

# Ashley Park Development Plan

**Ashley Park Development Plan**

Development Plan approved by the City of Whittlesea on 11 June 2009, in accordance with Clause 43-04 Schedule 5 of the Whittlesea Planning Scheme.

11/06/09 *Roseanne*  
Signature of the Responsible Authority

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***City of Whittlesea***

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# Part 1 Introduction



*City of Whittlesea*

# 1.0 Introduction

## 1.1 Role of the Development Plan/Background

This document constitutes the Development Plan for the area known as the Ashley Park Development Plan (APDP) area. The APDP located within Precinct 2B of the Mernda Strategy Plan (MSP) and has been prepared in accordance with the requirements of Clause 43.04 of the Whittlesea Planning Scheme, taking account of site features, opportunities and constraints.

The APDP applies to the following properties in Doreen:-

- 790 Bridge Inn Road;
- 820 Bridge Inn Road;
- 830-860 Bridge Inn Road; and
- 60 Orchard Road.

The APDP area is in accordance with the Development Plan boundaries identified in Plan 1.2 of the MSP (Figures 1A & 1B).

Preparation of a Development Plan is a statutory requirement that must be satisfied to allow for consideration of subsequent applications for subdivision, use or development of land within the MSP area.

This Development Plan has been formulated based, to a large extent, on the Ashley Park Development Plan submitted for the subject area on 24 April 2008. This was prepared by Coomes Consulting Group on behalf of GEO Developments Pty Ltd, Arthur and Dawn Christian and the Catholic Archdiocese of Melbourne. This document was supported by a series of specialist reports including:-

- archaeological survey;
- tree report;
- environmental assessment;
- flora and fauna assessment;
- contamination assessment;
- traffic engineering assessment;
- retail opportunity assessment;
- child care market assessment; and
- infrastructure assessment.

Figure 1A Mernda Strategy Plan

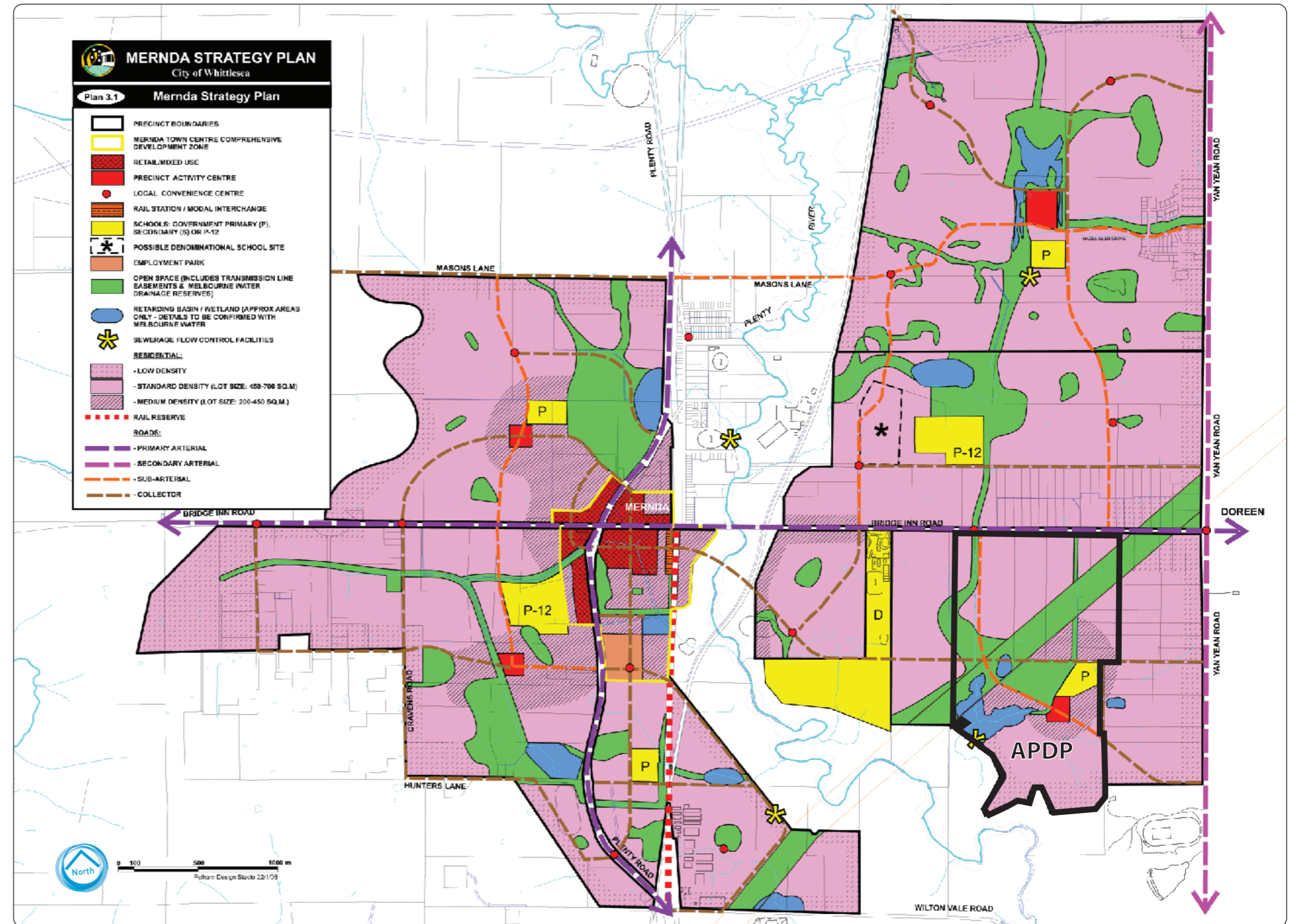
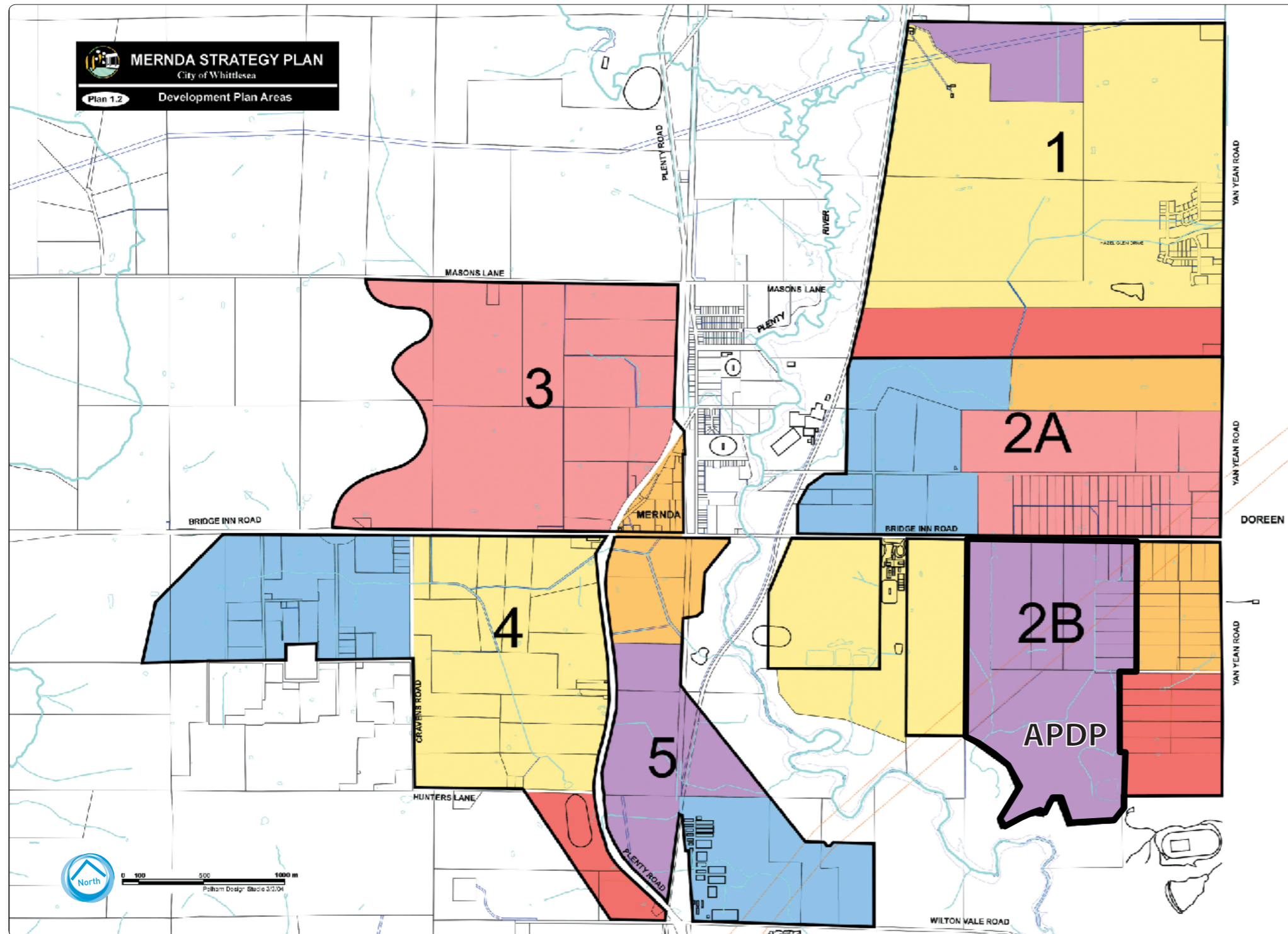


Figure 1B Mernda Strategy Plan/Development Plan Areas



Utilising the submitted Development Plan and accompanying specialist reports, the City of Whittlesea has refined the document to better reflect the objectives of the Mernda Strategy Plan in the implementation of the Development Plan.

This resultant document, the Ashley Park Development Plan (October 2008), will be exhibited for public comment to affected landowners/occupiers and relevant State Government Departments, agencies and authorities.

The role of the APDP is to facilitate the implementation of the strategic intent of the MSP by providing a more detailed and fine grained subdivisional and land use framework for the integrated development of the APDP area.

The MSP Incorporated Document, Development Contributions Plan and Reference Document contain a large amount of detail in relation to:

- design intent and vision;
- movement network and hierarchy;
- open space distribution;
- environmental conservation;
- social infrastructure and community development; and
- the location and composition of activity nodes.

Accordingly, the APDP seeks to implement and refine the vision and intent of the MSP via a detailed series of plans and accompanying text and respond to the key elements of the MSP, taking account of the local site features.

Any applications for planning permits within the APDP area will be assessed having regard to both the MSP (including the Incorporated Document, the Development Contributions Plan and the Reference Document) and the APDP, and must be deemed generally in accordance with all documents in order to gain approval.

## 1.2 Overall Objectives of the APDP

The objectives of the APDP are a natural extension of those objectives articulated in the MSP as they seek to implement the intent of the MSP at the neighbourhood/local level. Accordingly, the specific objectives of the APDP are to:

- respond to the MSP framework in terms of layout, design, landuse, open space and development contributions;
- respond to site features/characteristics and create a unique sense of place by establishing interesting, high quality and diverse streetscapes that engender a sense of place and identity;
- provide well proportioned streetscapes that consider the fundamental built form relationship between the private and public realm;
- establish a series of well defined and interlinked neighbourhoods capable of supporting non-car based modes of travel;
- support the establishment of a pedestrian scale, main-street based central neighbourhood activity node;
- support the establishment of a robust public realm by co-locating the school, active open space, community activity centre, child care centre and local retail and mixed use precinct;
- adopt a holistic approach to the overall design of the Development Plan, whilst ensuring each landholding can be developed simultaneously;
- define where further site analysis, site assessment and design work is required to be undertaken at the planning permit stage;
- provide linkages/connectivity to adjoining landholdings; and
- ensure a suitable interface/integration with Parks Victoria open space.

## 1.3 Design Philosophy

The City of Whittlesea has adopted an urban design vision based on Traditional Neighbourhood Design Principles and the key objectives of the MSP which requires both Council and developers to embrace new design and development paradigms including “neighbourhood planning, water sensitive urban design, transit orientated design, quality public realms and the celebration of natural and cultural heritage” (MSP, 2004:3).

Traditional Neighbourhood Design is essentially concerned with making places more sustainable, vibrant, safe, attractive and liveable through adoption of what is considered a more traditional urban form. Importantly, this design philosophy places increased emphasis on the character and quality of the public realm as the unifying character element that will link neighbourhoods.

The design of APDP is fundamentally underpinned by the Traditional Neighbourhood Design philosophy and preparation of any further detailed plans for key sites, such as the neighbourhood activity centre, must reflect this approach.

# Part 2 Planning Policy Context



*City of Whittlesea*



# 2.0 Planning Policy Context

## 2.1 State Planning Policy Framework

The State Planning Policy Framework (SPPF) of the Whittlesea Planning Scheme (the Scheme) provides the State level planning policy which the planning authority has to consider, and give effect to, in planning for the City of Whittlesea.

The SPPF contains a number of policies that are relevant to APDP area. Of particular relevance is Clause 12 – Metropolitan Development. This clause implements the objectives of Melbourne’s strategic document Melbourne 2030 and provides guidance on the future of Melbourne’s growth. The level to which the APDP is in accordance with Clause 12 will be discussed under Melbourne 2030 – Planning for Sustainable Growth.

The APDP is in accordance with the following policies of the SPPF:

### **Clause 14.01 – Planning for urban settlement**

The development will ensure that a sufficient supply of land is available for a range of uses including residential, commercial and recreational. The APDP is also in accordance with the objective which seeks to “facilitate the orderly development of urban areas” as the land is situated in a growth area and is serviced by infrastructure.

### **Clause 15.09 – Conservation of native flora and fauna**

#### **Clause 15.10 – Open Space**

The main objectives of these clauses are to “assist the protection and conservation of biodiversity, including native vegetation retention and provision of habitats for native plants and animals and control of pest plants and animals” and to “assist creation of a diverse and integrated network of public open space commensurate with the needs of urban communities and rural areas”. The APDP accords with these clauses in the provision of open space areas within the APDP area and the retention of existing flora and fauna being highly encouraged and taken into account in the design.

### **Clause 15.11 - Heritage**

Clause 15.11 seeks to conserve places for their natural, environmental, aesthetic, historic or cultural significance. Boundary Rider’s Cottage, located on the north boundary of the Development Plan area, is a “D” listed property within the Whittlesea Heritage Study (1991) and is also placed on the Heritage Victoria Inventory (H7922-0083). Issues pertaining to European and Aboriginal Cultural Heritage will be further discussed in Section 3.5.

### **Clause 15.12 – Energy Efficiency**

The APDP is in accordance with the objectives of this clause. The layout is generally based on a north-south oriented modified grid which will maximise the solar orientation of future housing lots. The APDP also provides for the consolidation of urban development proximate to existing and future residential development that will be serviced by public transport. The plan also encourages the consolidation of key uses, which when combined with a linked open space system and modified grid road network, encourages walking/cycling and minimises vehicle trips.

### **Clause 16.01 – Residential development for single dwellings**

The APDP will consist primarily of single dwelling allotments, with a diverse range of allotment sizes. They will have access to physical and community infrastructure including active recreation areas and additional facilities within the proposed activity centre.

### **Clause 16.02 – Medium density housing**

This clause seeks to encourage the development of well-designed medium density housing which improves housing choice, makes better use of existing infrastructure and improves the energy efficiency of housing. Medium density housing is proposed throughout the APDP area in strategic locations proximate to open space and shops/services. The provision of medium density housing will create diverse housing opportunities in the area.

### **Clause 17.01 – Activity Centres**

#### **Clause 17.02 – Business**

The APDP provides for an ‘activity centre’ and mixed use precinct. The activity centre and mixed use precinct will provide the opportunity for a wide range of land uses including retail facilities, community facilities, offices, entertainment venues and other commercial services. The precincts will be convenient and accessible by the local community and, as such, will reduce the dependence on private transport. The provision of these precincts will have a large community benefit.

### **Clause 18.02 – Car parking and public transport access to development**

#### **Clause 18.03 – Bicycle transport**

The objective at Clause 18.02-2 of the SPPF seeks to ensure that access is provided to new developments. In addition, Clause 18.03 seeks to encourage cycling as an alternative mode of travel within new developments. The APDP provides a high level of access to, and within, the subject land. Numerous entry points are provided into the development along Bridge Inn Road. Of these entry points, one sub-arterial road connects the development to Bridge Inn Road. As previously discussed, the subdivision design is based on a modified grid layout based around the framework set by internal and external collector roads and sub-arterial road. This design will facilitate the movement of pedestrian, cycling and vehicular traffic through the site. In addition, the provision of shared path facilities will encourage bicycle usage as an alternative mode of transport.

A detailed traffic report will be required prior to development of the land which will ensure that forecast traffic demand in the APDP area is verified and adequately addressed within the network.

### **Clause 18.07 – Education facilities**

A Government Primary School is proposed on the eastern boundary of the APDP area. This is to be located in close proximity to the proposed activity centre, mixed use precinct, active recreation area and higher density residential dwellings. Its provision will allow for the integration of education facilities within the local community and provide a focus for the neighbourhood.

### **Clause 18.09 – Water supply, sewerage and drainage**

This clause identifies the need to “plan for the provision of water supply, sewerage and drainage services that efficiently and effectively meet State and community needs and protect the environment”. Proposed drainage strategies and works affecting the subject land will ultimately require the approval of Melbourne Water. Similarly, Yarra Valley Water will be required to approve any details regarding the water supply and sewerage to the site. Any proposed development within the APDP area will therefore meet the requirements of the State Government, the relevant service authorities and local community needs.

### **Clause 18.12 – Developer contributions to infrastructure**

The Development Contribution Plan Overlay (Schedule 6) affects the subject site. Contributions payable will assist in the provision of arterial roads and intersections, public transport, open space, social and recreation facilities and off-road pedestrian, cycle trails etc, which will ultimately provide necessary infrastructure to the community.

### **Clause 18.13 - Telecommunications**

This clause identifies the importance of telecommunications in new developments. Any proposed development on the subject land will be in accordance with this clause.

#### **Clause 19.01 – Subdivision**

#### **Clause 19.03 – Design and built form**

This APDP is in accordance with Clause 19.01 which seeks to “ensure the design of subdivisions achieves attractive, liveable and sustainable neighbourhoods”. It is also in accordance with Clause 19.03 which seeks to enhance the liveability, diversity, amenity and safety of the public realm while promoting the attractiveness of the area. The APDP provides for an attractive and liveable neighbourhood by incorporating a mix of land uses including residential, retail, education and recreation. Higher density residential dwellings will contribute to a more compact neighbourhood and a more vibrant community. In addition, street footpath and shared path connectivity will enhance walkability within the subject site. The layout will promote surveillance of open space areas and shared path networks. The proposed open spaces will also provide vital recreation space for the community as well as providing space to retain and enhance existing vegetation within the site.

## **2.2 Melbourne 2030 – Planning for Sustainable Growth**

Melbourne 2030 is a State-wide strategic document with overarching principles including sustainability, innovation, adaptability, inclusiveness, equity, leadership and partnership in conjunction with a number of directions, policies and initiatives all aimed at guiding Melbourne’s future growth and development.

#### **A More Compact City**

This direction seeks to intensify specific areas of Melbourne by utilising “existing settlement patterns and current investments in transport and communications, water and sewerage, and social facilities”. The purpose of this direction is to provide greater efficiency and to better respond to the changing needs of the population. The APDP area is located within the Urban Growth Boundary within areas zoned to accommodate Melbourne’s future growth and as such assists in creating a more compact city.

#### **Better Management of Metropolitan Growth**

The APDP addresses the policies and initiatives within this direction. The proposed development will eventually be served by high-capacity public transport upon construction of the railway extension to Mernda, services and infrastructure will be available early in the development process and designated green wedge areas are not affected by the proposed development within the APDP area.

#### **A More Prosperous City**

A stronger and more innovative economy is the key aim of “A more prosperous city”. The APDP area is to include an activity centre and mixed use precinct which will assist in increasing local economic growth within the area. Furthermore, provision of telecommunications conduits at the early stage of development will result in better equipped business activity and encourage home-based employment.

#### **A Great Place to be**

The APDP area has been designed to ensure a functional and practical subdivision that incorporates connectivity for many modes of transport including walking and cycling. It also protects heritage places and provides open space areas for recreation.

#### **A Fairer City**

A fairer city seeks to incorporate a “fairer distribution of social and cultural infrastructure” in new communities. This is to be coordinated so that the infrastructure is implemented at an early stage in the development process. The APDP proposes social infrastructure including an education facility. The proposed activity centre and mixed use precinct will include social and community facilities in the future creating a more socially sustainable local environment for the community. A variety of lot sizes will ensure that diverse housing options will be available. This will provide future residents with more affordable housing products.

#### **A Greener City**

The plan is in accordance with this direction which seeks to “protect and preserve Victoria’s natural capital for present and future generations”. The modified grid subdivision design will assist with the movement of pedestrians, cyclists and vehicular traffic through the site. In addition, the provision of a school, shops, retail facilities and a wide range of services within the site will encourage alternative modes of transport such as cycling and walking over private motorised trips. The result of which will be improved air quality and reduced carbon emissions. The retention of vegetation on the site within conservation parklands and local parks will ensure that the APDP area has ‘green’ space for the community to enjoy and more importantly, will preserve natural ecosystems.

## **2.3 Whittlesea Growth Area Plan – A Plan for Melbourne’s Growth Areas**

Whittlesea is affected by a growth area plan titled ‘A plan for Melbourne’s growth areas’. This framework plan applies to the five designated growth corridors in Melbourne and describes how growth will be managed. The APDP is located within the Mernda/ Doreen growth corridor in the City of Whittlesea. It is noted that although there will be a gradual decline in the overall share of new households locating to the growth areas, “substantial future growth will still occur and will require a new approach to planning and coordination”. The plan indicates that new developments will be expected to achieve higher standards in neighbourhood design, environmental sustainability and housing diversity.

The Whittlesea growth area plan encourages affordable housing choices, well designed communities that promote safe and healthy community life and the delivery of infrastructure and services sooner. The APDP provides additional affordable and diverse housing options; provides better access to community facilities, shops, schools and recreation areas; provides safe walking and cycling paths which will help create a healthy and active community life; and will incorporate sustainability initiatives including maximising north-south solar orientation of lots and water sensitive urban design.

The development of land in the APDP area is in accordance with the growth area plan ‘A plan for Melbourne’s growth areas’.

## 2.4 Municipal Strategic Statement

The Whittlesea Planning Scheme's Municipal Strategic Statement (MSS) provides a more detailed strategic framework for the City of Whittlesea. The MSS states that the City of Whittlesea will "adopt a long-term outlook in working toward sustainable outcomes in housing provision, employment generation and preservation and enhancement of rural areas and features of environmental significance".

The main strategic objectives of the City of Whittlesea included within the MSS are:

- planning for a diverse range of residential communities;
- managing urban growth effectively;
- increasing the diversity and quality of housing within the municipality;
- creating a better housing/jobs balance;
- establishing an efficient transportation system that improves accessibility for residents;
- establishing and maintaining physical and social infrastructure in an efficient manner;
- upgrading and improving the image and appearance of the municipality through urban and landscape design improvements;
- protecting and enhancing local environmental assets to maintain ecological processes;
- addressing and planning for the leisure and recreation needs of existing and future residents; and
- increasing the protection of the City of Whittlesea's Aboriginal and European heritage.

The APDP will accommodate diverse housing options within an area that is earmarked for residential development in the Mernda Strategy Plan. In addition, the APDP retains vegetation in conservation parklands and local parks and also seeks to retain significant heritage elements. The APDP also proposes future education, retail and recreation facilities, and is thus considered to be in accordance with the objectives of the MSS.

## 2.5 Local Planning Policies

### Open Space Policy

The Open Space Policy (Clause 22.01) of the Scheme relates to the provision of open space in the Municipality.

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".

Section 4.4 describes APDP's response to the objective and directions of the Policy.

### Subdivision Design Policy

The Subdivision Design Policy (Clause 22.04) of the Scheme applies to subdivision for residential, rural residential, rural living, industrial and commercial development.

The objectives of this Policy are as follows to:

- achieve appropriate site responsive subdivision design for the creation of new undeveloped allotments for residential, rural residential, rural living, industrial and commercial development;
- define and evenly apply municipal planning objective for subdivision design;
- create a sense of place and community focus through subdivision design;
- promote subdivision that ensures integration, lot size diversity, efficient open space provision, movement, and appropriate streetscape design; and
- define the need for and requirements for site analysis procedures.

The Site Analysis and Design Response Sections following provide a comprehensive explanation as to how the APDP responds to these objectives.

### River Red Gum Protection Policy

The River Red Gum Protection Policy (Clause 22.10) of the Scheme applies to the protection of River Red Gums located in urban and rural areas.

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".

The Site Analysis and Design Response Sections following provide a comprehensive explanation as to how the APDP responds to these objectives.

### Development Contributions Plan Policy

The Development Contributions Policy (Clause 22.11) of the Scheme applies to new residential and non-residential subdivisions in the Municipality.

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".

The MSPDCP applies to the subject site and details the specific development contributions obligations for APDP. Section 5.4 (Open Space) and Section 6 (Development Contributions) provides more detail in this regard.

### Telecommunications Conduit Policy

The Telecommunications Conduit Policy (Clause 22.13) of the Scheme applies to subdivision and the construction of dwellings and other buildings and works in the Municipality.

The objective of the Policy is "to ensure provision of conduits for optical fibre cabling, to facilitate future installation of advanced telecommunications services".

This objective will be implemented via planning permit conditions at the time of subdivision.

## 2.6 Incorporated Documents

### Mernda Strategy Plan

The Mernda Strategy Plan (MSP), along with the associated Mernda Strategy Plan Development Contributions Plan (MSPDCP), are incorporated documents within the Whittlesea Planning Scheme. The MSP and MSPDCP were approved by the Minister for Planning as part of Amendment C30 (Part 2) to the Whittlesea Planning Scheme on 21 October 2004.

The MSP provides broad level guidance to the development of land in the Mernda/Doreen component of the Plenty Valley growth corridor. It sets out Key Objectives and Strategic Actions that will be applied in all stages of the planning process. Furthermore, individual Precinct Plans were derived from the overall MSP to provide more detailed site specific guidance on land use and design requirements. All Development Plans are to be generally in accordance with the relevant Precinct Plan and its objectives, in this case Precinct 2B. Where Development Plans propose minor departures from the Precinct Plan it must be demonstrated that any modified design remains consistent with the Key Objectives and Strategic Actions.

The Precinct Plan for Precinct 2B of the MSP will be discussed in greater detail in Section 4.

## 2.7 Zoning & Overlays

This section of the report provides a brief outline of the statutory and strategic planning context applicable to the APDP area.

### Zoning

The APDP area is wholly contained within the Residential 1 Zone (R1Z) (refer Figure 2). In addition to implementing the State and Local Planning Policy frameworks, the purposes of the R1Z are to:

- provide for residential development at a range of densities with a variety of dwellings to meet the housing needs of all households;
- encourage residential development that respects the neighbourhood character; and
- allow educational, recreational, religious, community and a limited range of other non-residential uses in appropriate locations, to serve local community needs.

The APDP area provides for housing diversity with a combination of standard and medium densities and the introduction of mixed-use development. The development will also provide a wide range of non-residential uses, including educational facilities, shops and active open space, to better respond to community needs.

### Overlays

The APDP area is affected by a number of overlays, including:

- Development Plan Overlay (DPO5);
- Development Contributions Plan Overlay (DCPO6);
- Design and Development Overlay (DDO4);
- Incorporated Plan Overlay (IPO1);
- Vegetation Protection Overlay (VPO1);
- Public Acquisition Overlay – (PAO1); and
- Wildfire Management Overlay – (WMO).

The latter two, PAO1 and WMO abut the southern boundary of the APDP area and relate to land in the proposed future Plenty Gorge Park.

### Development Plan Overlay (DPO5)

The majority of the APDP area is affected by Schedule 5 to the Development Plan Overlay (DPO5) (Figure 3). In addition to implementing the State and Local Planning Policy Frameworks, the purposes of the DPO are 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 the land; and
- exempt an application from notice and review if it is generally in accordance with a development plan.

Schedule 5 of the DPO seeks to facilitate the orderly development of the subject land in accordance with the Mernda Strategy Plan (MSP). The schedule also requires a Development Plan to be prepared for each precinct within the MSP. The preparation of this document seeks to satisfy the requirements of the DPO.

Figure 3 also includes a DPO1 designation within the APDP boundary. This is a map error within the Planning Scheme and only DPO5 should apply to this part of the APDP area.

### Development Contributions Overlay (DCPO6)

The subject land is affected by a Development Contributions Plan Overlay (DCPO6) (refer Figure 4). This overlay requires the preparation of a development contributions plan for the purpose of levying contributions for the provision of works, services and facilities before development can commence.

The MSPDCP, which is an incorporated document in the Whittlesea Planning Scheme, details the development contributions applicable to the MSP area and to the specific Precinct 2B within which the APDP is located. Preparation of a Development Contributions Plan specific to the APDP area is therefore not required. The timing and staging of development contribution payments will be addressed as a condition in the subdivision planning permits affecting the subject land.

### Design and Development Overlay (DDO4)

The Design and Development Overlay (DDO4) affects the subject land and relates to residential areas in Mernda and Doreen (Figure 5). The design objectives of this overlay are to:

- implement the overall objectives of the Mernda Strategy Plan through subdivision stage specific design elements;
- recognise, protect and enhance the special character of the broader Plenty Valley cultural landscape; and
- encourage environmentally sound and energy efficient development.

The schedule to this overlay requires the preparation of a Design and Development Plan which is to be approved by the responsible authority prior to the issue of a planning permit for the construction of a building or the carrying out of works on individual allotments contained within the relevant subdivision stage plans. Common practice within the MSP area is for the requirement for preparation of a Design and Development Plan to be included as part of planning permits for subdivision and development for individual stages or estates within the relevant Development Plan area. Matters such as building setbacks, building height, maximum site coverage, materials and finishes and energy efficiency will all be addressed within the Design and Development Plan.

### Incorporated Plan Overlay (IPO1)

The APDP area is also affected by the Incorporated Plan Overlay (IPO1) (Figure 6). This overlay requires the preparation of an incorporated document to guide the form and conditions of future use and development. The MSP constitutes the approved Incorporated Plan for this area.

### Vegetation Protection Overlay (VPO1)

The APDP area is affected by a Vegetation Protection Overlay (VPO1) (Figure 7). VPO1 relates to the protection of significant vegetation (River Red Gum Grassy Woodland). In addition to implementing the State and Local Planning Policy Frameworks, the purposes of the VPO are to:

- protect areas of significant vegetation;
- ensure that development minimises loss of vegetation;
- preserve existing trees and other vegetation;
- recognise vegetation protection areas as locations of special significance, natural beauty, interest and importance;
- maintain and enhance habitat and habitat corridors for indigenous fauna; and
- encourage the regeneration of native vegetation.

Schedule 1 to the VPO requires a planning permit to remove, destroy or lop any native vegetation on the subject land.

### Public Acquisition Overlay (PAO1)

Although not affecting the APDP area directly, a Public Acquisition Overlay (PAO) abuts the subject land to the south and south-west (Figure 8). The purpose of this overlay is to identify land which is proposed to be acquired by a public authority. In this instance, the PAO has been applied to this land to allow Parks Victoria to acquire land for open space purposes. The PAO on the adjoining property also ensures that any use or development that might occur on the land will not conflict with the proposed purpose of the land.

### Wildfire Management Overlay

The Wildfire Management Overlay (WMO) similarly only affects adjoining land to the south and south-west of the APDP area (Figure 9). The WMO identifies areas prone to wildfire where there could be a threat to life and property. This overlay seeks to ensure that development has regard to fire protection objectives and outcomes.

Figure 2 Residential 1 Zone

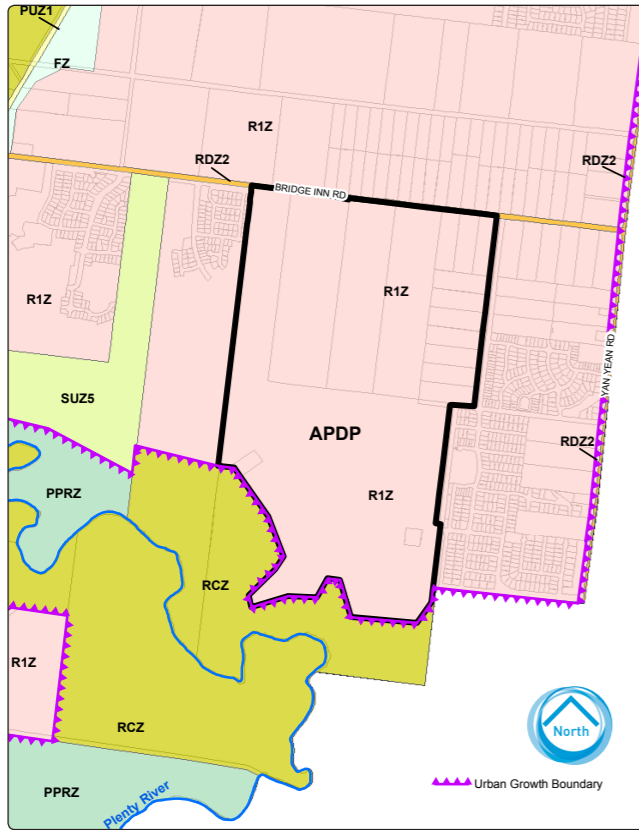


Figure 4 Development Contributions Plan Overlay

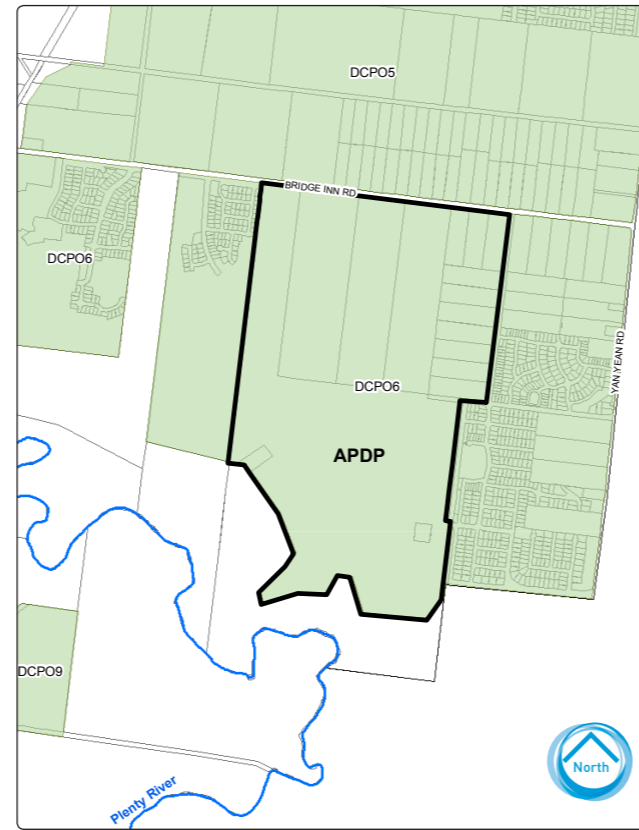


Figure 6 Incorporated Plan Overlay

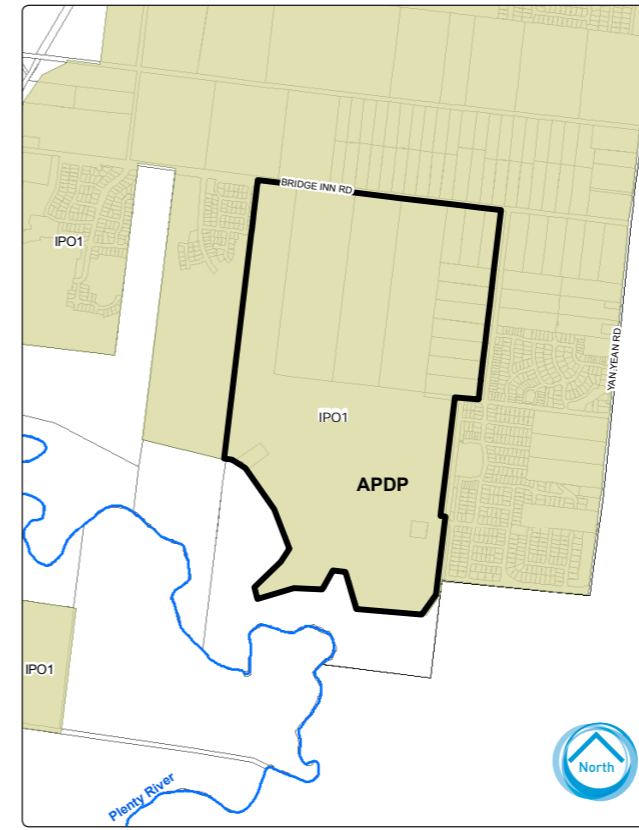


Figure 8 Public Acquisition Overlay

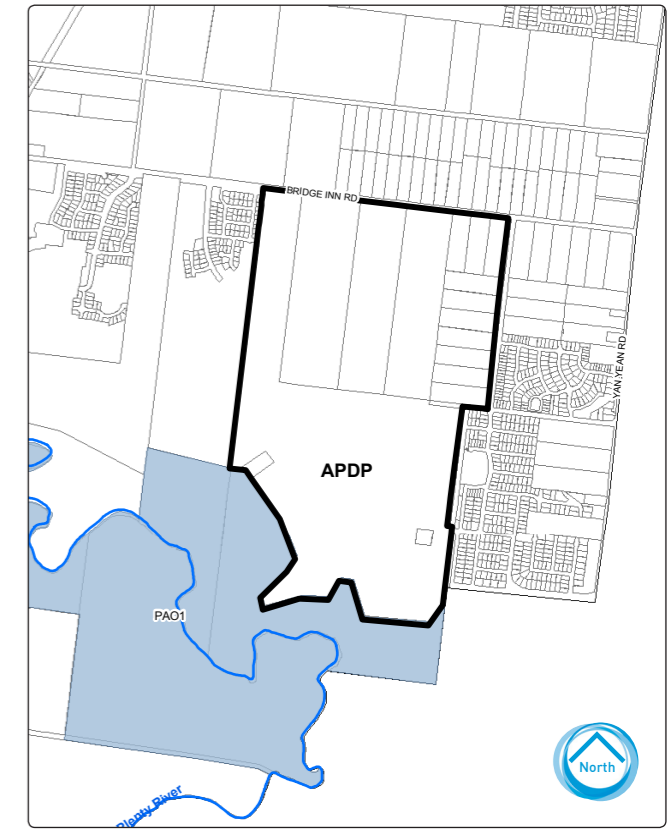


Figure 3 Development Plan Overlay

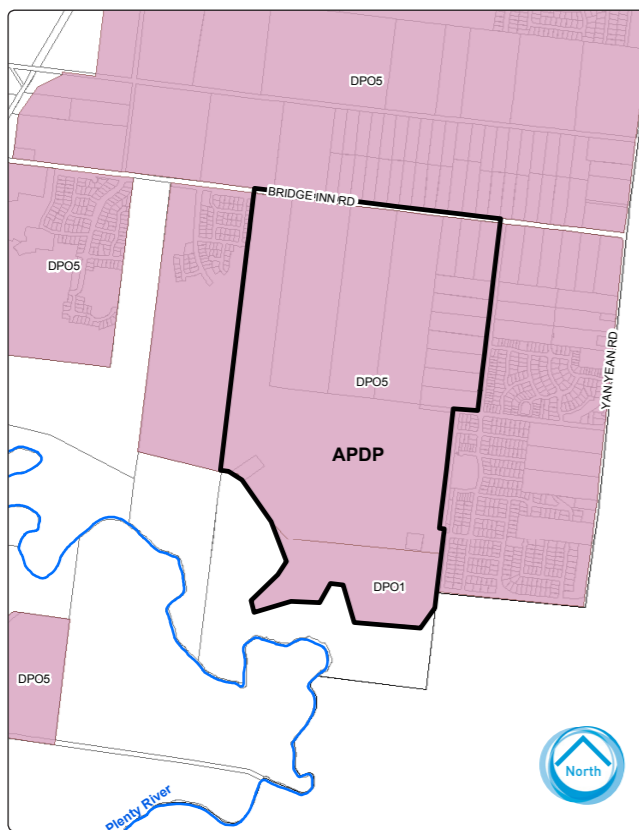


Figure 5 Design and Development Overlay

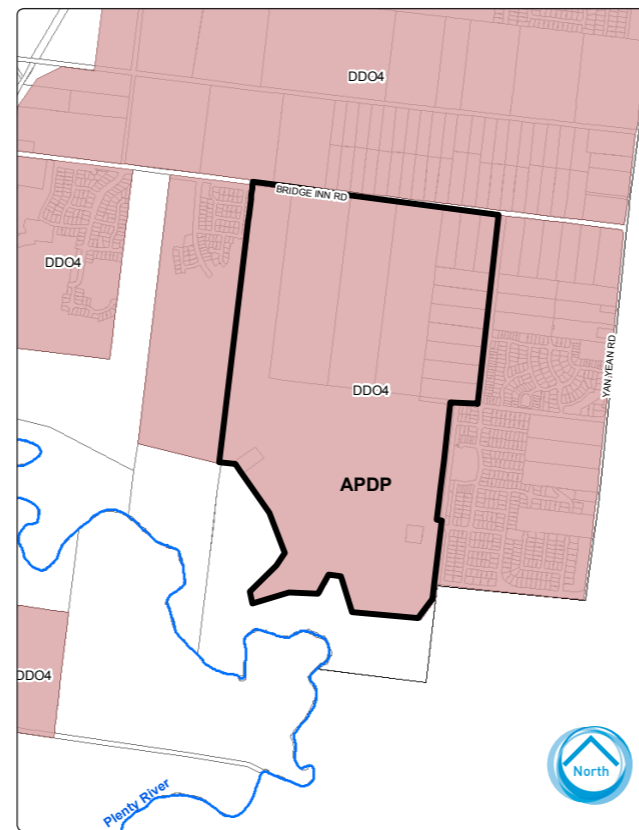


Figure 7 Vegetation Protection Overlay

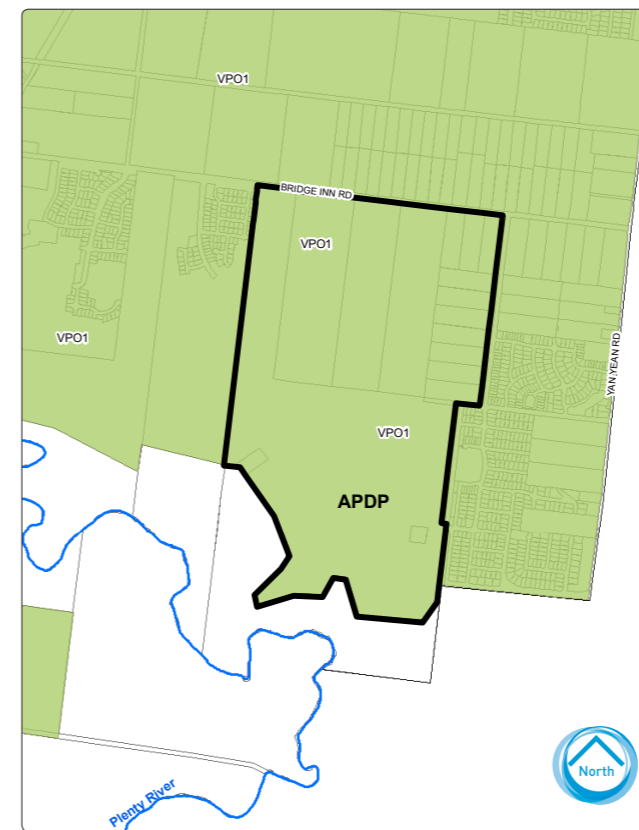
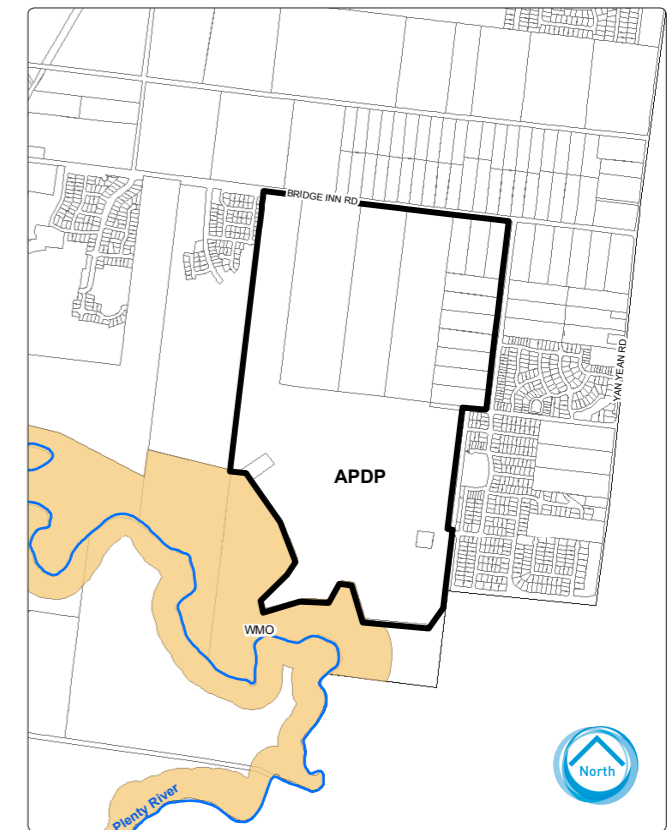


Figure 9 Wildfire Management Overlay



# Part 3 Site Analysis



*City of Whittlesea*

# 3.0 Site Analysis

## 3.1 Site Context

An overall site analysis was undertaken in order to inform preparation of the MSP. Further detailed studies building on this earlier work, have been undertaken to inform the preparation of the APDP.

The subject site is located in Precinct 2B of the MSP, forming part of the Plenty Valley growth corridor. It is situated within the suburb of Doreen, approximately 30km to the north-east of the Melbourne Central Business District forming part of the Plenty Valley growth corridor (Figure 10).

The APDP area is the only remaining part of MSP Precinct 2B which does not have a Development Plan approved. As illustrated in Figures 11 and 12, the APDP is situated south of Bridge Inn Road between the New Haven Estate to the west, the Promenade Estate/Garden Road Development Plan to the east and the Plenty Gorge Parklands to the south.

Figure 10 Metropolitan Context

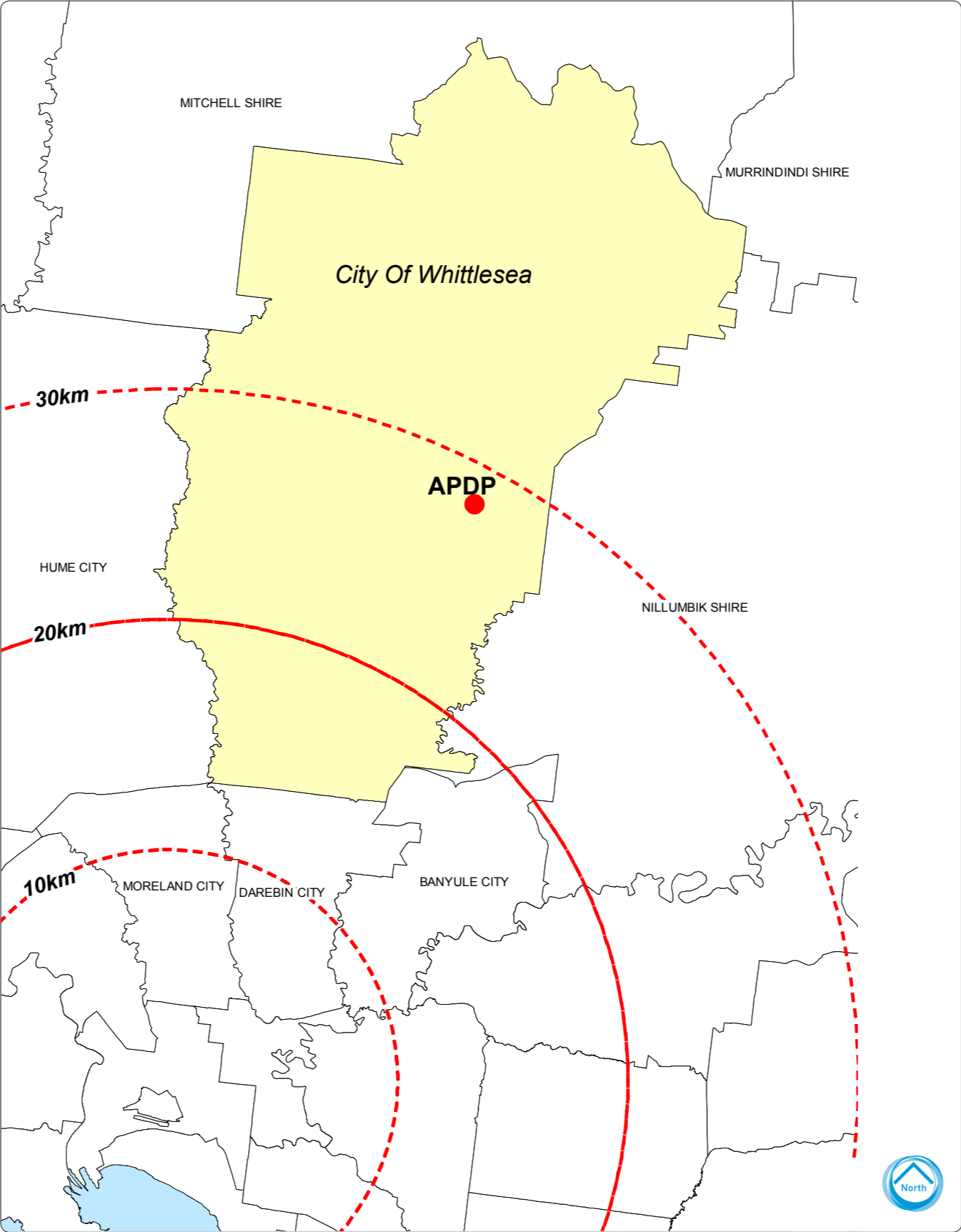


Figure 11 Local Context

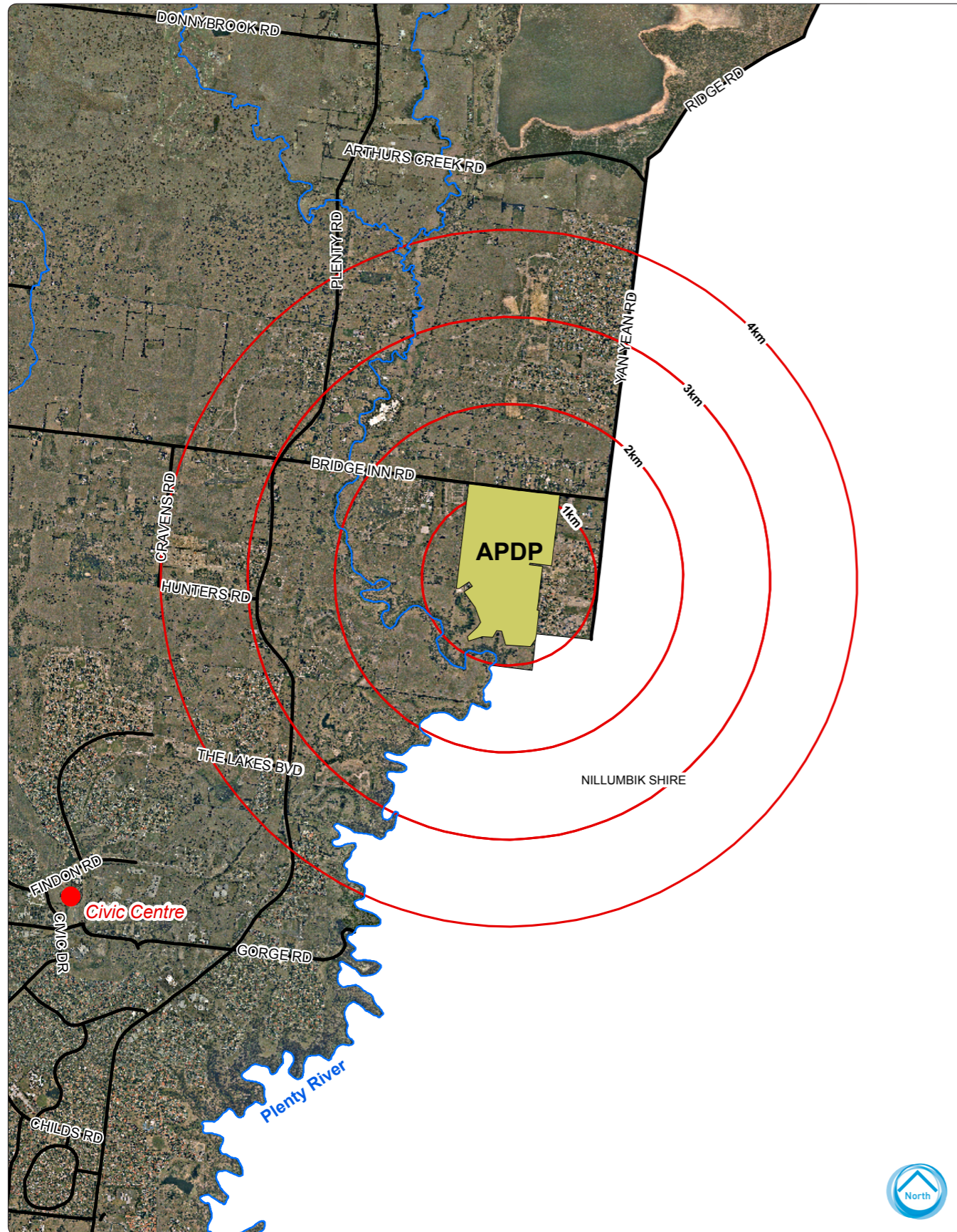
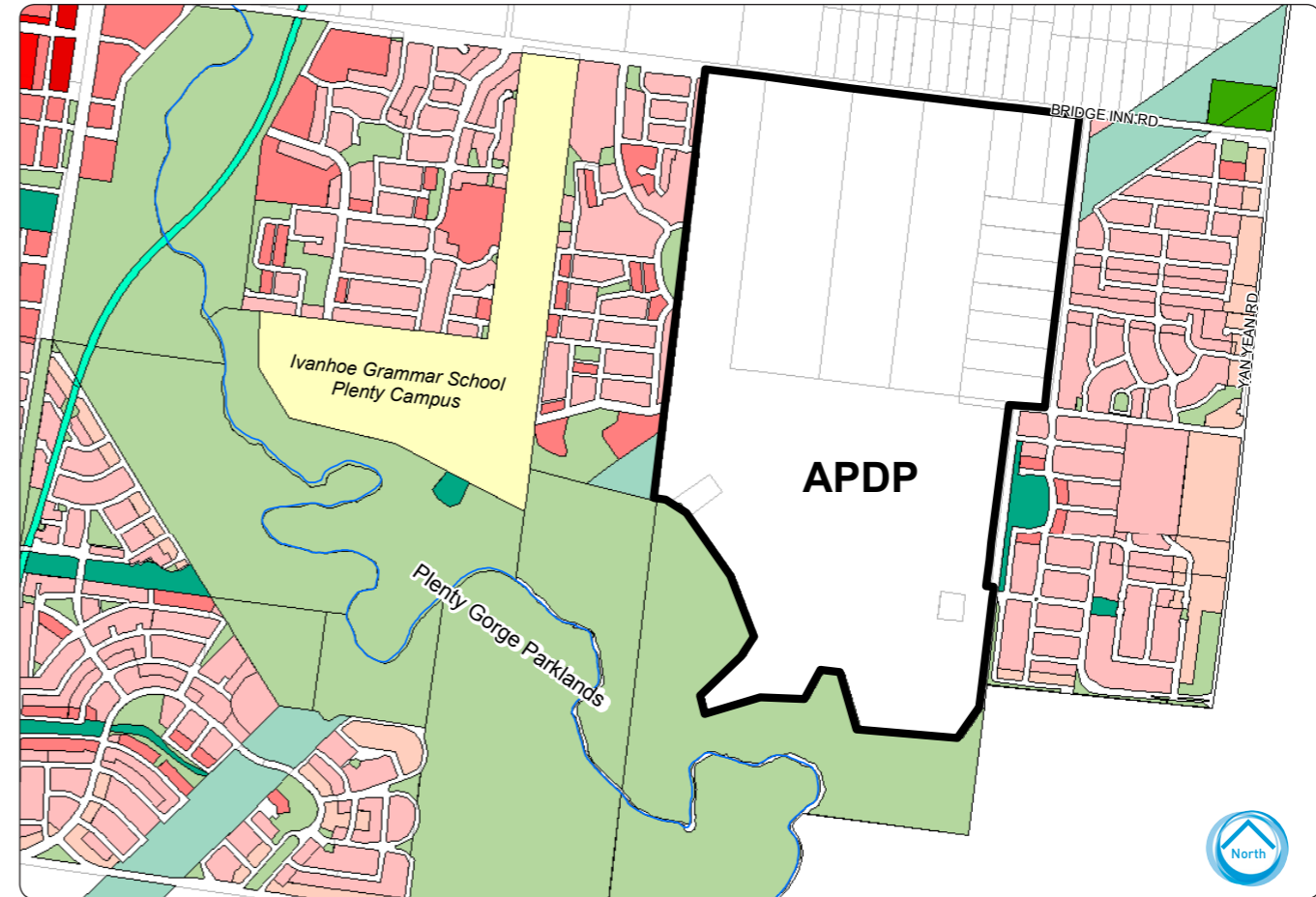


Figure 12 Development Context





### 3.2 Existing Landholdings

The APDP site comprises a number of landholdings of varying sizes. These landholdings are currently controlled by four different landowners as identified in Figure 13.

The entire subject site has historically been used for pasture and grazing. In association with the agricultural use of land, a number of potential sources of contamination have been identified in a Preliminary Site Assessment Study undertaken by Atma Environmental (2007). These sources included an incinerator located with current and former buildings, above ground fuel storage tanks, an area of fuel storage drums, a drainage channel, pond sediments and fill material in roadways and the dam banks (Atma Environmental, 2007 & Beverage Williams, 2008).

Accordingly, further detailed site assessments will be required for each property as part of any subsequent planning permit applications.

Figure 13 Landholding Details



### 3.3 Topography, Soils & Visual Character

#### Topography

The APDP site is undulating open pasture with a series of ridges that divide the sparse flat plains. There are a series of ridges throughout the site with four distinct high points (Figure 14). These ridges along with the stony rises in the middle of the western boundary are important features and give rise to topographical relief of the subject land. It is also important to note that the three existing homesteads are located on each of these high points.

A portion of low lying land traverses through the APDP area from the north-east, bisecting the APDP area and heads westerly where it joins up with the Plenty River. This alignment forms the main natural drainage line.

#### Visual Character (Viewlines)

The gentle undulating pasture, together with the ridge lines and large expanses of mature River Red Gum trees are significant features which create an attractive setting for the future development of a community and neighbourhoods. In particular, the significant viewlines include, but are not limited to:-

- views to the east, south-east of the Promenade estate;
- views to the west of the New Haven estate and the Plenty Gorge Parklands; and
- views to the south of the Plenty Gorge Parklands.

These viewlines are demonstrated in Figure 14.

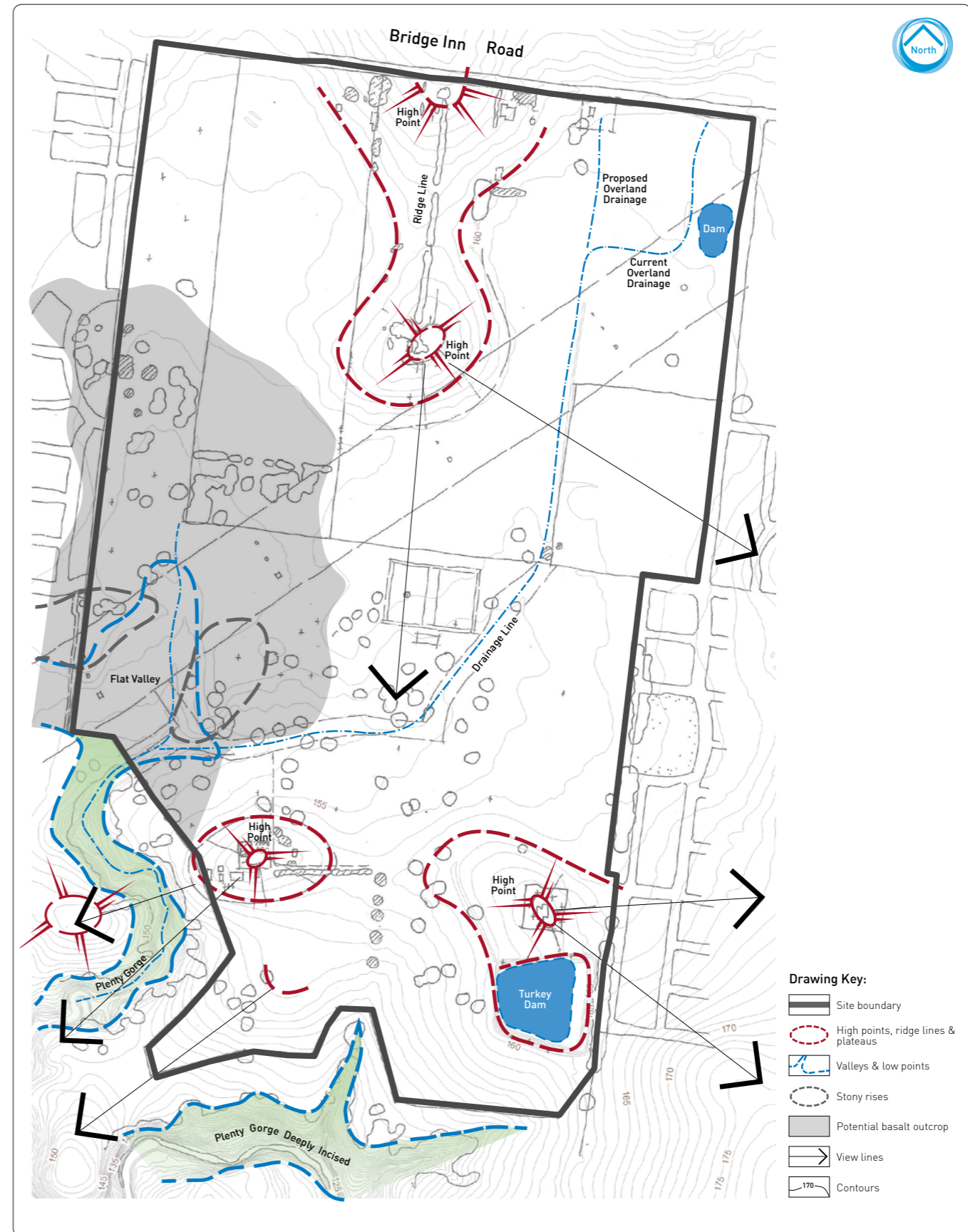
The high voltage power lines and pylons bisect the subject site in a north-east to south-west direction. While the pylons and lines are visually dominant at close range, their impact is lessened by the presence of large stands of mature River Red Gum trees.

#### Soil

The Mernda/Doreen area is characterised by an underlying geology and geomorphology. The subject site is located within the basalt plains which are not uniformly flat, as they contain a number of features, including stony rises, creeks and rivers and ephemeral lakes or soaks (Cochrane et al. 1990:158 cited in TerraCulture, 2007).

The soil profile is predominantly Clayey Silt overlaying Silty Clay subsoils, with prevalent basalt floaters and weathered siltstone scattered across the site (Atma Environmental, 2007 & TerraCulture, 2007).

Figure 14 Site Analysis - Topography



### 3.4 Flora and Fauna

An assessment of the flora and fauna present within APDP was undertaken by Ecology Partners. A flora assessment was undertaken in early September 2007 and a fauna assessment was undertaken in late September 2007. Further, a detailed assessment of the trees on the site was undertaken by John Fordham Horticultural Services between June and August 2007 and an additional survey in March 2008. Below is a summary of the findings of these assessments.

#### Flora

The flora located within the APDP site generally reflects that of a landscape modified by vegetation clearance, pasture improvement, fertilizer application and weed invasion, and as such, is of varying quality and diversity. However, what is unique about the APDP site is the quantum and quality of remnant, indigenous River Red Gums which are present as isolated individual gums and in copses.

#### Vegetation Communities (Ecological Vegetation Classes)

The assessment undertaken by Ecology Partners, 2008, did not record any national or state significant flora species. The assessment notes that there are overstorey remnants of Plains Grassy Woodland Ecological Vegetation Class (EVC) 55 and Dry Grassy Forest (EVC 22), however the understorey within the APDP area is dominated by introduced pasture grasses associated with past agricultural land management practices.

Plains Grassy Woodland is characterised by open River Red Gum woodland with an understorey comprising of a few sparse shrubs and a grassy and herbaceous ground layer. Within the APDP area the understorey species are absent, however, the majority of the study area contains overstorey remnants of this EVC such as River Red Gums. Furthermore, Plains Grassy Woodland is currently listed as Endangered within the Victorian Volcanic Plains Bioregion.

Dry Grassy Forest is characterised by an open forest, or woodland, of eucalypts over an understorey of sparse shrubs, drought tolerant grasses, herbs and ferns. Overstorey remnants of this EVC comprising of Yellow Box were located in a small area in the south-west corner of the APDP area with one specimen near the western boundary of APDP area.

#### River Red Gums

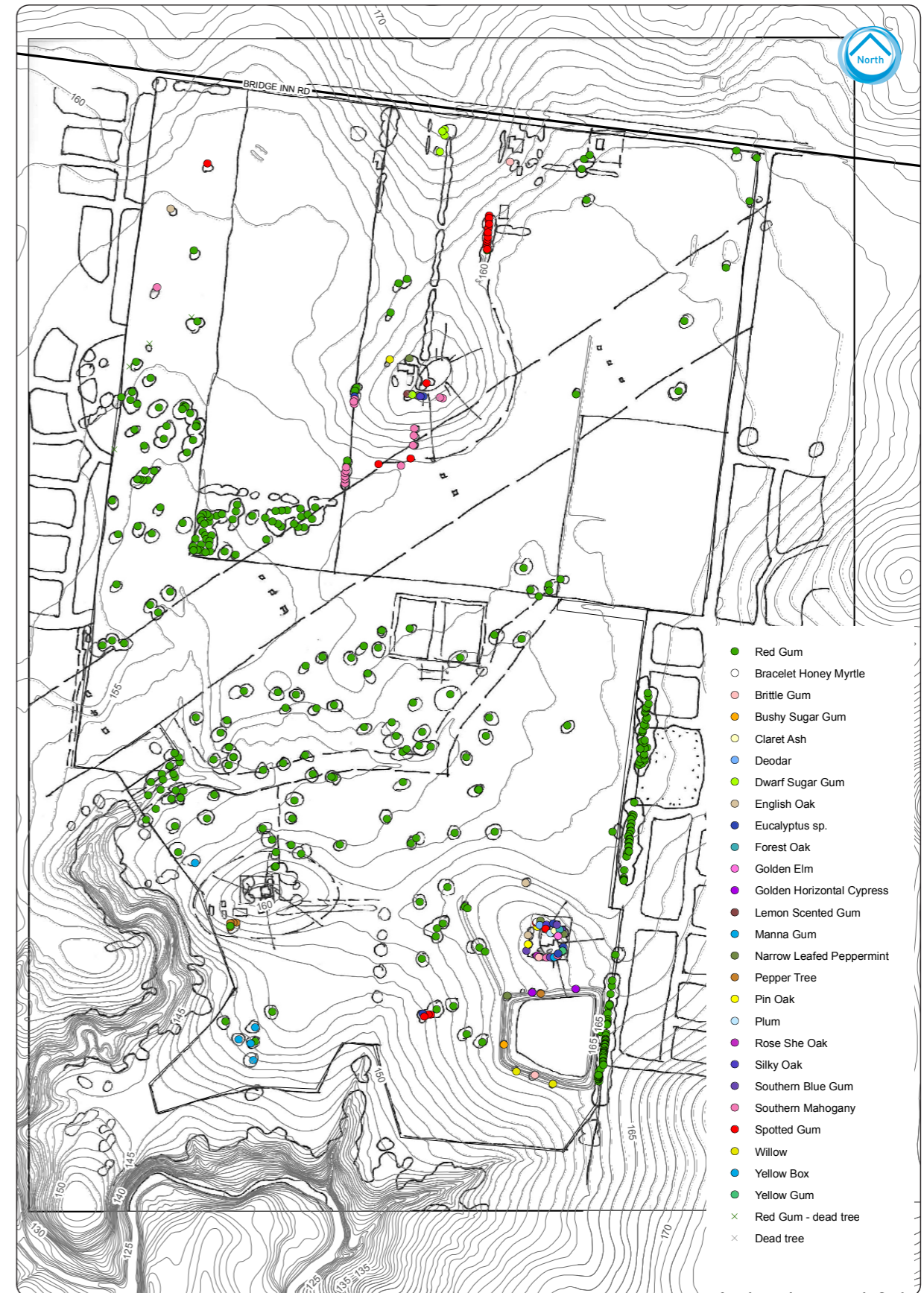
River Red Gums are scattered throughout the APDP area, both as isolated individual trees or in copses. The importance of protecting River Red Gums is specified within the Whittlesea Planning Scheme (Clause 22.10). River Red Gums are also a listed vegetation community of State significance under the Flora and Fauna Guarantee Act 1988 (VIC) – Western Basalt Plains (River Red Gum) Grassy Woodland Floristic Community 55-04. In addition, River Red Gums within this bioregion are also part of the endangered EVC 55 (Plains Grassy Woodlands).

While larger trees and trees located in copses are prioritised for protection in Clause 22.10, isolated, scattered remnant trees are also important to protect for their habitat qualities and visual and natural heritage values.

A detailed assessment of the site's vegetation was undertaken by John Fordham Horticultural Services between June and August 2007. This assessment considered the arboricultural merits of over 407 trees and was supplemented by a further study of an additional 26 trees in March 2008. Figures 15 and 16 illustrate the findings of these studies. Figure 15 demonstrates that the majority of trees within the APDP area are River Red Gums. Figure 16 graphically demonstrates the arboricultural recommendations for each tree. A large proportion of these trees are considered very old and large, with many over 180 years in age (Ecology Partners, 2008).

Some River Red Gums on the site are considered to be in poor health due to ongoing drought conditions and the continuation of farming activity around them. These trees will require protection zones to prevent further damage.

Figure 15 Site Analysis - Tree Species



Other species of trees are present within the subject area such as pine wind rows, planted non-indigenous eucalypts, however, they were not surveyed as they are not protected under current legislation. Notwithstanding this, many of these are of very high quality and where possible, will be retained.

The findings of John Fordham Horticultural Services and Ecology Partners are considered in the next chapter and a design response is prepared which identifies core stands and significant isolated trees for retention and identifies trees which may be potentially considered for removal.

**Permit Condition Requirements**

As part of all subdivision planning permit applications, a survey plan of the canopy and estimated root zone of all trees must be prepared including an appropriate tree protection zone, to the satisfaction of Council, where a tree is proposed for retention. Reference must be made to the recommendations within the APDP with respect to all subject trees affected by the application. An accompanying arborist's assessment of each tree must also be provided, unless previously submitted and considered current. The arborist's report must make recommendations regarding the health of each tree, and indicate whether the tree contains hollows etc that may be used as habitat for fauna.

Non-native trees, although not requiring a permit for their removal (unless they are subject to heritage controls) must also be shown on the survey plan and arborist's assessment.

**Fauna**

The large, old River Red Gums which occupy the site provide habitat for a range of common native fauna species. All species recorded are of local significance except for the Hardhead (*Aythya Australis*), which is classified as a bird species of State significance. Whilst 38 state significant species have been identified within 10 kilometres of the study area, Ecology Partners, 2008, assert that there is no critical or limiting habitat for any of these species within the study area.

**Conservation Significance**

Ecology Partners (2008) identified several areas of conservation significance comprising remnant vegetation patches and scattered trees, which are illustrated in Figure 17. In summary, the assessment identified that the APDP area contains an estimated 0.62 habitat hectares of high conservation woodland containing 41 Large Old Trees. In addition, 178 scattered trees with depleted understorey are located outside of these remnant patches.

It must be noted that references to trees to be removed/retained within Figure 17 are the recommendations from Ecology Partners (2008) report and do not represent the approved tree removal/retention for the APDP area.

In relation to fauna, Ecology Partners conclude that all native fauna recorded were of local significance, as they were not listed as rare or threatened at a National, State or Regional level.

Figure 16 Site Analysis - Arboricultural Recommendations

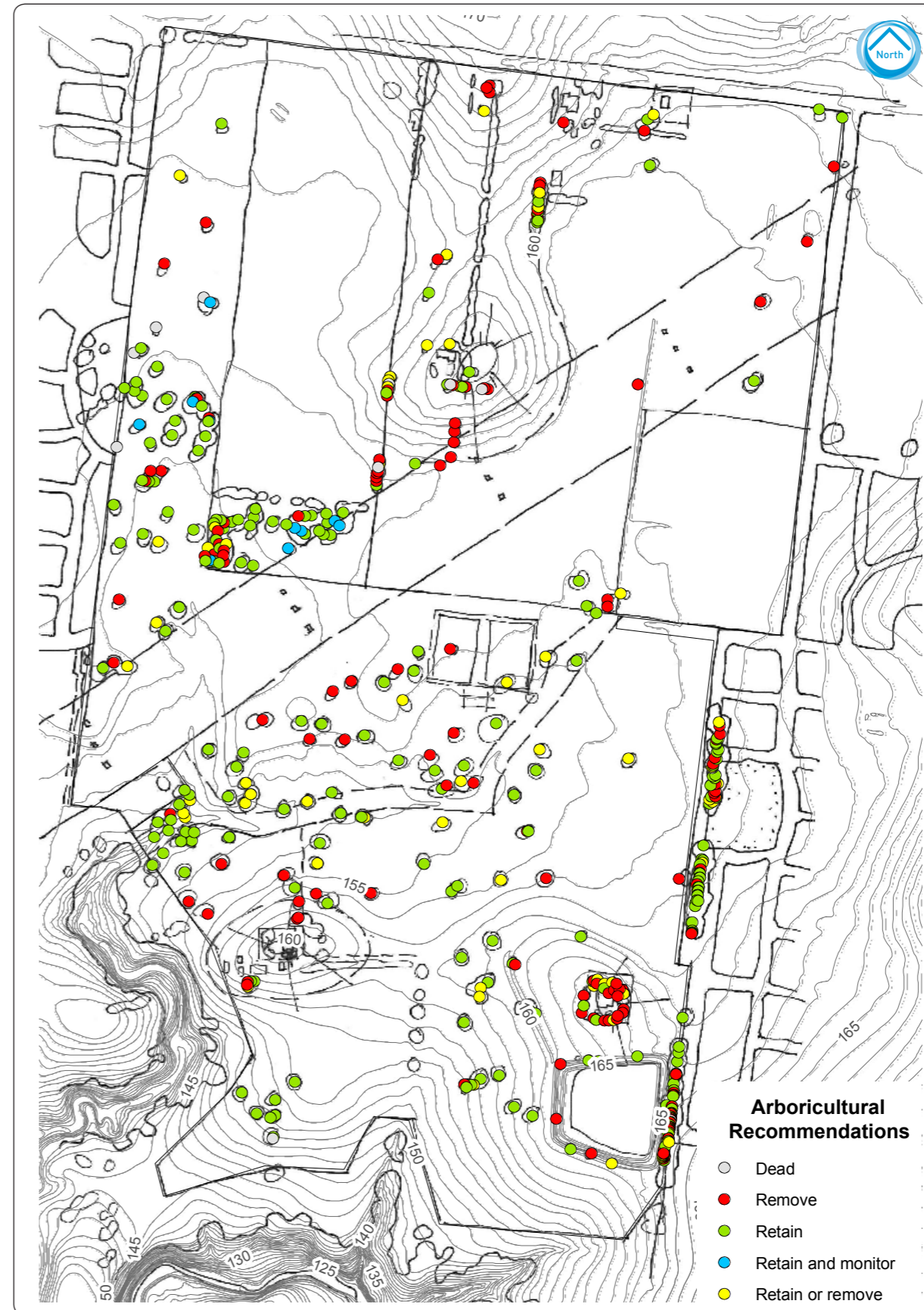
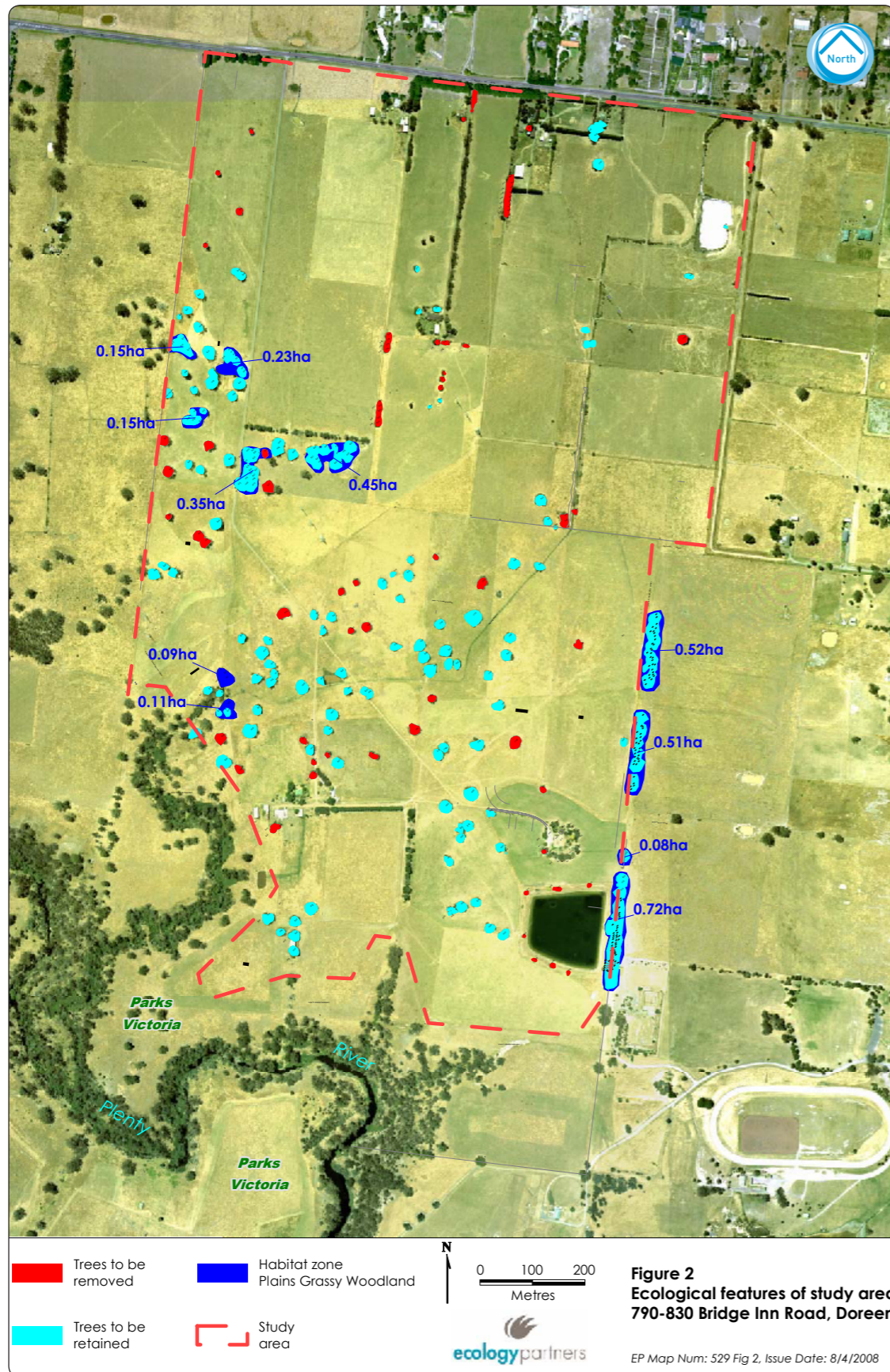


Figure 17 Site Analysis - Ecological Features



### 3.5 Heritage

An archaeological survey of the APDP area was undertaken by TerraCulture (May 2007). This assessment noted that there are a number of Aboriginal and European sites of significance and potential significance within the APDP area. The location and level of significance of these sites can potentially impact upon the developable land within the APDP.

#### Aboriginal Cultural Heritage

In summary, TerraCulture (May 2007) notes that 10 Aboriginal archaeological sites are recorded, whilst the majority of these are located to the south of the APDP boundary, several areas of potential archaeological sensitivity are identified throughout the study area. These findings are illustrated in Figure 18.

As part of their assessment TerraCulture reviewed the Aboriginal Affairs Victoria site register which shows that there are currently 29 registered sites within 2 kilometres of the subject land. Table 1 below lists the sites that are located within the subject site or within 50 metres of the subject site and the Plenty Gorge Park to the south.

Table 1 Registered Aboriginal archaeological sites marked with an asterisk are located within the Plenty Gorge Park to the south of the APDP boundary. Sites not marked with asterisk are located within 50 metres of the survey area (refer to Figure 18).

AAV Site Number	Site Name	Site Type
7922-0160*	Ashley Park 1	Artefact Scatter
7922-0161	Ashley Park 2	Scarred Tree
7922-0162*	Ashley Park 3	Artefact Scatter
7922-0163*	Ashley Park 4	Artefact Scatter
7922-0164*	Ashley Park 5	Scarred Tree
7922-0165*	Ashley Park 6	Artefact Scatter
7922-0166	Ashley Park 7	Artefact Scatter
7922-0179*	Yarrambat Park 7	Artefact Scatter
7922-0618*	Clements ST 2	Scarred Tree

Source: TerraCulture, 2007:18

The assessment identified three new Aboriginal archaeological sites, one located within the APDP area and two within the Plenty Gorge Parklands. Table 2 below lists the three new Aboriginal archaeological sites. These sites are also shown in Figure 18. The southern sections of the APDP area within 200 metres of the Plenty River and the major tributary that traverses the land and any area 50 metres of a registered site are considered archeologically sensitive.

Table 2 New Aboriginal Archaeological sites identified during the site survey.

Site Number/Name	GPS Co-ordinates
TBA	334598/ 58 34396
TBA	334532/ 58 34541
TBA	334309/ 58 34856

In light of the findings, Terraculture makes a number of recommendations pertaining to the future management of these sites, which include:-

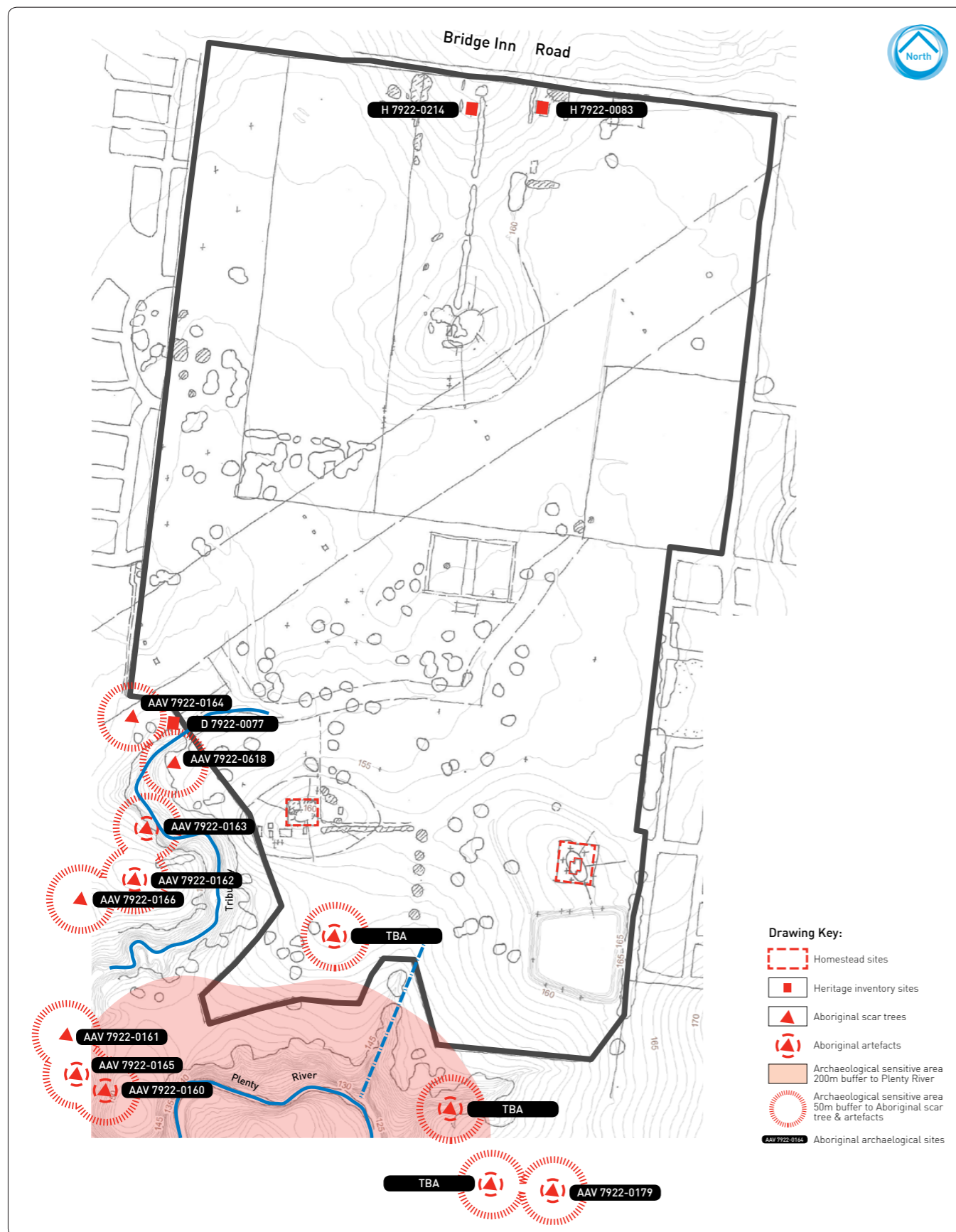
1. avoid registered archaeological sites within the APDP area;
2. retain Aboriginal scarred trees and develop procedures for ongoing management of this site; and
3. if the sites are to be disturbed subsurface testing would be required due to the sensitivity of the landform.

It is noted that the provisions of the Aboriginal Heritage Act 2006 now apply to the APDP area. The Aboriginal Heritage Act 2006 introduces a requirement for a proponent (or sponsor) to prepare a Cultural Heritage Management Plan (CHMP) if all or part of the activity is a listed high impact activity and all or part of the activity area is an area of cultural heritage sensitivity, which has not been subject to significant ground disturbance.

Areas of cultural heritage sensitivity, high impact activities and significant ground disturbance, are specified in the Aboriginal Heritage Regulations 2007 (the Regulations). Residential subdivision of areas of cultural heritage sensitivity is included as a trigger for preparation of a CHMP, unless it can be demonstrated that an exemption applies.

All applications within the APDP must be consistent with the requirements of a CHMP if required under the Aboriginal Heritage Act 2006. The Responsible Authority is not able to make a decision on a planning permit application that requires a CHMP, until such a plan has been approved and lodged pursuant to the Aboriginal Heritage Act 2006. To this end, any approved design layout forming part of this APDP may be subject to change depending on the outcome of the CHMP.

Figure 18 Site Analysis - Heritage Sites



### European History

Currently there are no sites within the APDP area identified within the planning scheme (heritage overlay), Heritage Victoria Register, Register of the National Estate or the National Trust. Previous studies have however identified three sites within the study area which are contained in Heritage Victoria's Heritage Inventory. Figure 18 identifies the location of these sites and Table 3 below provides a brief description of each site.

Table 3 Sites registered with Heritage Victoria

Heritage Victoria Site Number	Site Name	Description and Location	Site Type
D7922-0077	Ashley Park 1	Bluestone Quarry	Industrial
H7922-0083	Boundary Riders Cottage	Stockman's Hut	Cottage
H7922-0214	Original Kemp's Homestead Complex Location	Location of the former 1880s to 1890s homestead, includes brick dairy, well, tank, cobbled areas	Domestic

Source: TerraCulture, 2007:18

Whilst the quarry has been 'delisted' from the Heritage Inventory, the Boundary Rider's Cottage and original Kemp's Homestead have been identified as having archaeological potential. TerraCulture assert that "nature of the occupational history in the area the study area can be considered as sensitive for remains associated with pastoral activity (stockman's hut and homestead) and extractive industry (bluestone quarry)" (TerraCulture, 2007:21).

It is important to note that a heritage review of properties/places in the municipality was prepared by Meredith Gould in 1991. The Boundary Rider's Cottage was "D" listed in this review. "D" listed sites are generally reasonably intact and represent a particular period or style (Gould, 1991). The Boundary Rider's Cottage will be subject to a further heritage review to be conducted in 2008/09 as part of a broader amendment process investigating, the potential application of heritage overlay controls over locally significant heritage places across the City of Whittlesea.

As identified in TerraCulture (2007) the first preference in terms of management for the above sites is that they not be disturbed. However, should the sites listed with Heritage Victoria not be able to be retained within the future development, consent from Heritage Victoria would be required to remove/disturb the sites. If consent is sought and granted it would be accompanied by a set of conditions from Heritage Victoria that may include additional investigation, subsurface excavation or archival recording.

Although an archaeological survey of the subject land has been completed, more detailed site specific assessments should be undertaken to determine the level of significance and the particular requirements of the heritage places in the context of the surrounding development. Homesteads located in the south-western and south-eastern portions of the site are not included within the Heritage Inventory or Heritage Overlay and have not been assessed for heritage significance. In addition to the Heritage Inventory places, the heritage assessment must address these additional homesteads at the subdivision permit stage

To this end, any approved design layout forming part of this APDP may be subject to change depending on the outcome of any subsequent investigations.

### 3.6 Movement Network

#### Abutting, Existing and Proposed Road Network

Access to the APDP area is provided via a network of existing and proposed arterial, collector and local roads as depicted in Figure 19 below.

Bridge Inn Road forms the northern boundary of the Development Plan area and runs in an east west direction linking Epping Road (Wollert) to Yan Yean Road (Doreen). This road is identified as an arterial in the MSP. Land will be required from the APDP for widening of Bridge Inn Road to provide for its ultimate duplication in the future. Importantly, Bridge Inn Road forms the main link between the APDP area and the Mernda Town Centre, which will ultimately accommodate a rail station and a mix of retail, commercial and community facilities.

A range of sub-arterial, collector and local roads will connect to the APDP area which will need to be taken into account in the design of the internal road network. Many of the adjacent links have yet to be provided but are part of approved Development Plans. The APDP is effectively the last piece of the puzzle within Precinct 2B of the MSP and its development will ensure completion of the road network within the broader Precinct 2B.

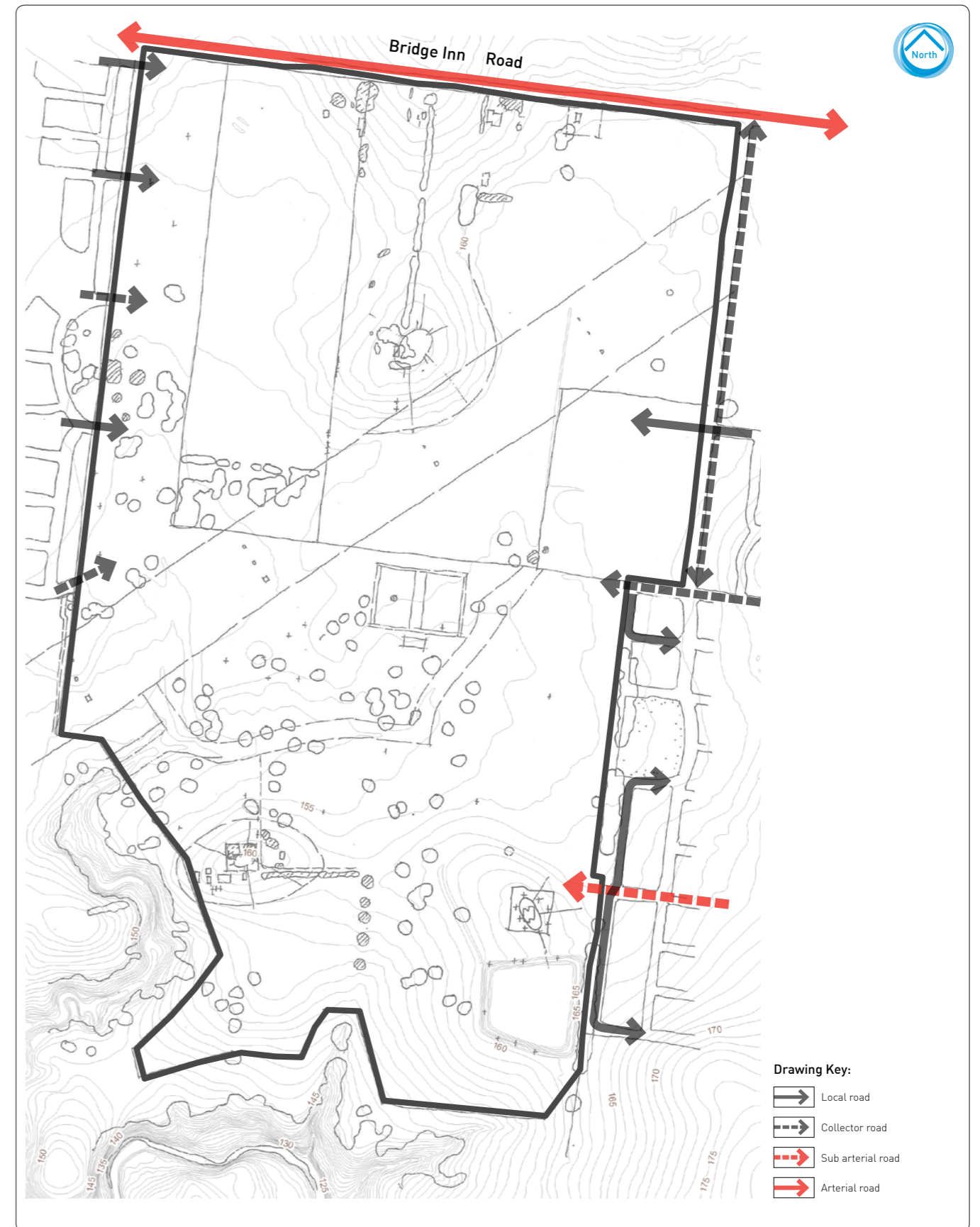
#### Public Transport

The area is currently serviced by two bus routes – 520 and 562. Bus route 520 currently operates along Yan Yean Road and passes through Greensborough, Yarrambat, Doreen and Yan Yean. Bus route 562 operates along Plenty Road and passes through Greensborough, Bundoora, Mernda, Whittlesea and Humevale. These services link the various communities to other modes of public transport including rail at Greensborough station and various tram services. As the local road network within Precinct 2B is developed, it is likely that buses will seek to utilise internal roads as part of their future routes. The road network needs to take into account this potential and ensure that public transport can be accommodated. It is noted that cross-sections provided for sub-arterial and collector roads within Precinct 2B are able to accommodate bus route requirements. As such the aim of the APDP is to provide the flexibility within the road network to maximise opportunity for bus routes to service the site and broader precinct.

#### Bicycle and Shared Path Network

Whilst there are currently no existing bicycle/ shared paths on the site, there will be a major opportunity to provide this infrastructure as development occurs. Shared paths will be provided as part of road cross-sections, open space, linear links, the transmission easement and linking with the Plenty Gorge Park path network.

Figure 19 Site Analysis - Surrounding Road Network



### 3.7 Services

#### Water Supply & Sewerage

Yarra Valley Water is the water and sewerage authority in the MSP area. Water is available via mains located along Bridge Inn Road and Yan Yean Road. Sewerage services are also available to the APDP. Yarra Valley Water has recently constructed a flow control facility plant on the western boundary of APDP, south of the transmission easement. A sewer easement enters the APDP from the north-east. Its alignment runs within the transmission easement and along the main north-south drainage line. There is no known impediment to provision of water supply to the APDP area.

A sewer easement enters the APDP from the north-east. Its alignment runs within the transmission easement and along the main north-south drainage line. There is no known impediment to provision of water supply to the APDP area.

#### Drainage

There is one major natural drainage line that traverses the site and is fed into by several other low points (Figure 20).

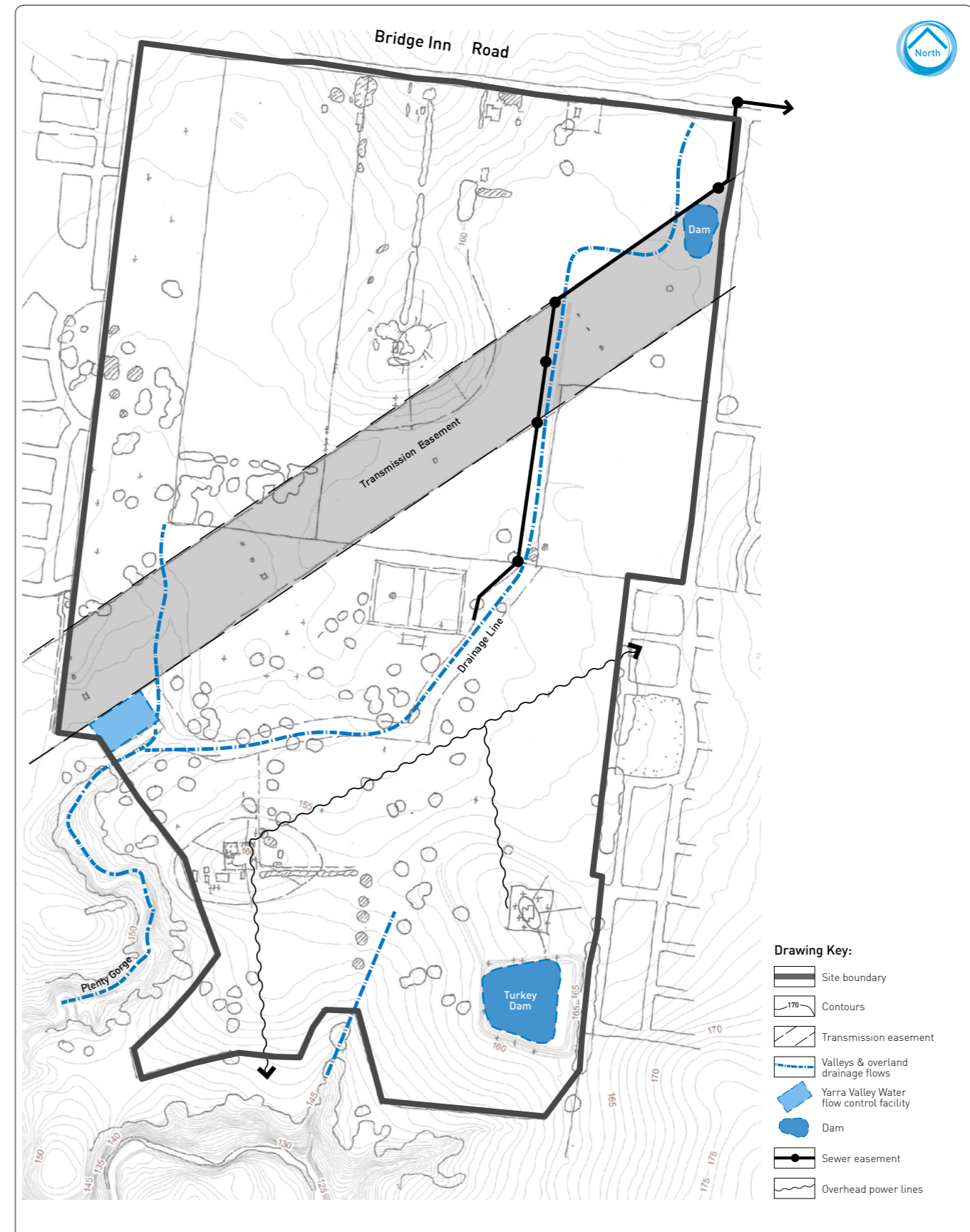
#### Other Services

High voltage powerlines extend south-west to north-east through the middle of the subject land. SP Ausnet are currently undertaking modifications to the high voltage lines to accommodate additional lower voltage supply lines that will feed directly into the local network. In addition, local over head power lines are currently present on the site to cater for the existing homesteads.

Envestra Limited is the local gas provider that is responsible for the supply of gas to the APDP area. Gas supply is currently available along Plenty Road and Yan Yean Road and it is understood that connection to these lines can be made as development proceeds.

With regard to telecommunications, the responsible authority is Telstra and cables are located along Bridge Inn Road. In accordance with the City of Whittlesea's Telecommunications Conduit Policy (Clause 22.13), telecommunications conduits for the purpose of accommodating optic fibre will be provided within the estate at the subdivision stage.

Figure 20 Site Analysis - Services and Drainage



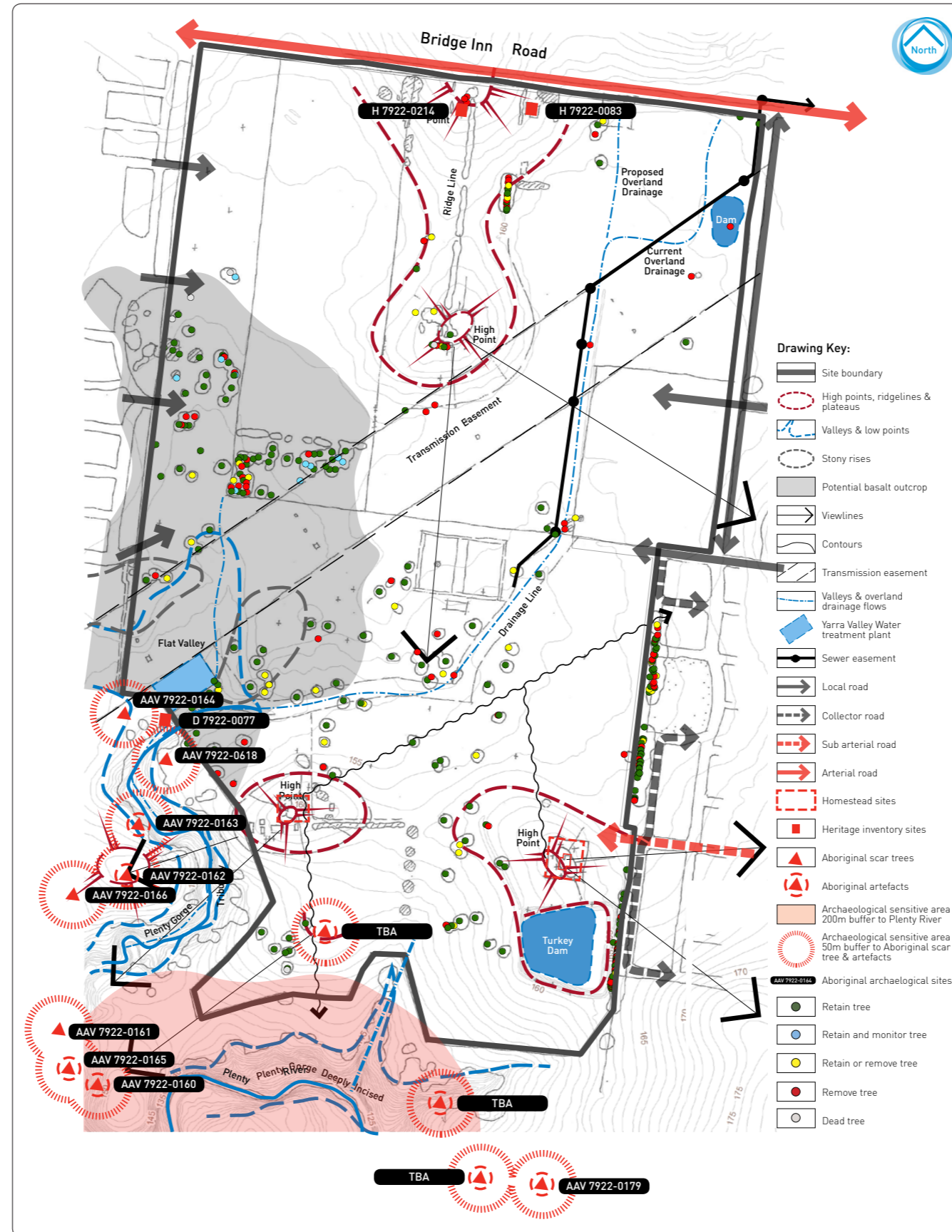


### 3.8 Overall Site Analysis Plan

Figure 21 brings together the key site analysis elements of the preceding discussion.

The following Chapter addresses a number of key influences arising from the Site Analysis and proposes a design response which will form the basis of the APDP layout.

Figure 21 Overall Site Analysis Plan



# Part 4 Design Response



*City of Whittlesea*

# 4.0 Design Response

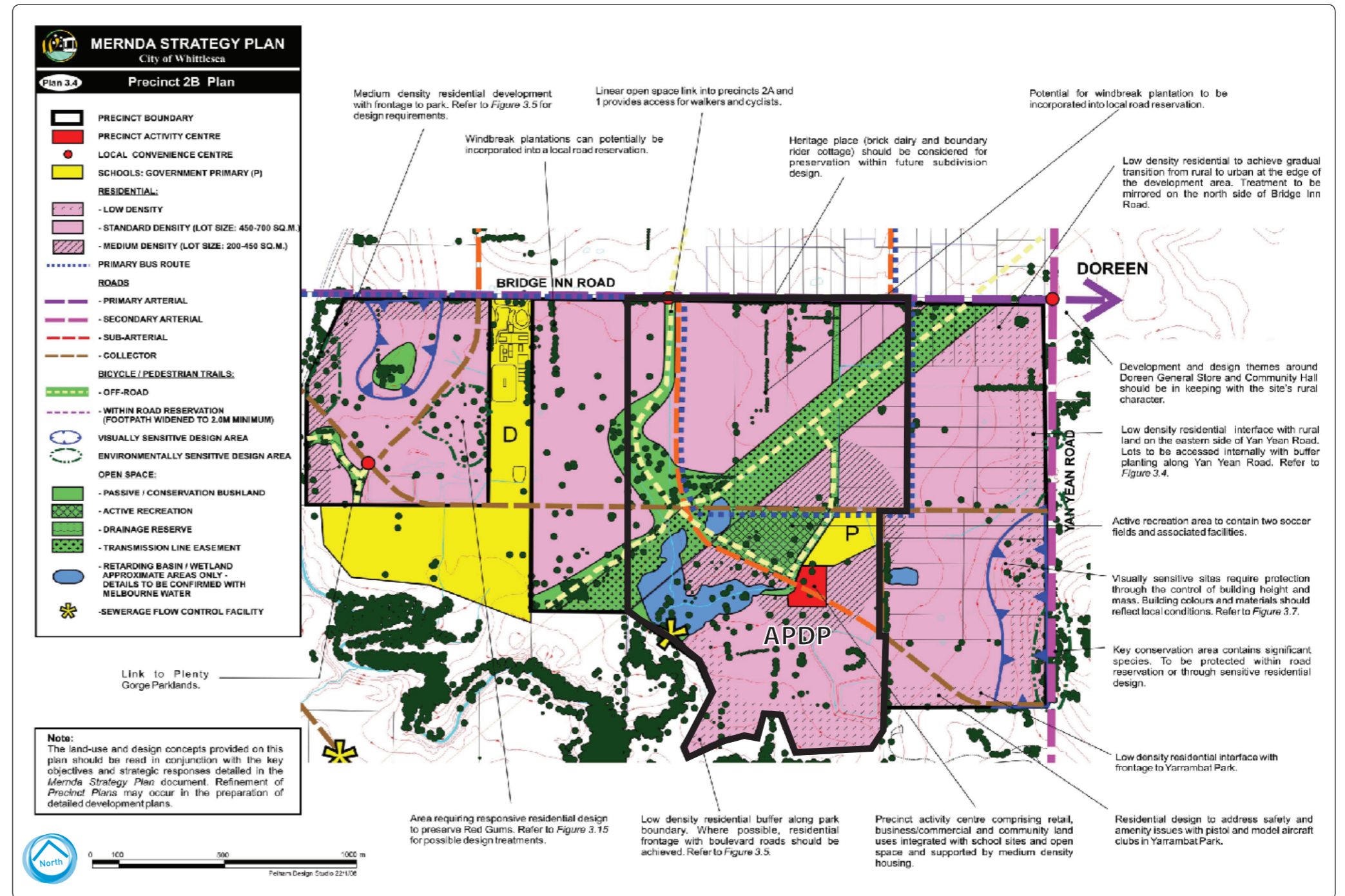
This Chapter provides a series of detailed plans which respond to the site analysis in Section 3, having regard to the MSP and, in particular, the Precinct 2B Plan. Collectively, these plans, with accompanying notes as required, form the design response for the APDP.

## 4.1 Precinct 2B Plan – Mernda Strategy Plan

The key objectives identified in the MSP Precinct 2B Plan (Figure 22), which will inform the Design Response, are as follows:-

- north-south linear open space link connecting to the transmission easement and active open space/town centre area;
- consideration of the preservation of the brick dairy and boundary rider cottage within the plan;
- potential incorporation of local windbreak planting within the design;
- accommodation of two soccer fields and associated facilities within the active open space area;
- provision of a precinct activity centre comprising retail, business/commercial and community land uses integrated with the school and open space and supported by medium density housing;
- low density residential buffer along Parks Victoria boundary, with boulevard road treatments;
- provision of a local convenience centre in proximity to Bridge Inn Road, the sub-arterial road link and open space link;
- provision of off-road shared bicycle/pedestrian paths along the north-south open space links and transmission easements linking with the shared paths required as part of the road network;
- provision of a sub-arterial road connection from Bridge Inn Road through the activity centre precinct and linking with the adjoining collector road network;
- preservation of remnant, significant, indigenous vegetation;
- provision of passive/conservation bushland open space;
- land for the future duplication of Bridge Inn Road;
- land for the provision of a Government Primary School; and

Figure 22 Design Response - MSP Precinct 2B Plan



- maximising medium density development within and around the activity centre, school and active open space area.

It must be stressed that the above land use and design concepts provided within the Precinct 2B Plan must be read in conjunction with the key objectives and strategic direction detailed in the MSP. These key objectives and strategic directions are discussed under the following headings within the MSP:-

- Planning and Design;
- The Transportation System;
- Environmental Conservation;
- Activity Centres;
- Social Infrastructure and Community Development;
- Housing;
- The Open Space Network;
- Heritage and Culture; and
- Servicing and Drainage.

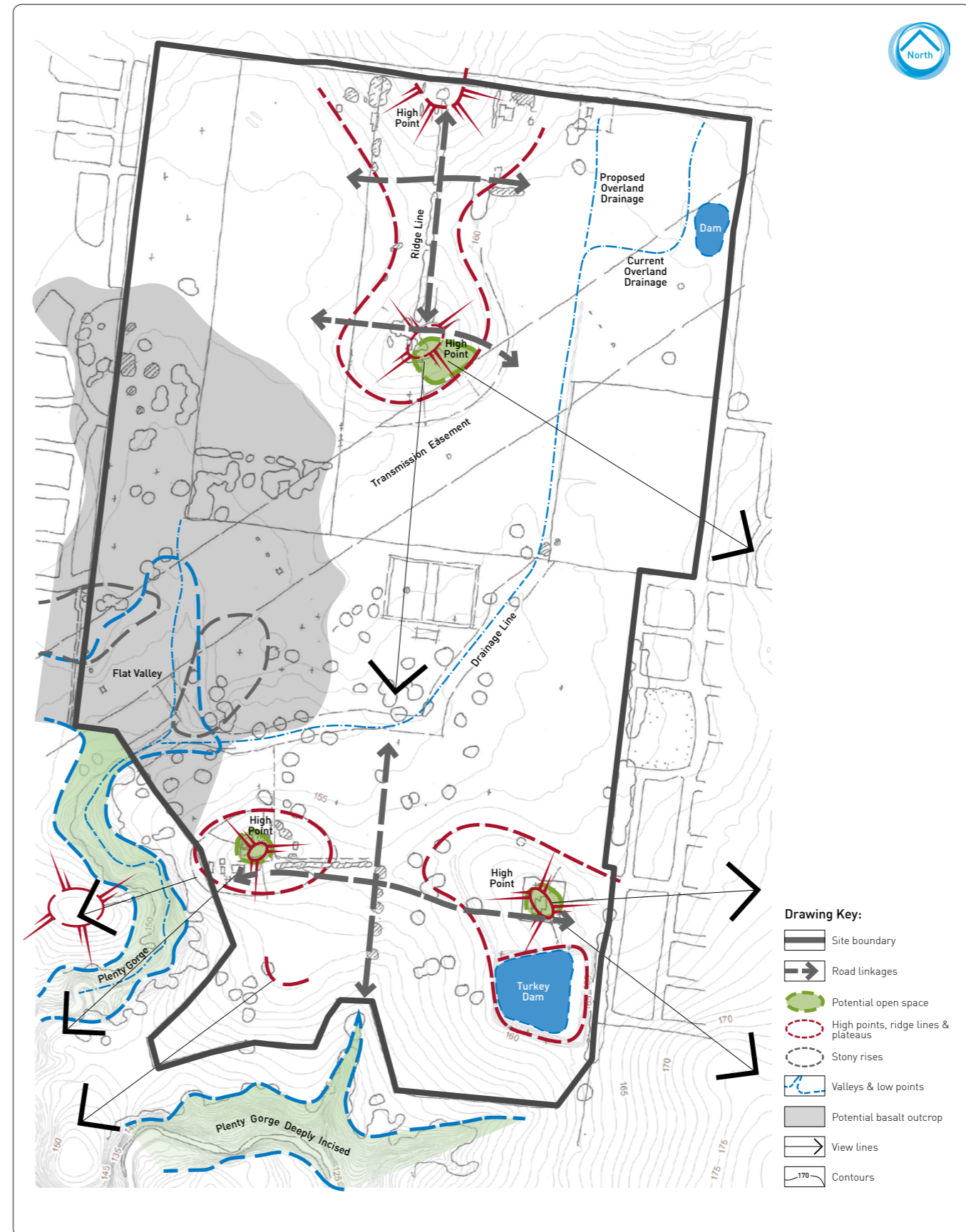
It is not proposed to detail all the key objectives and strategic directions within this Development Plan but rather note that all these elements need to be taken into account within the design response.

## 4.2 Topography

Figure 23 illustrates the key design response issues identified from the Site Analysis that will inform the Development Plan:-

- three high points have been identified;
- the northern high point has high potential for passive open space given it has a relatively flatter peak. The abutting transmission easement allows for long range views to the south and south-east to be maximised;
- opportunity for northern high points to be connected north-south to provide terminating vistas. Break in the ridgeline provides potential for east-west roads to enhance the ridge;
- southern high points not considered significant enough to warrant open space designation, however opportunity exists to connect the high points with an east-west road which will form the road framework in the southern portion of the DP area and maximise short and long range views to the east and west;
- opportunity exists to provide a north-south link in the southern section of the DP area, linking the drainage line to the Plenty Gorge Park, noting that the topography rises from the drainage line to a minor peak along the east-west ridge before it falls towards the Plenty Gorge Park; and
- the existing 'turkey dam' is man made and not considered significant to retain with the design.

Figure 23 Design Response - Topography



### 4.3 Existing Vegetation and Environmental Significance

Figure 24 illustrates the broad areas of environmental significance as identified in the MSP.

Figure 25 overlays the information from Figure 24 with the site analysis information relating to significant flora. The plan identifies areas containing copses of vegetation, as well as highlighting the significant environmental areas within them. These core tree copse areas should be the priority for retention within the plan either as part of the open space network or as areas of environmental significance to be protected, highlighting their value as a group of significant trees.

Figure 25 also incorporates the trees recommended for removal. The potential to retain these trees should be investigated at the detailed design stage. To this end the three step approach to native vegetation as specified in the Native Vegetation Framework will need to be demonstrated i.e. avoid, minimise and offset.

Figure 24 Design Response - MSP Areas of Environmental Significance

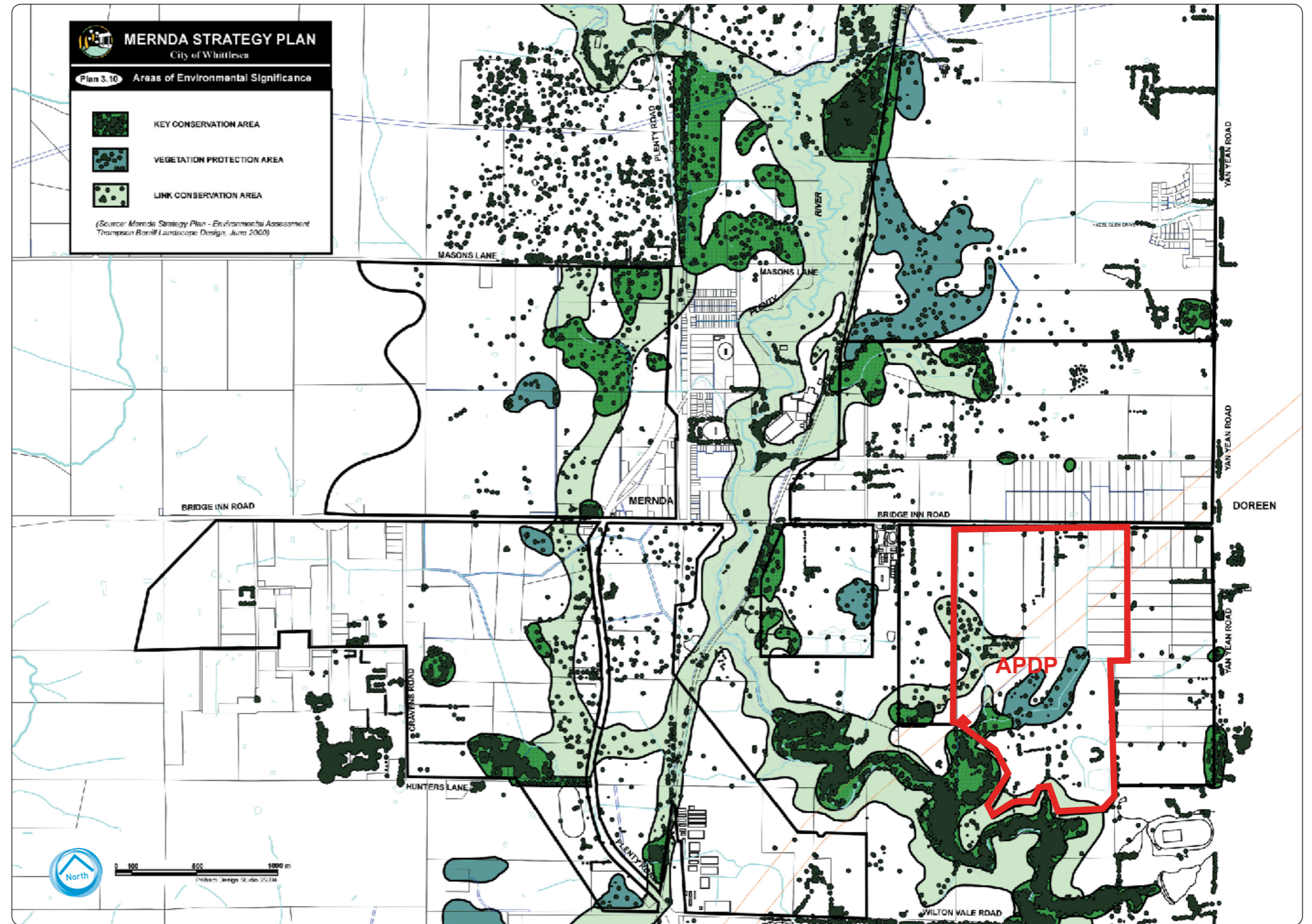
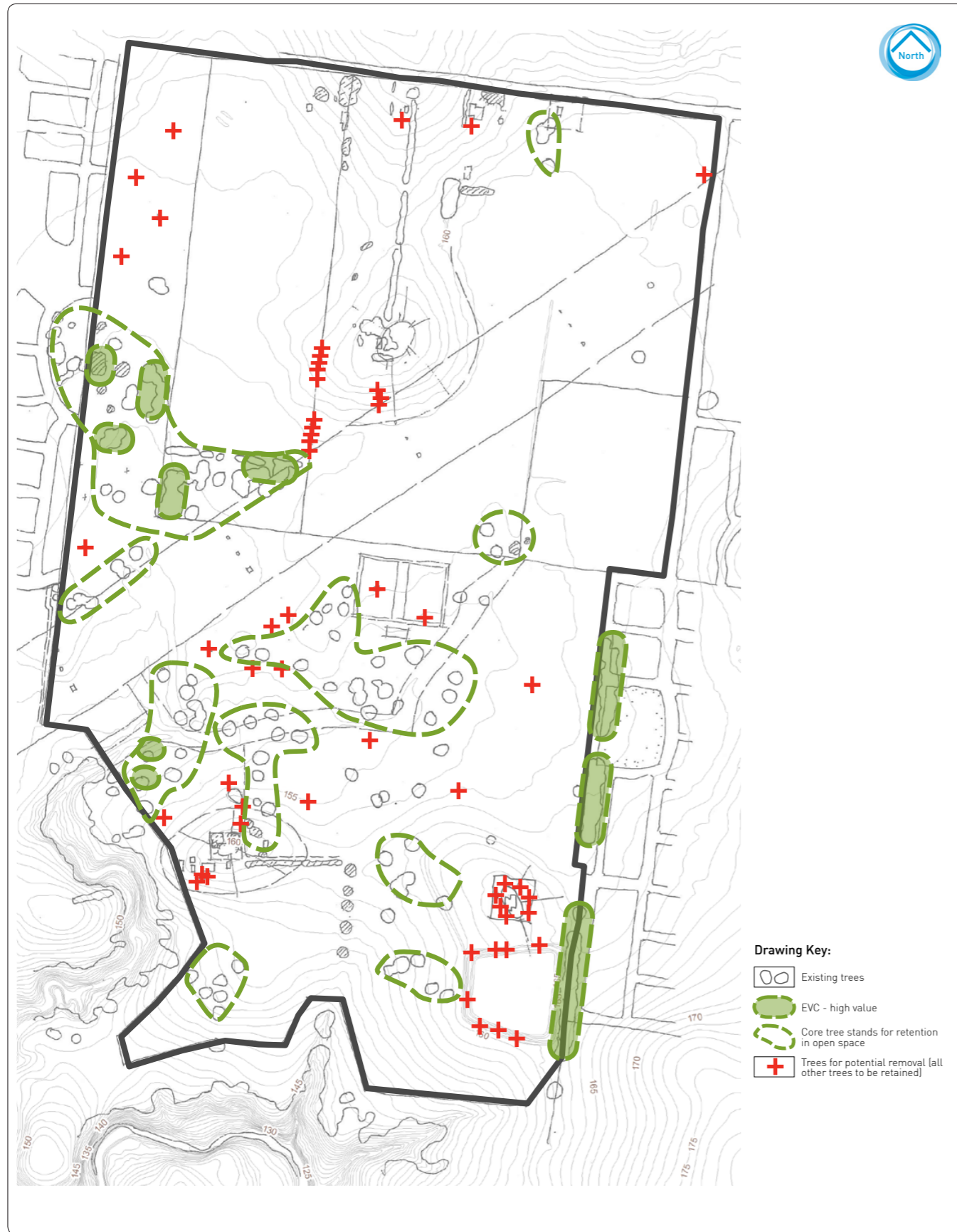


Figure 25 Design Response - Existing Vegetation and Environmental Significance



## 4.4 Open Space Network

Figure 26 illustrates the proposed open space network as identified in the MSP. The open space is essentially split into two types – active and passive. The active open space has been set aside to accommodate two soccer pitches and associated infrastructure. The passive open space incorporates areas of significant vegetation as well as performing a linking function through, and external to, the APDP area. The transmission easement and drainage reserve offer opportunities to link the open space areas and APDP to the wider precinct and the Plenty Gorge Park. The open space network provides for a green heart within the APDP area and broader precinct associated with the precinct activity centre. Importantly, it promotes a substantial open space linkage network across all the precincts of the MSP area which utilises passive open space as well as capitalising on encumbered areas such as transmission easements and drainage lines.

Figure 26 Design Response - MSP Open Space Network



The MSP identifies the higher order open space framework. There is opportunity to refine this framework at the Development Plan stage to respond to the subtleties of the site with the benefit of more detailed analysis. However any departure from the MSP open space network needs to be in the context of maintaining the principles of the MSP open space framework.

It is important to note that the MSP open space network has been used as the basis for preparation of the open space component of the MSPDCP. More specifically the open space areas identified in the MSP have been used to determine the final open space percentages for each precinct forming part of the open space equalisation scheme for each specific precinct as part of the MSPDCP. Therefore there is no opportunity to seek a decrease in the quantum of open space identified in the MSP. Alternatively, where additional open space is required/provided due to local design issues e.g. preservation of vegetation, preservation of hilltops as open space etc, then these are not able to be credited in addition to the identified MSP open space for the specific precinct.

Figure 27 further refines the MSP open space requirements (Figure 26) taking into account topographic features and significant vegetation. This plan reinforces the importance of preservation of areas of significant vegetation as part of the open space network. Additional areas have been identified in the southern portion of the APDP area in this regard. Some of that increase in the southern areas can be attributed to the removal of the Melbourne Water Retarding Basin and its relocation within the Transmission Easement. Whilst this specific area is no longer required for Melbourne Water purposes, it does contain a significant amount of remnant vegetation which is proposed for retention.

Figure 27 also highlights the significance of open space linkages particularly the north-south link in the north-eastern section of the APDP, area which performs an important regional linkage function within the MSP.

Additionally, the plan identifies the opportunity and importance of linking the open space areas throughout the APDP area including through the local road networks. Whilst the plan identifies the opportunity to retain the southern highpoints in open space, the open space proposed for protection of existing vegetation in the southern portion of the APDP is considered of higher priority.

Figure 27 Design Response - Open Space Network





## 4.5 Heritage

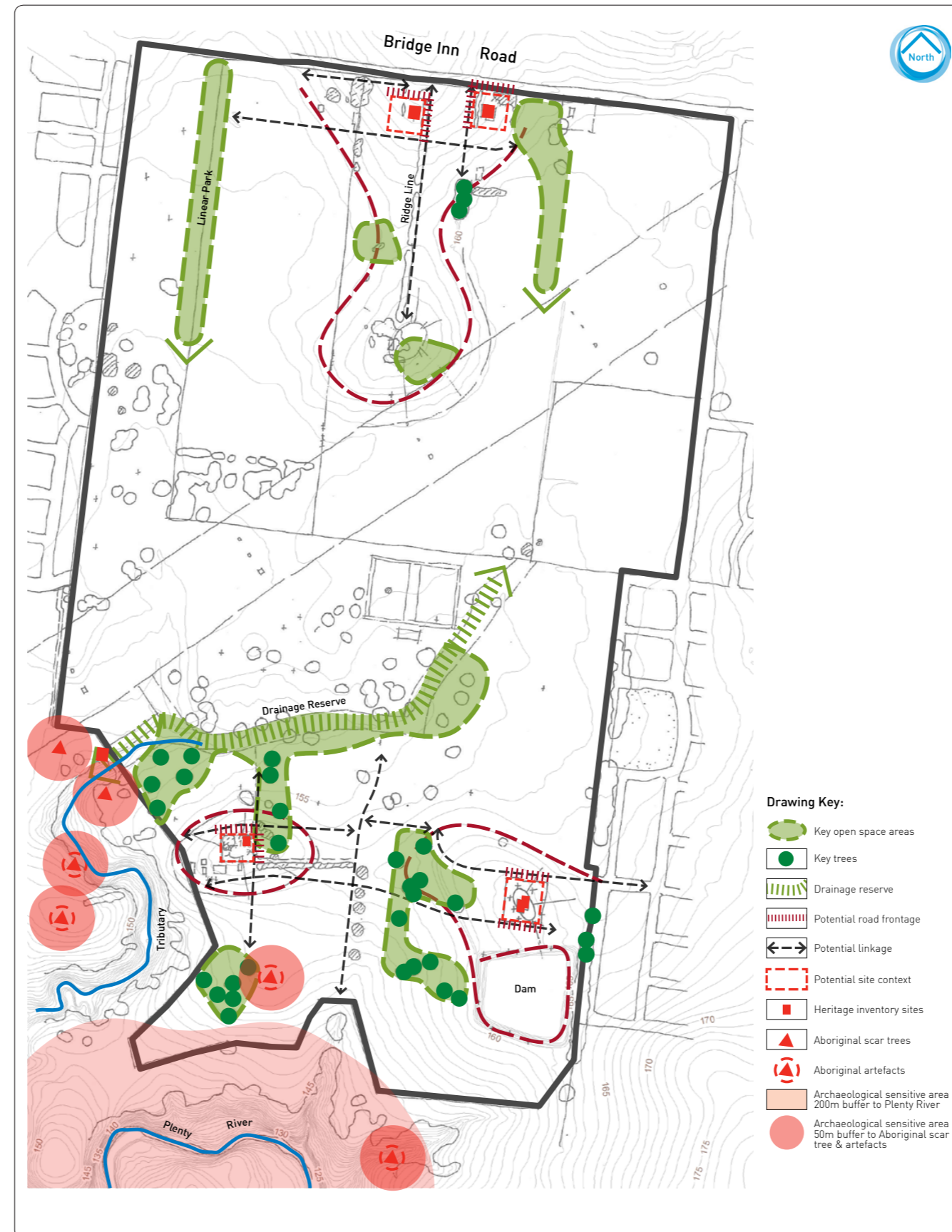
Figure 28 illustrates proposed incorporation of heritage sites within the APDP area.

The majority of heritage elements contained within the site relate to European heritage elements e.g. homesteads, homestead sites, buildings etc. The sites have been integrated within the local road network with appropriate frontage to ensure they can be retained as required.

The design has taken into account the potential for these sites to be seamlessly developed for residential allotments should it be determined that any of these sites do not warrant retention in the future.

As recommended in the TerraCulture Archaeological Survey (2007), Aboriginal archaeological sites within the APDP area should be situated in open space reserves where possible. One Aboriginal archaeological site was identified within APDP area. Subject to further assessment of this site i.e. whether it can be removed or must be retained in situ, the design layout may require revision.

Figure 28 Design Response - Heritage Elements



## 4.6 Movement Network

The movement network comprises a series of layers including the sub-arterial, collector, key local and local road network along with bicycle and shared paths. Accordingly, a series of plans have been prepared which respond to each of these layers. Each layer has regard to the MSP - Precinct 2B Plan (refer to Figure 22) and illustrates the modifications that have occurred to better reflect the local site conditions.

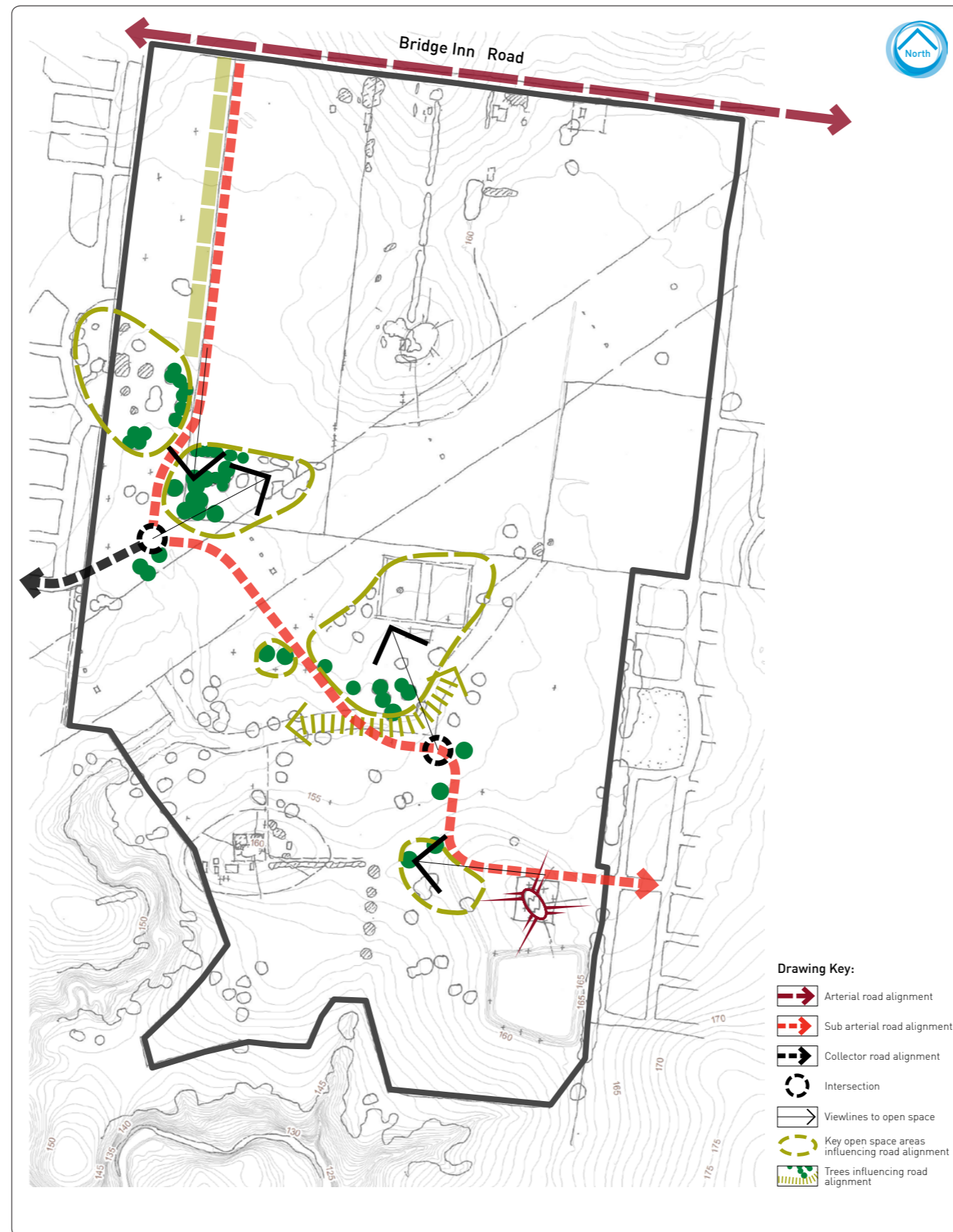
### Sub-Arterial Road Network

Figure 29 illustrates how the alignment depicted in the MSP has been adjusted as part of the design response to: -

- respond to the significant conservation values of the site, having the minimum impact on trees and creating two large consolidated areas of conservation open space;
- link the Development Plan and surrounding area to the active open space, Neighbourhood Activity Centre and school;
- cross the transmission easement as close to the pylons as possible and at a 90° angle, to avoid the implications associated with clearance from the lines;
- form the southern boundary of the active open space; and
- create points of interest (e.g. viewlines) at key locations along the route.

The proposed sub-arterial alignment maintains the intent of the MSP whilst better responding to the local site conditions.

Figure 29 Design Response - Sub Arterial Road Network

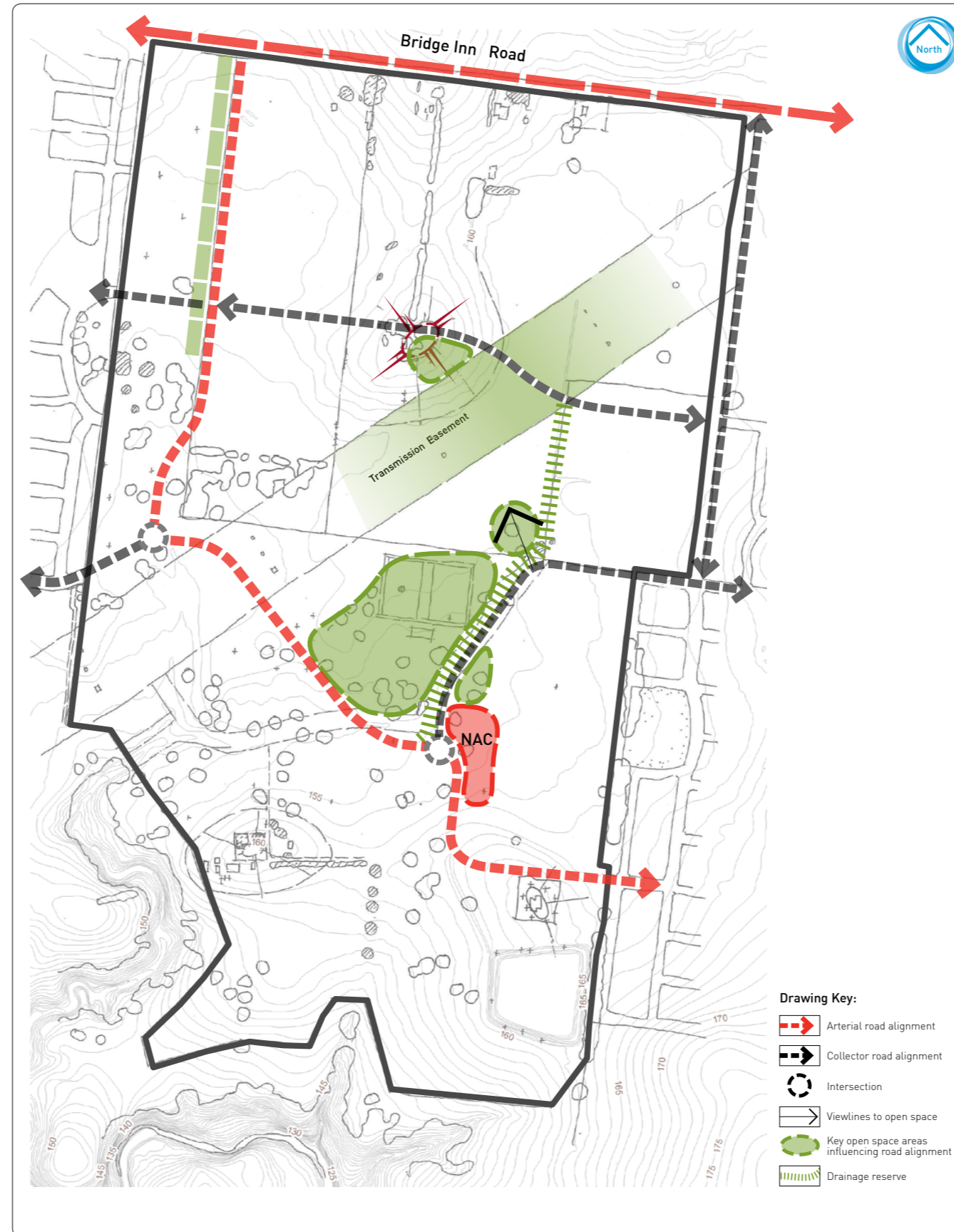


**Collector Road Network**

The collector road identified in the MSP has been spilt into two with one north of the transmission easement and one to the south wrapping around the active open space (Figure 30). In essence, the purpose of the collector roads is to: -

- provide an east-west connection linking development to the east into the local active open space and Neighbourhood Activity Centre, thus focusing traffic into this key activity area;
- provide an east-west link within the northern section of the site which connects the APDP area with the developments to the east and west and creates a secondary crossing point of the transmission easement. The northern alignment has regard to the ridge line and high point; and
- provide for a permeable, legible, higher order road network accounting for local conditions/features, combined with the sub-arterial road network.

Figure 30 Design Response - Collector Road Network



### Key Local Roads

Whilst the MSP Precinct 2B Plan does not specifically discuss key local roads, the design response for the movement network identified that a number of local roads complete the structure for the local road network set up with the sub-arterial/collector road network discussed above. These key local roads are considered an important element underpinning the final APDP road network discussed in the following chapter. They are not intended to impose any additional cross sectional requirements, but are highlighted due to their structural importance below the collector road network. Figure 31 provides detail in relation to those key local roads. A rationale for the significance of each discussed below under the corresponding letter as identified on the plan for ease of reference.

#### A

- Links the APDP to the west to the adjacent development.

#### B

- Creates a central east-west connection from the sub-arterial road to the drainage line between Bridge Inn Road and the collector to the south.
- Creates points of interest as the road is staggered to have regard to a row of trees incorporated within a median treatment and crossing the drainage line.

#### C

- Provides a local loop road that connects Bridge Inn Road to the sub-arterial road.
- Creates points of interest having regard to the local park, ridgelines and conservation areas.

#### D

- Provides a north-south link along the drainage line connecting the two east-west collector roads.

#### E

- These roads form the two access points to the school and provide for traffic to circulate past the school for drop-off and pick-up, and improve circulation designed to reduce the extent of congestion around the school.

#### F

- Provides a central link through the centre of the two ridges.
- Has regard to the existing trees.
- Provides a direct link to the active open space and Neighbourhood Activity Centre (NAC) to the Plenty Gorge Parkland.

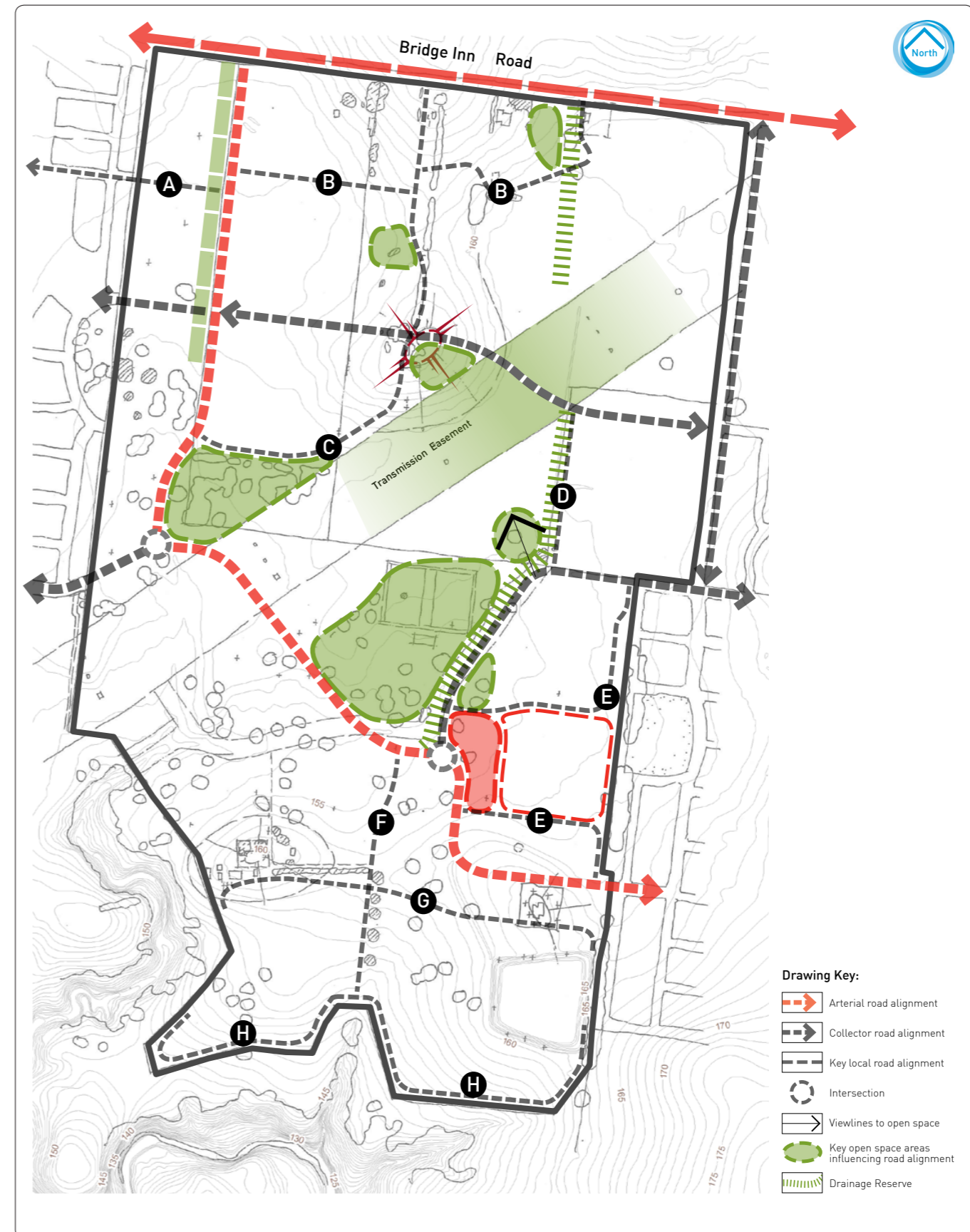
#### G

- Provides an east-west connection linking the southern neighbourhood from the Plenty Gorge Parkland to adjacent development to the east.
- Forms the southern edge to the ridgelines.

#### H

- Creates a boulevard edge road along the Plenty Gorge Parklands to enable residential dwellings to face onto the parklands.

Figure 31 Design Response - Key Local Roads



**Local Roads**

Figure 32 completes the road network for the APDP with the incorporation of local roads. Figure 32 describes the design rationale for the local road network as it relates to, and influences, the local neighbourhood structure. The comments below are provided under the corresponding letter on the plan.

**A**

- Retention of the homestead has influenced the layout.
- Creation of a north-south link between the northern and southern open space conservation areas.
- Creation of an east-west link between the Plenty Gorge Park and the primary north-south local link.
- Creation of a boulevard link along the Plenty Gorge Park.
- Provision of an edge road to the Plenty Gorge Park.

**B**

- Creation of a north-south link between the Plenty Gorge Park and the sub-arterial road.
- Creation of a series of east-west links.
- Provision of edge roads to the Plenty Gorge Park and windrow.

**C**

- Provision of east-west links.
- Linking active open space with schools and the Neighbourhood Activity Centre.
- Permeability around the school maximised with provision of two east-west edge roads.
- Provision of edge roads to windrow.

**D**

- Provision of linkages to the collector road network.
- Establishment of a grid to create permeability.
- Provision of an edge road along the transmission easement and drainage line.

**E**

- Provision of an edge road to the active open space, transmission easement and conservation area.

**F**

- Provision of a local edge road to the linear park to ensure a traditional frontage to the open space.
- Additional north-south link connecting the service road to the major conservation area to the south.
- Provision of east-west roads to maintain permeability.
- Provision of a service road to Bridge Inn Road.

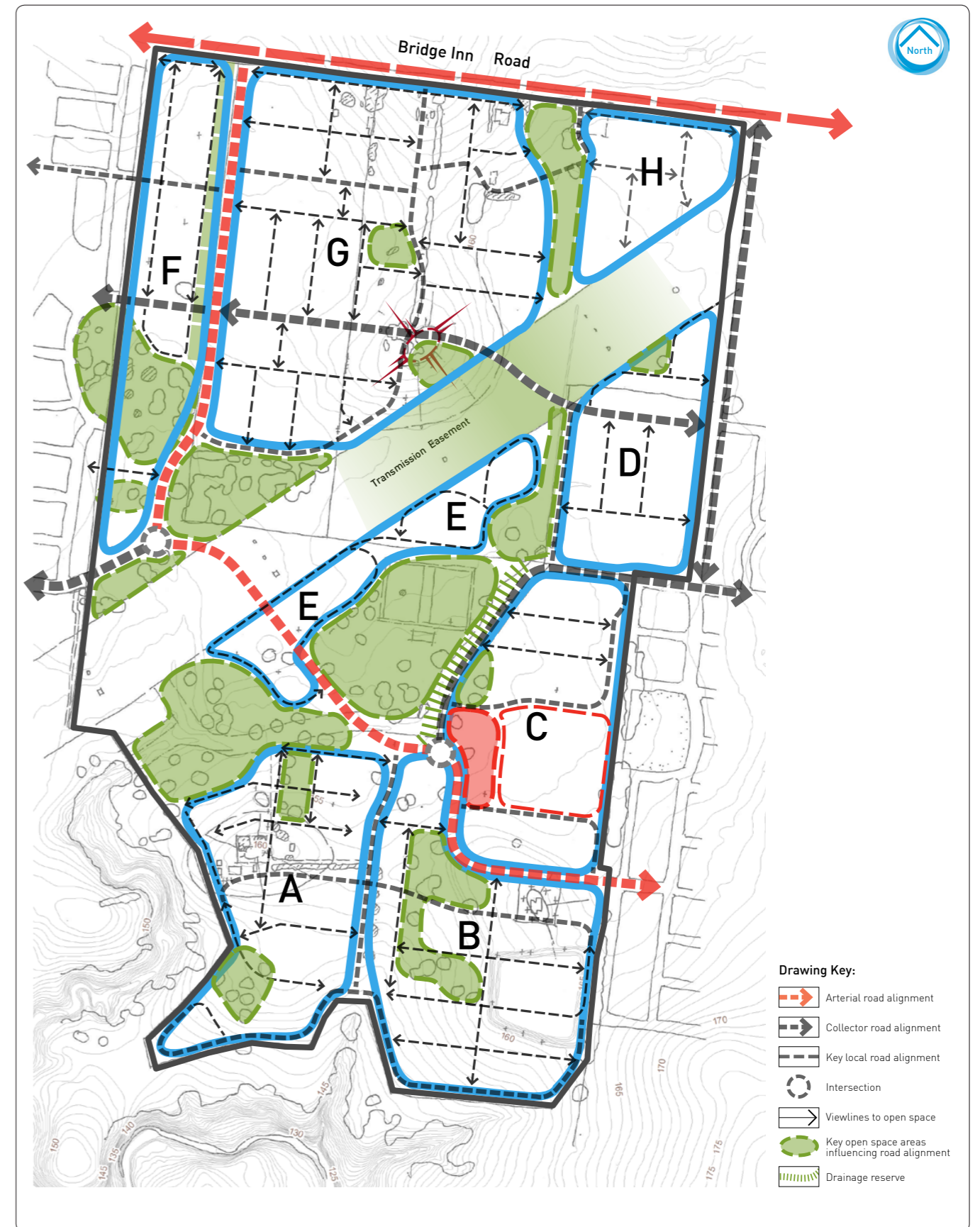
**G**

- Maximising permeability to key local roads and the collector road whilst responding to the open space and ridge line.
- Provision of an east-west link to the drainage line.
- Provision of an edge road to the drainage line.
- Provision of an edge road to the transmission easement.
- Staggering of the grid to avoid four way intersections.
- Provision of a service road to Bridge Inn Road.
- Provision of connections to internal and adjacent open space.

**H**

- Provision of a connection to the drainage line and north-south link to Bridge Inn Road.
- Provision of an edge road to the drainage line and transmission easement.
- Provision of a service road to Bridge Inn Road.

Figure 32 Design Response - Local Roads



### Bicycle and Shared Path Network

Figure 33 illustrates the bicycle/shared path network within the APDP area.

The bicycle/shared path provision can be summarised broadly into three categories: the regional shared path, shared paths forming part of road reserve cross-sections and shared paths within open space.

The regional shared path is the primary route. This is funded via development contributions and is based on the alignment established by the MSP, but modified slightly to reflect specific site conditions. Essentially this is contained within the transmission easement and along the drainage reserve.

The paths associated with roads reserves are provided as part of the cross-sections for the arterial road (Bridge Inn Road), sub-arterial road and collector roads. These link to the path networks with the road reserves on abutting landholdings, ensuring consistency and continuation in the network.

The final type of shared path relates to those required within open space areas. These provide for access through the specific areas of open space but are also integrated within the broader shared path network.

The shared path network is focused on the neighbourhood activity node, active open space and also in ensuring connectivity of the surrounding neighbourhoods to this area. Strong connections are provided along the regional shared path to the Plenty Gorge Park, north to Bridge Inn Road, as part of the off-road linear link extending to the northern precincts of the MSP, and to the west to the future rail station and Mernda Town Centre.

Figure 33 Design Response - Shared Path Network



## 4.7 Neighbourhood Activity Centre

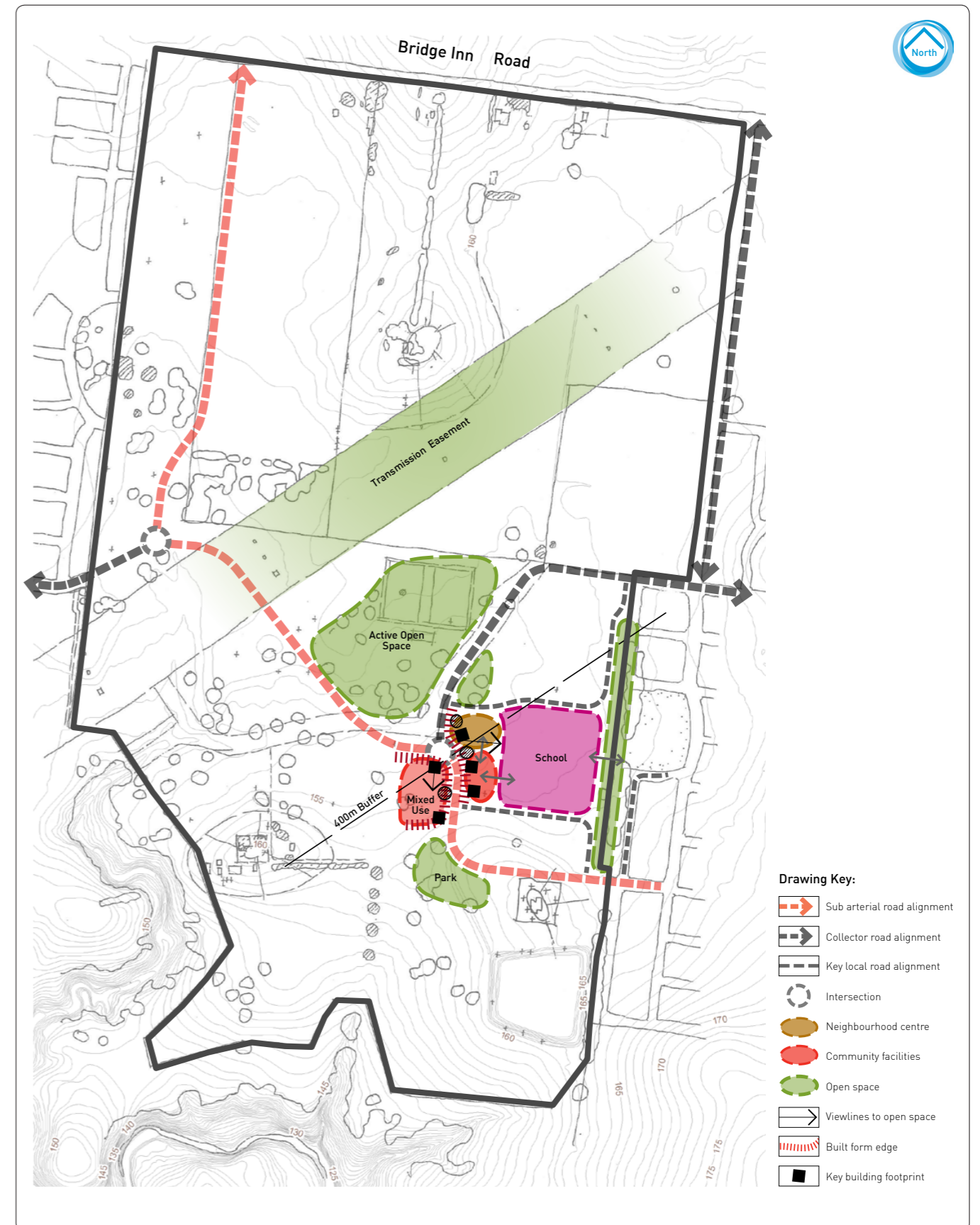
As depicted in the MSP Precinct 2B Plan in Figure 22, the neighbourhood activity centre (comprising retail, business/commercial opportunities and a community activity centre) is to be co-located with the primary school and active open space, and supported by medium density development.

The MSP allows for a local centre with up to approximately 3,000m<sup>2</sup> of retail floor space. In relation to the quantum of floorspace, a detailed assessment of retail floorspace potential for the proposed Ashley Park estate was undertaken by Macro Plan Australia in July 2007. This assessment identified that the activity centre within Ashley Park could only support a maximum of 1,700m<sup>2</sup> of retail floorspace with approximately 715m<sup>2</sup> sustainable in the medium term (by 2009-2011) and a potential stage 2, accommodating 1,500 m<sup>2</sup> sustainable in the long term (by 2021). It is important in this context to ensure that plans implemented in the short term are flexible enough to accommodate potential retail expansion in the medium to longer term.

Figure 34 seeks to maintain the design intent of the MSP and provides further detail regarding the location of these facilities. In essence the key features include: -

- relocating the primary school further to the south than originally identified in the MSP to locate it outside the 400 metre buffer from the transmission easement. This is in line with the Department of Education and Early Childhood Development (DEECD) current requirements/practice for location of schools in proximity to powerlines;
- locating the school, community activity centre, child care centre and local retail within the same block, in proximity to the active open space, mixed use precinct and linear open space;
- locating the school, community activity centre and child care centre with a common boundary to provide for flexibility to accommodate shared use/ co-location opportunities in the future;
- locating facilities along north/south leg of the sub-arterial road as the preferred alignment and providing opportunity for northern orientation of the mixed use area to maximise solar access to influence potential uses;
- locating all facilities, except the school, on the sub-arterial road to maximise capture of the movement economy;
- provision of two key access points to the school off the sub-arterial road;
- local roads providing two access points to the school;
- creating the conditions to facilitate a built form outcome on prominent sites as 'focal points' at key intersections; and
- utilising the River Red Gums as a setting, creating a sense of place.

Figure 34 Design Response - Neighbourhood Activity Centre



## 4.8 Density and Interfaces

The MSP Precinct Plan 2B clearly distinguishes the area within 400 metres of the Neighbourhood Activity Centre (NAC) as an area suitable for medium density (defined as lots between 200-450m<sup>2</sup> in the MSP), to support the activity centre, school and active open space. The MSP supports innovative medium density housing forms around activity centres, open space, remnant vegetation and unique landform which provide an appropriate opportunity, or context, for varied design treatments, thus adding diversity and interest to residential areas. In addition, the Precinct 2B Plan recommends that lower density residential (defined as lots > 700m<sup>2</sup> in the MSP) is provided along the sensitive environmental interface with the Plenty Gorge Park.

In response to this direction, and the detailed site analysis, a series of plans have been formulated which focus on increasing density within 400 metres of the activity centre, identifying other localised opportunities throughout the plan area where the potential exists to accommodate increased density and also define areas that are suited for low density.

Figure 35 focuses on the walkable catchment within 400 metres of the NAC and school precinct and identifies appropriate areas within the road structure which are suitable to accommodate medium density development. The location of the medium density in this locality was determined having regard to the: -

- 400 metre walkable catchment;
- East-west ridgeline;
- open space;
- drainage line;
- school; and
- APDP boundary.

Figure 36 examines local conditions that create the opportunity for medium density. These include areas abutting conservation areas, active and passive open space, drainage reserves, tree windrows and topography.

The MSP identifies the interface with the Plenty Gorge Park as appropriate for low density (> 700m<sup>2</sup> allotments). Accordingly, Figure 37 below has regard to the Plenty Gorge Parklands and identifies an area that is suitable as a transition from standard (and some medium) density into lower density adjacent to the parkland. As set out in the MSP boulevard roads are to be placed around the edge to enable residential frontage onto the Plenty Gorge Park and provide additional buffer and public access opportunities to this regional open space.

The south-western corner has been identified for medium density development (Figure 36) as an Integrated Housing Site (Integrated Housing will also be discussed following in Section 5.7). Whilst it is noted that the MSP identifies the Parks Victoria interface as low density, it is considered appropriate for this specific site to be considered as an integrated medium density site.

The site is somewhat isolated, forming a peninsula jutting into the Parks Victoria open space. It is framed to the north-east by a copse of Red Gums contained within open space. Effectively the site interfaces with open space on four sides which offers the opportunity for development to maximise views to the Plenty Gorge Park and open space areas. It is considered appropriate that the boulevard road treatment to the park be continued in this location.

Notwithstanding the above, it is noted that the rest of the boundary with the Plenty Gorge Park complies with the MSP requirement for a low density interface with accompanying boulevard road treatment.

Figure 35 Design Response - Density (NAC and Community Facilities)

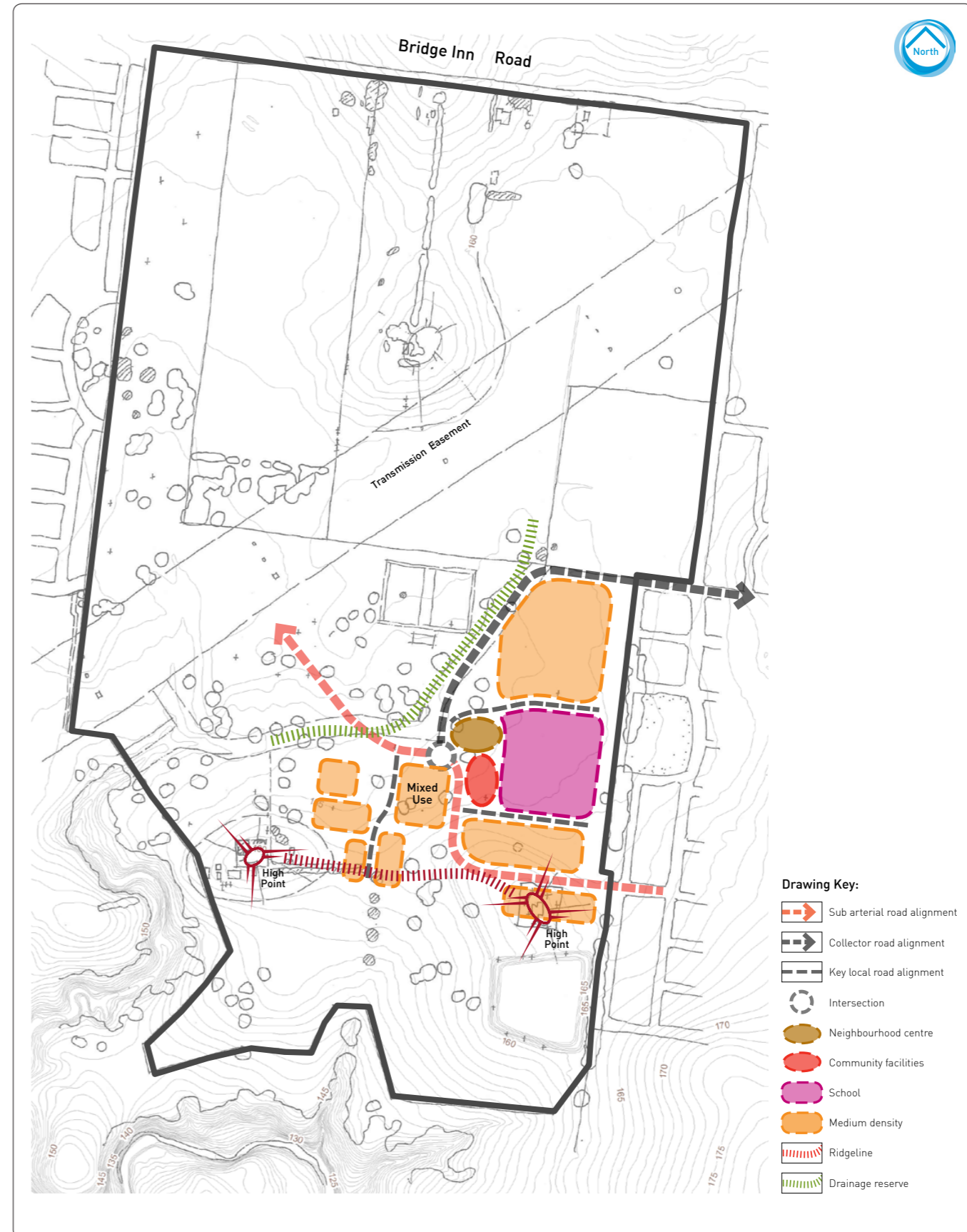




Figure 36 Design Response - Density (Local Conditions)



Figure 37 Design Response - Density (Low Density)

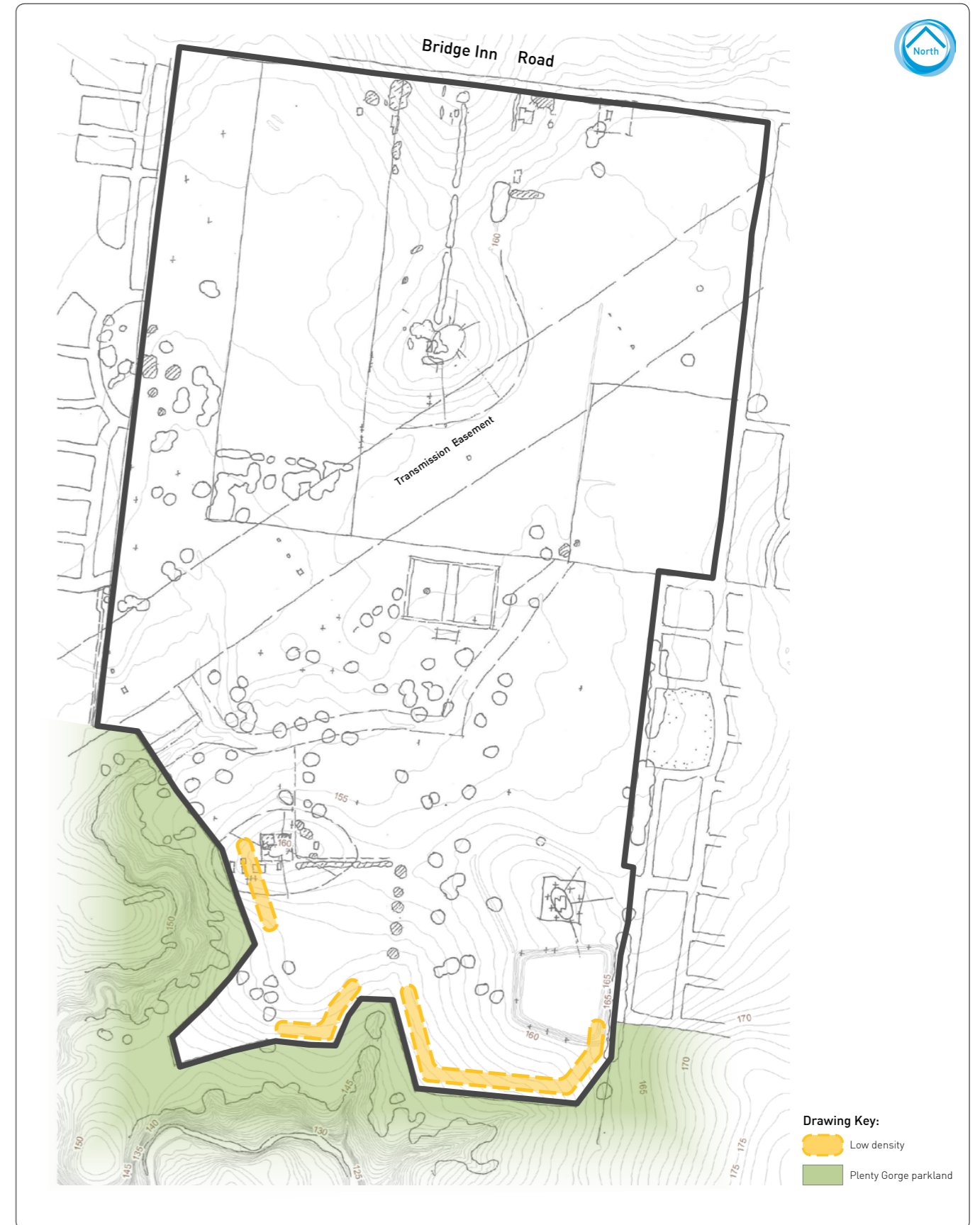
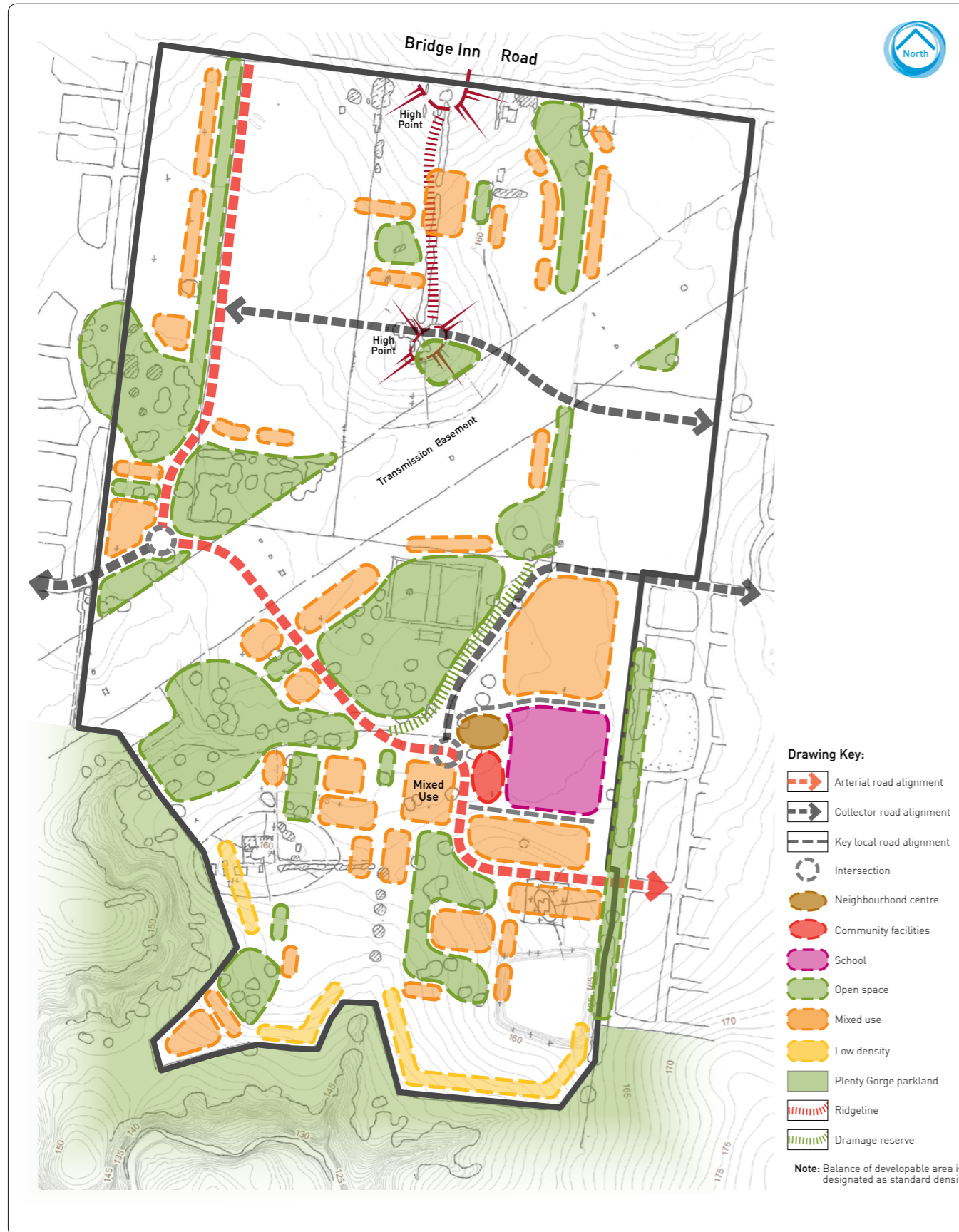


Figure 38 Design Response - Combined Density



## 4.9 Drainage & Services

Figure 39 depicts the proposed location for the various pieces of infrastructure required to service the APDP area. Whilst Figure 39 spatially represents the location and extent of these various services, the plan also proposes a design which seeks to limit the visual impact of certain infrastructure and, where possible, co-locate additional facilities for the community.

To this end the design response as detailed in Figure 39 seeks to: -

- minimise the visual impact of the transmission easement by incorporating areas of open space, two of which contain River Red Gums;
- locate a shared path within the easement which links the adjacent development to the east to the APDP area and the community node and active open space;

- locate open space beside the transmission easement so that the edges become less linear;
- maximise extent of road frontage to avoid allotments 'backing on' to transmission and drainage reserves to encourage passive surveillance of these spaces and provide for a more attractive urban design outcome;
- minimise issues associated with clearance under the power lines with the two roads crossing the easement at 90° close to the pylons; and
- incorporate the revised drainage strategy whereby Melbourne Water has agreed to relocate the large wetland/retarding basin from the south of the transmission easement to within the easement. However, it is important to note that the area originally identified for this drainage infrastructure in the MSP is heavily populated with mature vegetation, in particular River Red Gums, that will need to be protected. This will need to be taken into account in determining the extent of the balance area of the land previously set aside for wetland/retarding basin that is available for development.

Figure 40 provides a summary of all the design response plans discussed within this section.

Figure 39 Design Response - Services and Drainage

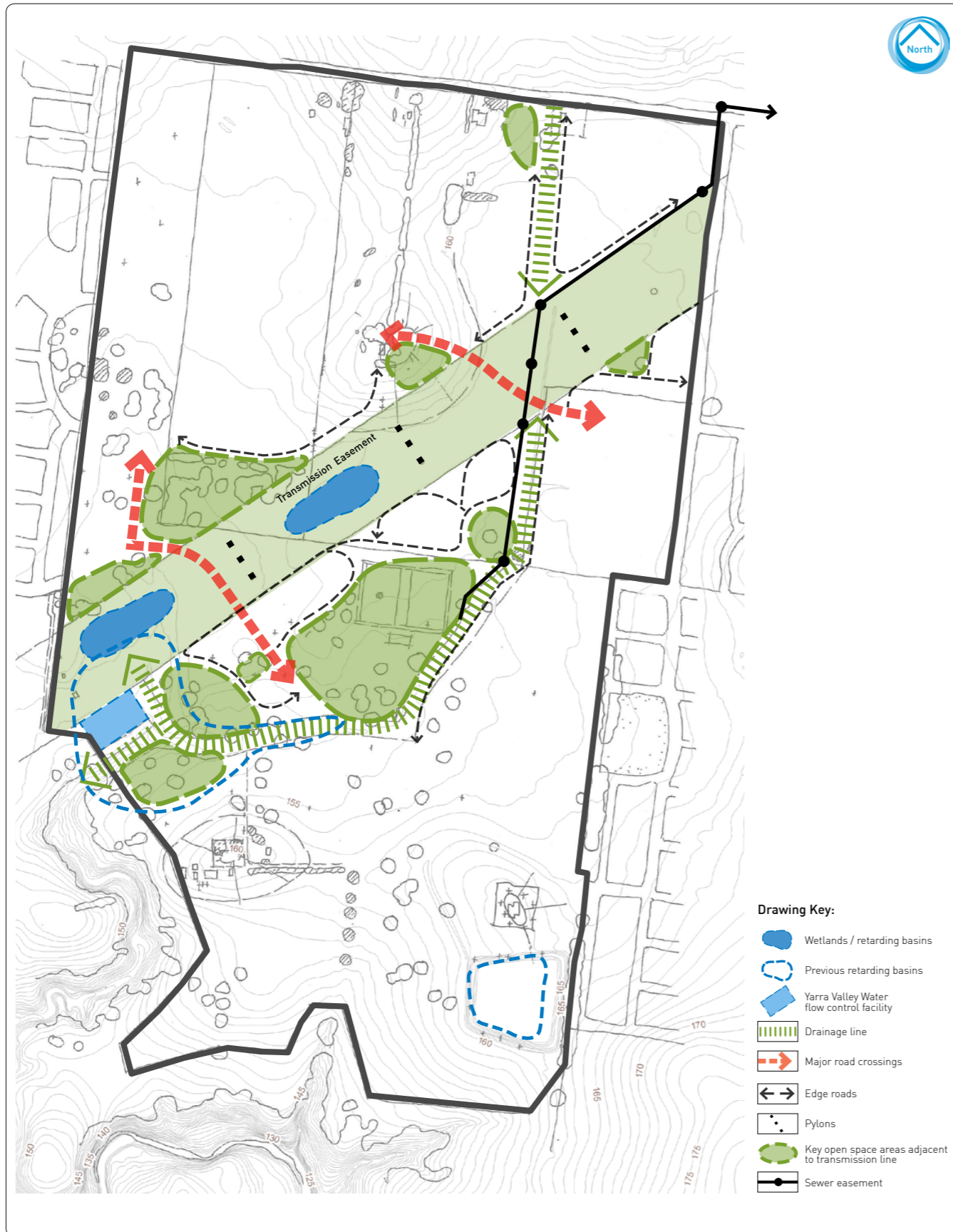
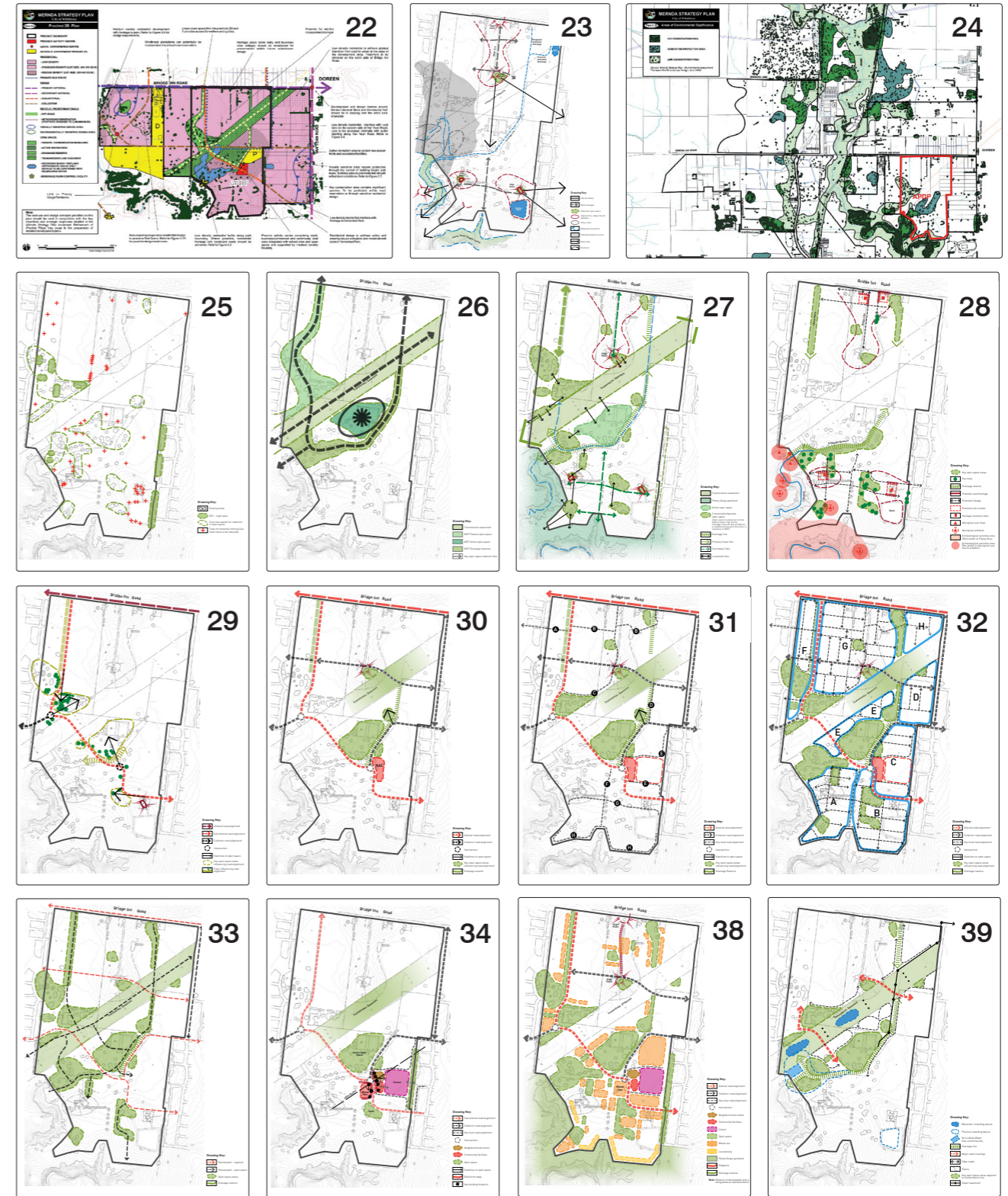


Figure 40 Design Response - Overall Design Response Plans (Figures 22 to 39)



# Part 5 Development Plan



*City of Whittlesea*

# 5.0 Development Plan

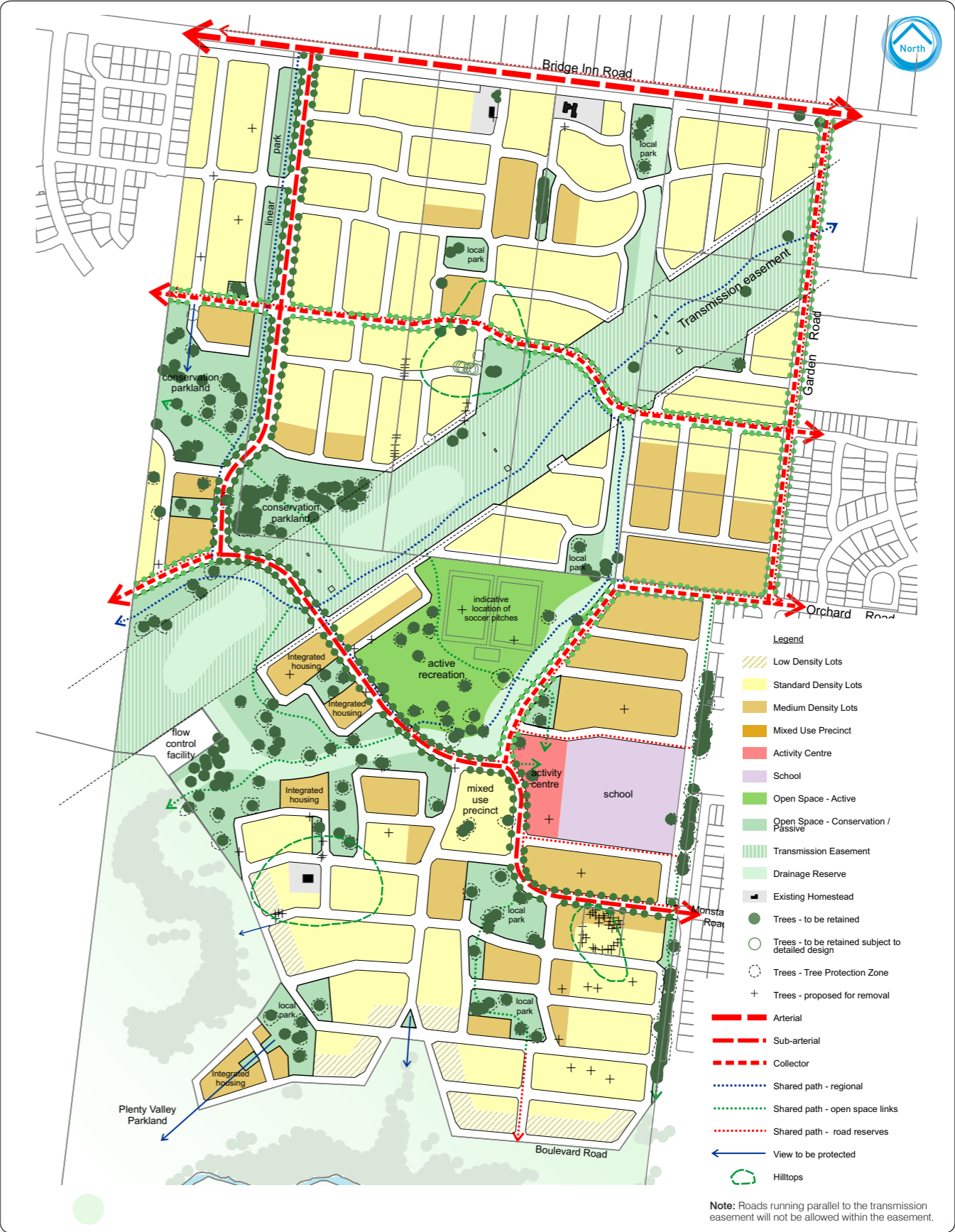
This section brings together the objectives of the MSP and design response in finalising the Development Plan (Figure 41). Key aspects of the Development Plan are discussed following.

## 5.1 Topography and Viewlines

The APDP incorporates the following key elements related to topography and viewlines:-

- part of the main highpoint immediately north of the transmission easement has been retained in open space;
- viewlines to the west (to the Plenty Gorge Park) in the south-western precinct of the APDP area have been maintained through the east-west alignment of the local road network and associated boulevard road treatment;
- the viewline to the south is maintained and accentuated along the central north-south road south of the transmission easement;
- the boulevard road treatment along the park interface protects views both to and from the park;
- the southern high points have not been retained in open space as they were not considered significant. It is noted that the southern portion of the APDP contains areas set aside for preservation of existing vegetation in proximity to the high points. Given the above, it was considered that the priority in this area be to preserve the existing vegetation versus setting aside these specific high points; and
- the road network has been designed taking account of the two southern high points and associated ridge through the provision of an east-west road connecting these areas and promoting viewlines at the termination points.

Figure 41 Development Plan



## 5.2 Existing Vegetation

The APDP layout has preserved a large percentage of existing vegetation. Table 4 details the extent of proposed tree retention and removal.

In summary, of the 435 trees surveyed, 80 are proposed for removal and 13 are dead. This represents an overall retention rate of 78.6%. Of these 80 trees proposed for removal, 25 are native to Victoria and 27 are indigenous. In terms of the 335 River Red Gums, only 21 are proposed for removal which represents a 94% retention rate. This is considered an extremely high rate of retention. Of these 21 River Red Gums proposed for removal, none were considered of high significance. Notwithstanding the thorough analysis to date, any tree proposed for removal at planning permit stage will need to be supported by aboriginal and ecological assessments prepared by suitably qualified consultants.

Figure 42 represents the extent of tree removal proposed in the APDP in conjunction with the arboricultural report's significance rating. Figure 43 identifies the tree removal proposed within the APDP when compared with the arboricultural assessment. In reviewing these figures, reference should be made to Figure 15 which details the specific species for each of the trees surveyed.

The APDP layout has sought to maximise preservation of existing vegetation, particularly copses of trees, within open space areas to provide the greatest opportunity to maintain the health and ongoing integrity of the vegetation and to emphasise them as key design features within the APDP area.

The design response has resulted in a larger number of trees being retained within the APDP than recommended within the arboricultural report (John Fordham Horticultural Services, 2007). The relationship between open space and tree retention is further discussed in Section 5.4.

It is noted that the extent of indigenous vegetation proposed for removal will require offsetting against the Native Vegetation Framework. A Native Vegetation Offset Management Plan will be required prior to the subdivision permit stage. The only trees that can be protected under the Framework are those that can be retained in conservation reserves and the protection setback is twice the canopy width. Indigenous trees that are to be retained but not 'protected' will not be credited

as an offset. It should also not be assumed that all open space within the APDP area will be able to accommodate offsets given the specific functions of the open space (passive, active etc). Preserving tree copses within open space areas will maximise opportunities for natural regeneration.

## 5.3 Heritage

The Development Plan provides for the retention of European heritage elements within larger allotments integrated as part of the proposed road network. The ultimate extent of area to be set aside to protect these elements will be determined via more

detailed heritage assessment at the subdivision permit stage. Mechanisms for the ongoing protection of these sites will need to be investigated at the subdivision permit stage (e.g. Section 173 Agreement, application of heritage overlay, etc.).

The existing homestead in the south-western portion of the site has not been assessed for its potential heritage significance. The APDP proposes its retention however, should further heritage assessment deem this not warranted, the site can be converted to accommodate residential subdivision. The surrounding road network and subdivision layout of this homestead site is subject to change at the subdivision permit stage, depending on the outcome of a more detailed heritage assessment.

As previously discussed in Section 4.5, one aboriginal archaeological site comprising an artefact scatter is located within the APDP area. The APDP does not currently provide for its retention in open space. Following further assessment at the subdivision permit stage, the subdivision layout and open space design may require revision to provide for the ongoing management of the Aboriginal archaeological site should it be deemed warranted as part of this assessment. In addition, a Cultural Heritage Management Plan (CHMP) will be required to ensure appropriate management/treatment of this site.

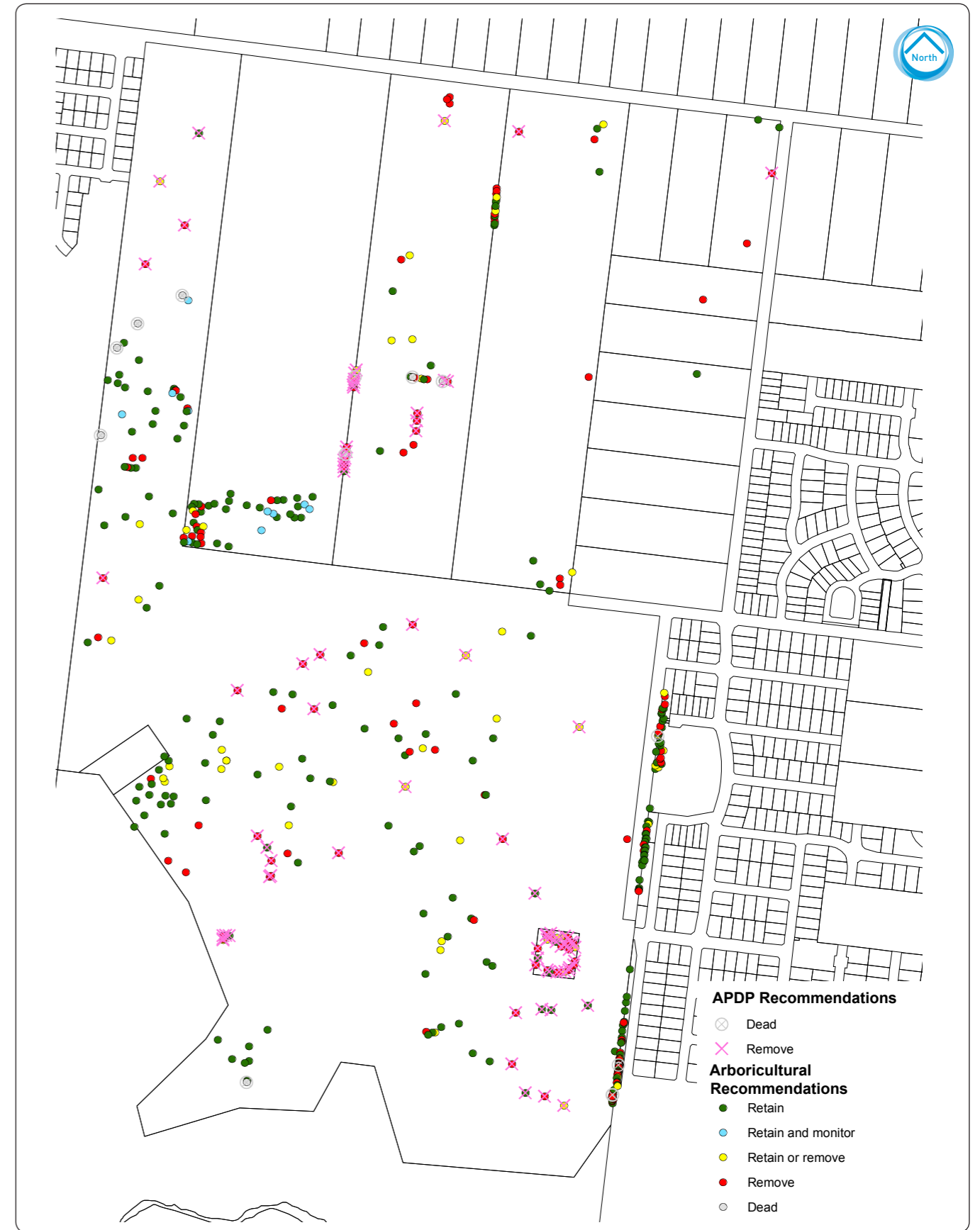
Table 4 Proposed Tree Retention/Removal

Name	Total	To be retained	Dead	To be removed	Classification
Bracelet Honey Myrtle	1			1	Native to Victoria
Brittle Gum	3			3	Native to Victoria
Bushy Sugar Gum	1			1	Native to Australia
Claret Ash	1			1	Exotic
Dead tree	3		3		Not applicable
Deodar	1			1	Exotic
Dwarf Sugar Gum	5	4		1	Native to Australia
English Oak	3			3	Exotic
Eucalyptus sp.	6	2		4	Native to Australia
Forest Oak	1			1	Exotic
Golden Elm	1			1	Exotic
Golden Horizontal Cypress	2			2	Exotic
Lemon Scented Gum	1	1		1	Native to Australia
Manna Gum	1			1	Indigenous
Narrow Leafed Peppermint	5	2		3	Indigenous
Pepper Tree	5			5	Exotic
Pin Oak	2			2	Native to Australia
Plum	1			1	Exotic
Red Gum	335	305	9	21	Indigenous
Rose She Oak	1			1	Native to Australia
Silky Oak	2	1		1	Native to Australia
Southern Blue Gum	4			4	Native to Victoria
Southern Mahogany	18	3	1	14	Native to Victoria
Spotted Gum	23	20		3	Native to Victoria
Willow	3	1		2	Exotic
Yellow Box	5	4		1	Indigenous
Yellow Gum	1			1	Indigenous
<b>Total</b>	<b>435</b>	<b>343</b>	<b>13</b>	<b>80</b>	
<b>Red gum retention 94%</b>					

Figure 42 Arboricultural Significance (Trees)



Figure 43 Proposed Tree Retention/Removal



## 5.4 Open Space

### Background

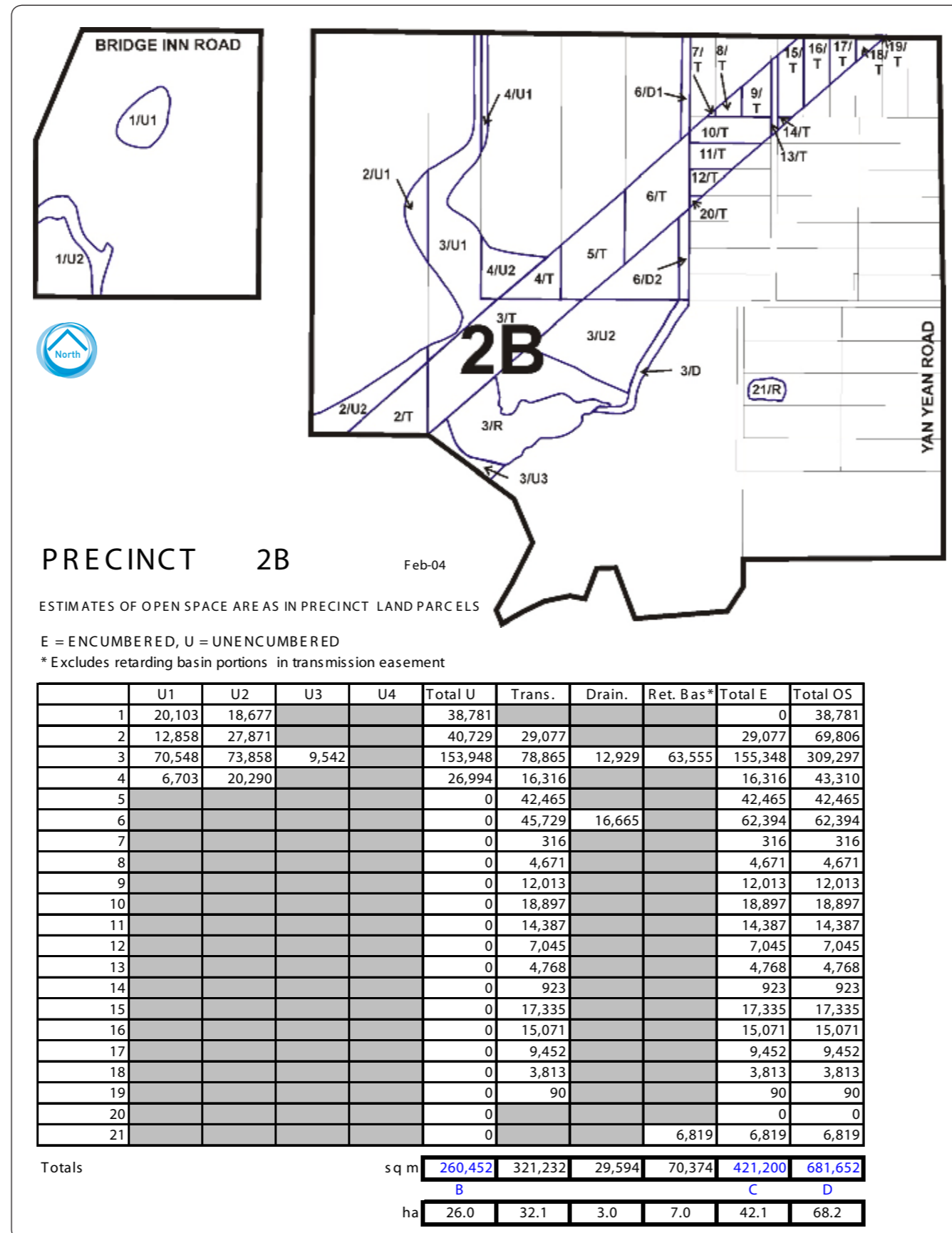
The overall open space framework for MSP Precinct 2B is identified in Figure 44. This figure contains the area of open space for each landholding as identified within Precinct 2B of the MSP (refer to Precinct 2B plan - Figure 22.) The APDP relates specifically to landholdings 3,4,5,6,7,8,9,10,11,12 and 20 within this figure.

Figure 44 essentially categorises open space as unencumbered or encumbered open space. The overall Precinct 2B open space percentage, forming part of the development contributions framework, is derived from these figures and effectively functions as an equalisation scheme at the precinct level. To this end, whilst there is some flexibility to refine the open space framework identified in the MSP as part of more detailed analysis at the Development Plan stage, the quantum and general location of the MSP open space needs to be taken into account within the APDP. The extent of unencumbered open space identified in Figure 44 represents the maximum open space that can be credited as part of the MSPDCP. As such any additional open space provided on individual landholdings for local design considerations such as tree preservation, hilltop/viewline preservation, local pocket parks etc, above the extent identified in the MSP cannot be credited within the MSPDCP framework.

From an MSPDCP open space credit perspective, all unencumbered open space is valued equally regardless of whether it is for active, passive or conservation purposes. However, the MSP does identify the area requirements for each of the open space categories for each precinct. This is particularly important for active open space where minimum areas are set aside to accommodate all the necessary/ associated infrastructure that make up the open spaces purpose, in this instance a two pitch soccer facility (e.g. playing surface, pavilion, car parks etc.). The APDP therefore must be cognisant in ensuring not only that the location and quantum of open space is in accordance with the MSP, but also accounting for the requirements of specific types of open space.

It must be noted that drainage reserves, retarding basins/wetlands and transmission easements are considered 'encumbered' in the MSP and, as such, not credited as open space.

Figure 44 MSP Precinct 2B Open Space Framework



### Open Space within APDP

Figure 45 details the APDP open space network. It represents a refinement of the MSP open space network identified in Figure 44. Figure 46 provides the area of open space for each landholding as per the APDP open space network. The details for each APDP landholding will be discussed in turn based on the property number reference contained within Figures 44 & 46.

### Landholding 3 – 790 Bridge Inn Road

This landholding contains the largest amount of unencumbered open space within APDP area. It contains the active open space area, a portion of the linear open space link and conservation parkland. The quantum of open space on this landholding is greater than that contained in the MSP Precinct 2B Plan (compare Figures 44 & 46). This relates primarily to the areas required to retain existing vegetation, noting also that despite the relocation of the retarding basin/wetlands to within the transmission easement, the area previously set aside for this purpose contains a large amount of existing vegetation (River Red Gums) which are being retained within open space. As noted earlier, there is no credit available under the MSPDCP for additional open space areas above the quantum identified in the MSP.

The layout has sought as key design outcomes to maintain the north-south open space as a major linear link, retain the conservation area in the 'neck' of the property and provide the active open space area located in the centre of the precinct.

Notwithstanding the above, the APDP layout has refined the MSP Precinct 2B open space area network taking into account more detailed site specific assessment. This refinement has to some extent taken account of the extent of area required to preserve existing vegetation through reduction in the areas set aside as open space in the MSP. Examples include the reduction in area of the active open space from 7.4 ha in the MSP to 6.62 ha in the APDP and the reduction in the total area of open space north of the transmission easement on this landholding from 7.05 ha to 5.6 ha.



Figure 45 APDP Open Space Network

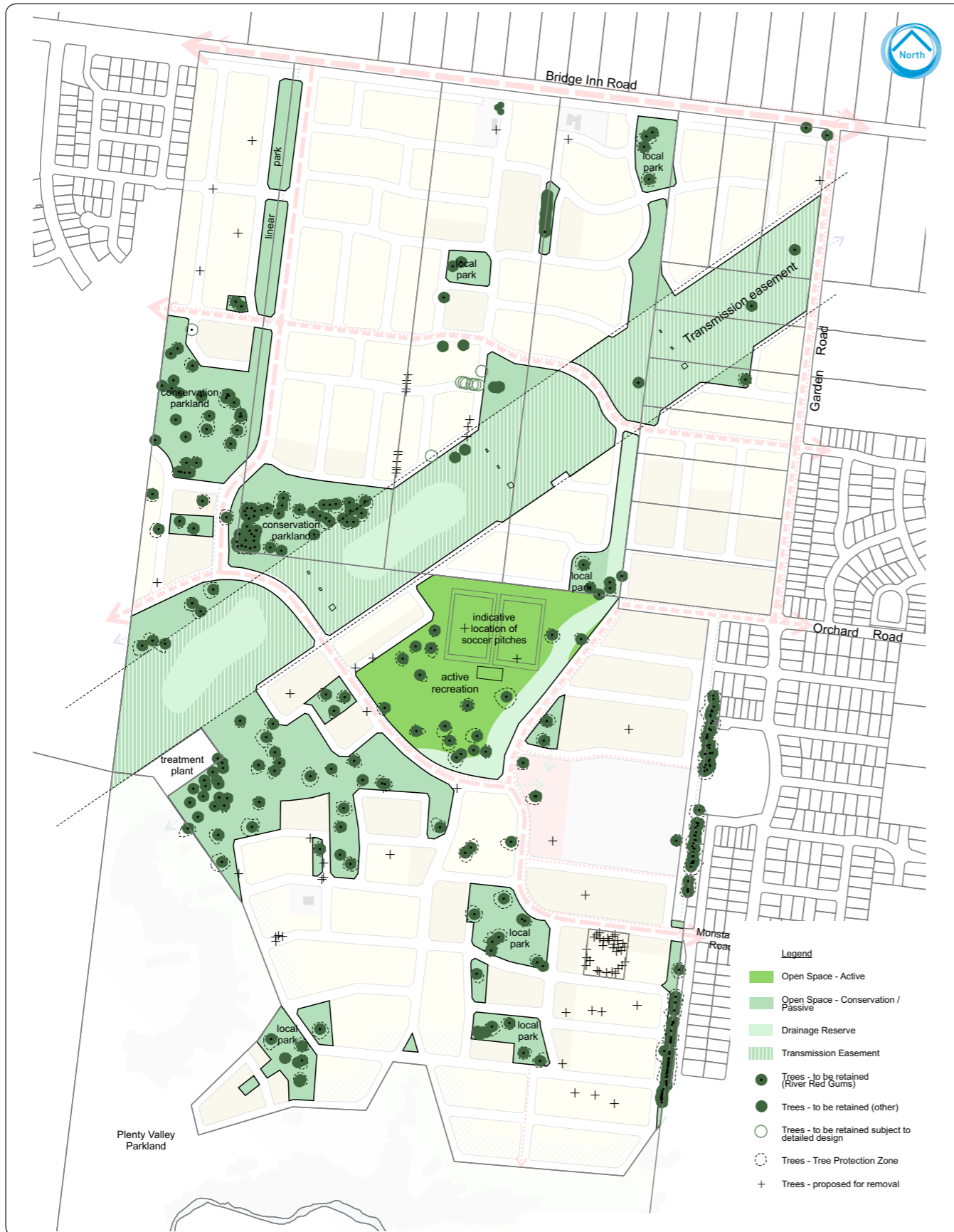
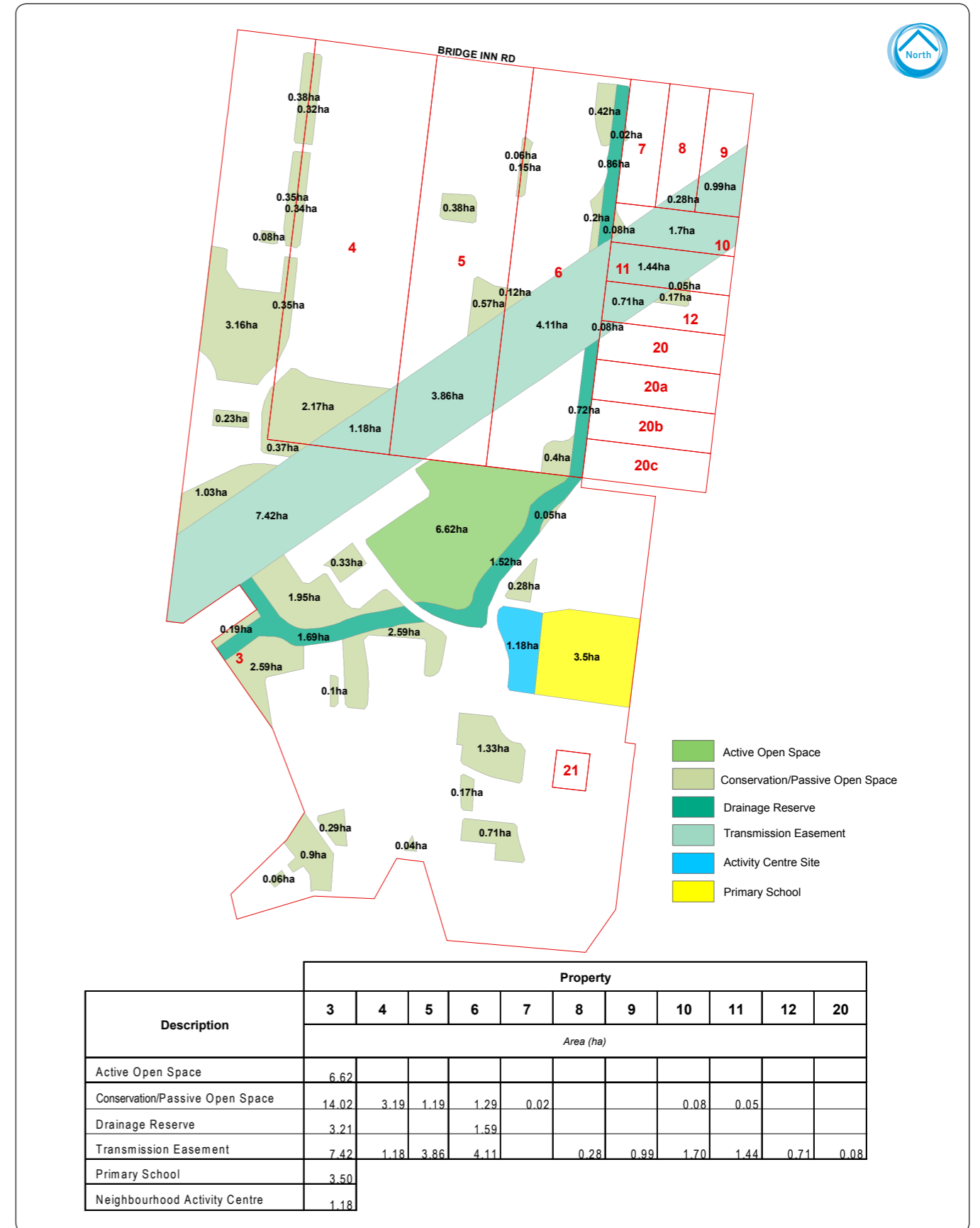


Figure 46 APDP Open Space Areas



It is considered that this represents a practical balance at maintaining the key objectives of the MSP open space network, whilst acknowledging to some degree the extent of area required for tree preservation in the balance of the site and detailed site issues. With respect to the active open space the area identified is considered the minimum area possible to provide the infrastructure associated with a two soccer pitch facility (e.g. pavilion, car park, roads) and retention of existing trees on the site.

#### **Landholding 4 – 820 Bridge Inn Road**

The layout provides for continuation of the north-south linear link – shared equally with landholding 3, and the conservation parkland in the southern portion of the landholding. The areas have been refined taking account local design considerations e.g. extension of the linear link essentially along the majority of the western boundary and an increase in the extent of the southern open space conservation area to account for preservation of the east/west windrow on the northern boundary of this open space. This windrow was not surveyed as part of the vegetation assessment. Its ultimate retention will be determined at the subdivision stage taking account of its health, viability and contribution as an existing character element. Similar to above, open space will only be credited to the quantum identified in the MSPDCP.

#### **Balance of APDP Landholdings**

The MSP does not identify any specific open space on any of the balance landholdings. This however does not preclude the requirement to provide open space taking account local design opportunities. Open space has been identified within landholding 5 to preserve trees and provide a local open space opportunity in the central northern part of the APDP area. Further on landholding 5, an open space area has been identified incorporating the highpoint, existing vegetation and abuttal to the transmission easement.

The other landholdings to the east have smaller open space areas set aside for tree protection and, where possible, their abuttal to drainage reserves/ transmission easements have been maximised. This serves to break up the 'linearity' of these elements as well as making the spaces appear larger from a visual perspective. None of the open space areas will be credited under the MSPDCP.

#### **Encumbered Areas**

In accordance with the MSPDCP encumbered areas such as transmission easements and drainage reserves are not included within open space or development contributions as their primary purpose is to accommodate electricity and drainage infrastructure respectively. As major elements within the APDP area they offer potential as linking elements within and external to the APDP area. As such shared paths will be accommodated within these areas in accordance with the MSP. The regional path is contained, for the majority of its length, within the electricity easement and drainage reserve. As identified in earlier sections, provision of the regional shared path will be credited as a development contribution item in accordance with the MSPDCP.

It is anticipated that the transmission reserve will be transferred into Council ownership at no cost at the time of subdivision of the abutting developable area.

With respect to the drainage reserve, it is standard practice within the City of Whittlesea that Council enters into a maintenance agreement with Melbourne Water where Council maintains the drainage reserve batter slopes and Melbourne Water maintain the pilot channel at the base of these reserves. Any such agreement will be subject to negotiations with Melbourne Water at the appropriate time.

It must be noted that the ultimate extent and spatial requirements of the drainage reserve will need to be determined at the subdivision stage. The City of Whittlesea will require no steeper than 1 in 6 batter slopes for the drainage reserves to allow for maintenance and appropriate integration of these into the broader subdivision layout.

### **5.5 Movement Network**

#### **Design Objectives**

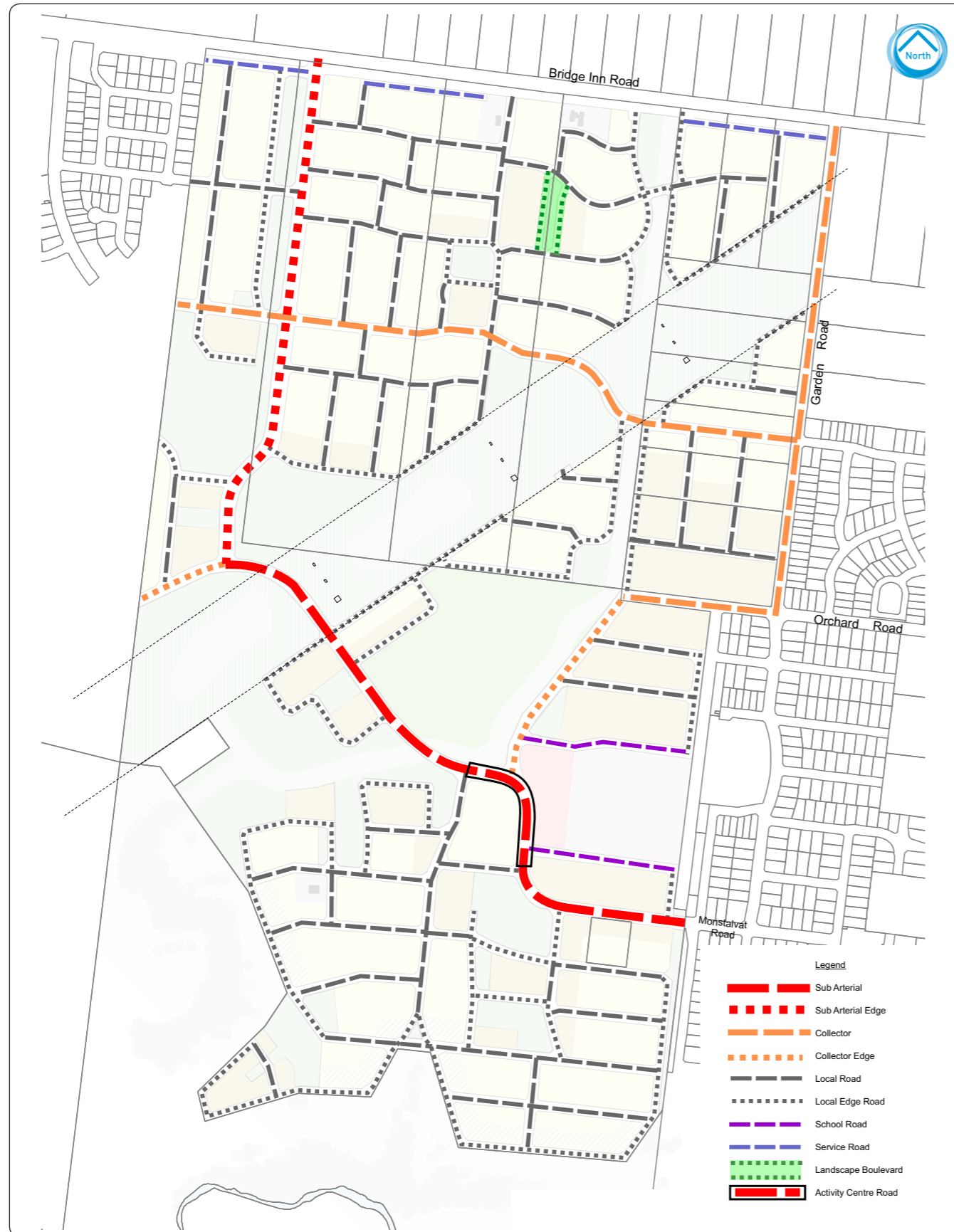
The movement network for the APDP responds to a range of objectives including -

- supporting a range of transport alternatives including public transport, walking and cycling;
- supporting increased patronage of public transport with emphasis on buses and creating strong links to the Mernda Town Centre, where the future rail station is to be located;
- integrating the communities within Precinct 2B and providing strong connections to the local community activity node and more broadly to Precinct 2A to the north, and Precinct 5 to the west, which contains the Mernda Town Centre;
- supporting increased densities and a diversity of housing options;
- addressing the impact of the transmission easement and drainage line;
- supporting the establishment of an evenly spaced modified grid which has regard to topographic, conservation, cultural and heritage elements;
- supporting streetscape diversity and character;
- providing for both commuter and recreational cyclists; and
- providing a framework for long vistas and landmarks to be established.

The movement hierarchy is illustrated in Figure 47. The roads fall into three basic categories in line with the MSP – Sub-arterial, collector and local roads. Additional road types are nominated which account for specific design contexts e.g. edge roads – where they abut open space, service roads, school interface roads and landscaped boulevards.

The cross-sections for each of the road types in Figure 47 are discussed below.

Figure 47 Movement Hierarchy



**Sub-Arterial & Collector**

Whilst the APDP reflects the requirement for a sub-arterial road link, from a cross-section perspective, it is considered sufficient to provide the same cross-section as that proposed for the collector road (Figure 48). The practical difference in application between the two relates to provision of on-pavement bicycle lanes for the sub-arterial road versus provision of a shared path on the collector road. The rationale in this instance being that the higher order sub-arterial road carries greater traffic volumes, has greater capacity, provides for more of a direct commuter route and, as such, is suited to the incorporation of on-pavement bicycle lanes. It is important to note apart from the shared path/bicycle lane, the functionality between these roads is the same i.e. two clear travel lanes and on-street parking.

Given the locational context of this sub-arterial road linking into collector roads in adjacent landholdings, running parallel to open space for extended lengths and likely traffic volumes, it is considered appropriate to downgrade the cross-section and apply the same cross-section elements proposed for collector roads. In this context, the on-pavement bicycle lanes are not considered necessary and can be replaced with a single 2.5 metre wide shared path in line with the collector road cross-section.

The sub-arterial/collector road cross-section (Figure 48) provides for two clear travel lanes (2 x 3.5 metres wide) which accommodate bus requirements, 2 x 2.1 metre wide parking lanes, a 2.5 metre shared path on one side and minimum naturestrip widths to accommodate street trees and services. The overall reserve width is 20.6 metres. It is noted that the MSP provides for an overall 20 metre reserve width for sub-arterial and collector roads. This increase has been required to meet minimum standards. These include 3.5 metre wide travel lanes to accommodate minimum bus requirements and provision of a minimum 2.5 metre wide grassed naturestrip area to accommodate street trees (the 2.65 metre width in the cross-section includes the kerb dimension). The minimum 2.5 metre grassed area is required given the soil quality and climatic conditions prevalent within the City of Whittlesea. Further, because direct property access is proposed onto these roads, allowance must also be made for parking lanes in conjunction with accommodating the traffic functionality of the two clear travel lanes.

**Sub-Arterial Edge Road**

This applies to the north-south sections of the sub-arterial abutting the linear reserve (Figure 49). The same traffic functionality has been provided as the sub-arterial/collector road cross-section above i.e. two clear travel lanes, but in this instance the naturestrip and parking lane are not required along the side of the linear reserve. Further, because the shared path can be located within the linear reserve, it has also been removed from this cross-section, with one standard width footpath (1.5 metre wide) provided on the property side.

The naturestrip width has been increased to a minimum 3.65 metres wide to account for the fact that all services (including street tree planting) will need to be accommodated in the verge on one side of the cross section (property side), avoiding location of services on the reserve side.

A 1.3 metre wide section has been provided on the reserve side to allow for potential services that may be required such as drainage (pits and pipes), lighting etc. This approach is applied to all 'edge' condition cross-sections within the APDP.

**Collector Edge Road**

This cross-section (Figure 50) applies to areas where the collector road abuts the drainage reserve. A 2.5 metre wide shared path is accommodated, a minimum 3.65 metre wide naturestrip to accommodate all services (including street tree planting) on one side, whilst the parking lane, footpath and majority of the naturestrip has been removed from the drainage reserve side.

**Collector Road – Western Connection**

The northern east-west collector road linking to the abutting property to the west will need to transition from the collector cross-section applied in the adjoining property to the standard collector road cross-section to be applied within the APDP. This transition should occur at an appropriate point e.g. an intersection.

**Local Road**

The local road cross-section (Figure 51) provides for a 7.3 metre pavement (face to face), 2 x 1.5 metre footpaths and 2 x 2.8 metre naturestrips. The majority of the APDP road network will be based on this cross-section.

Figure 48 Sub Arterial and Collector Road Cross Section

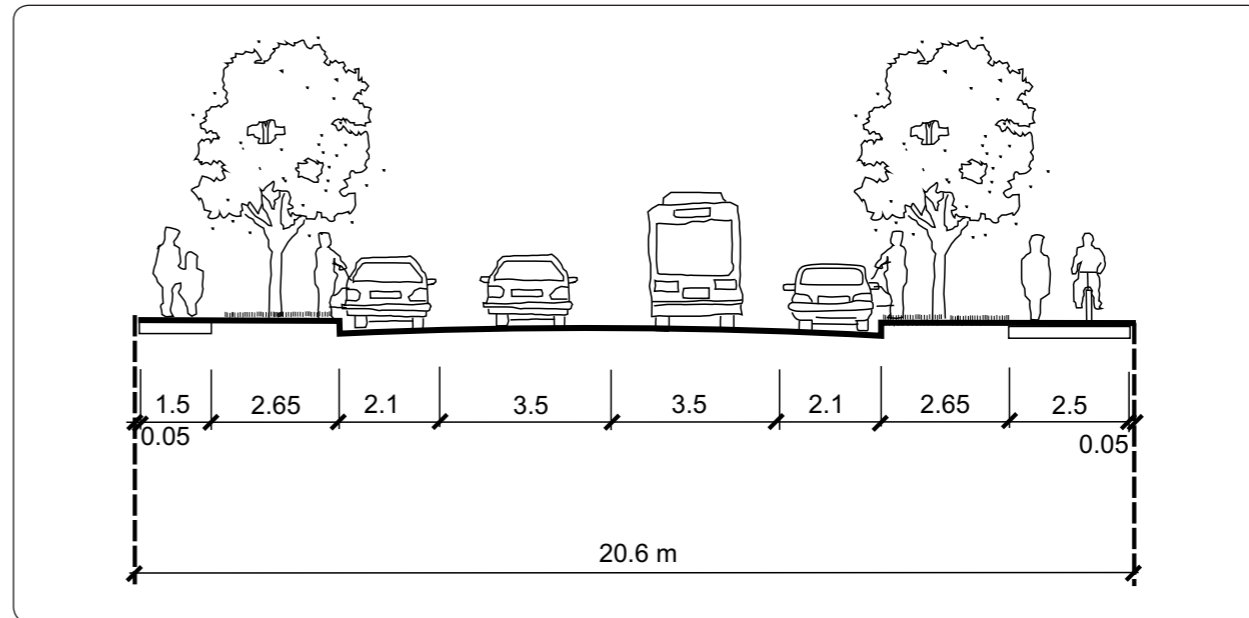


Figure 49 Sub Arterial Edge Road Cross Section

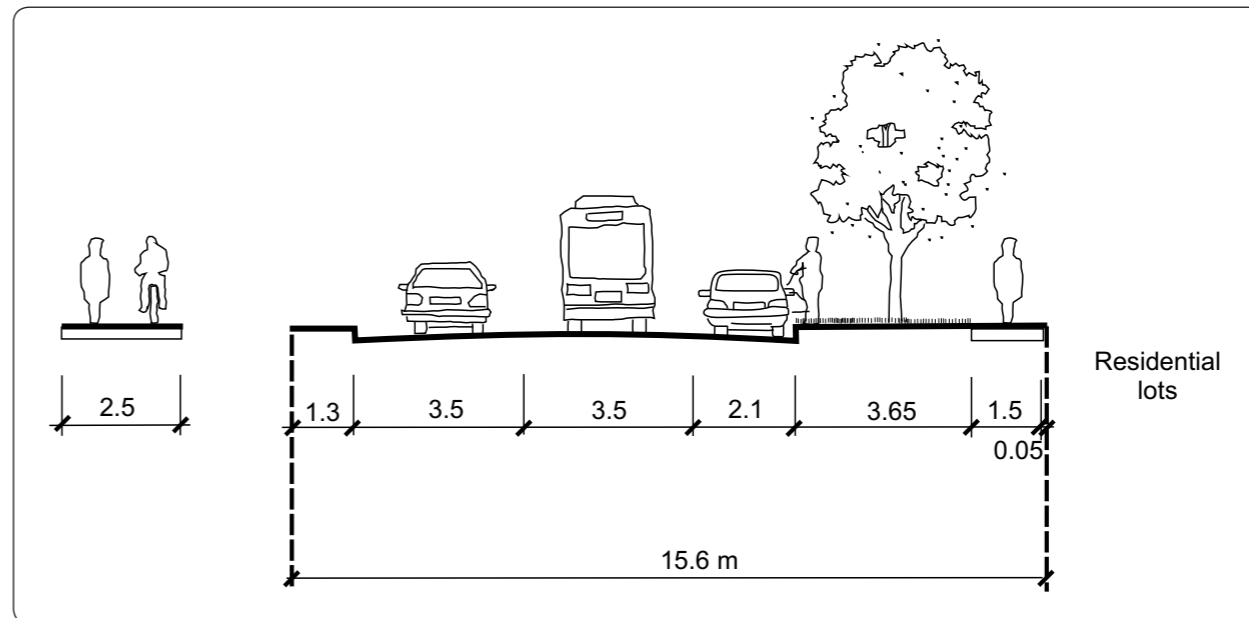


Figure 50 Collector Edge Road Cross Section

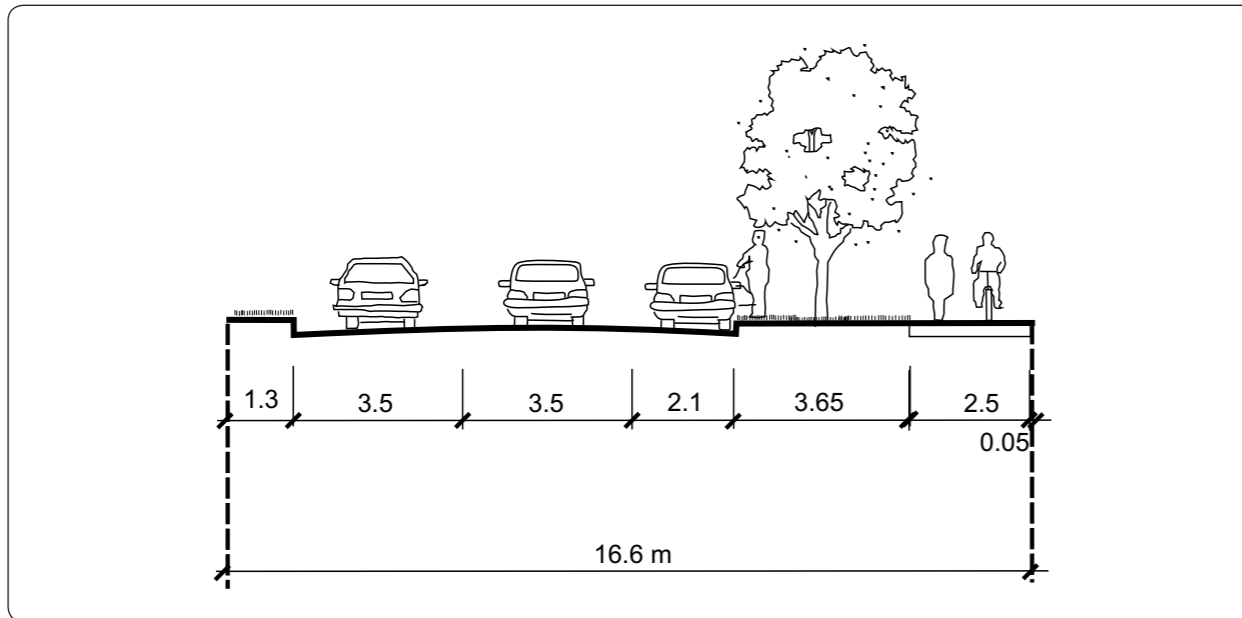
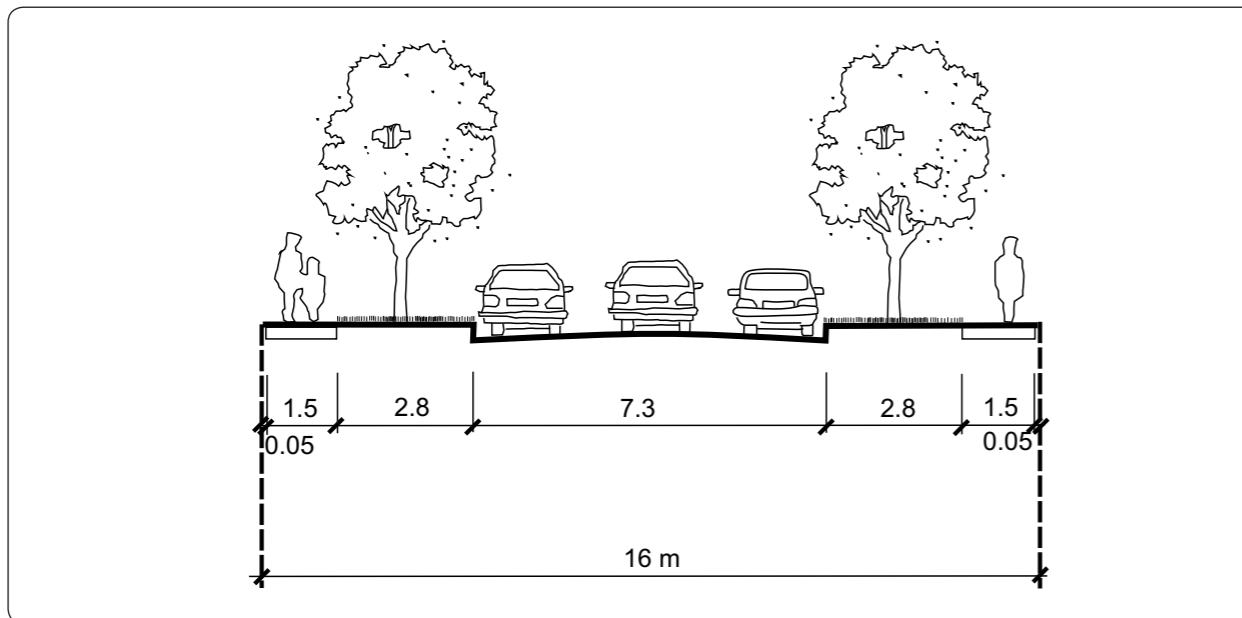


Figure 51 Local Road Cross Section



**Service Road**

The service road cross-section (Figure 52) is to be applied along the Bridge Inn Road interface as the preferred form of access control. This is a one way service road with a 5.5 metre wide pavement (face to face), a 3.65 metre wide naturestrip on the property side to accommodate all the underground services and street tree planting. It also incorporates 1.8 metre wide outer separator to be combined with the Bridge Inn Road cross-section to accommodate any potential services, landscaping or infrastructure (e.g. paths).

**Local Edge Road**

This cross-section (Figure 53) is to be applied along one sided local road conditions e.g. abutting the drainage reserve, transmission reserve, tree reserves and open space. The cross-section contains the 3.65 metre wide naturestrip to accommodate all the underground services. A 7.3 metre wide pavement has been provided in this cross-section.

A 5.5 metre wide pavement will be considered on a case by case basis where traffic conditions warrant. Areas which are likely to have higher traffic volumes e.g. around the School and Plenty Gorge Park or where relatively short lengths of edge road conditions link with standard local road cross-sections, will require a 7.3 metre pavement.

In situations where curved alignments provide difficulty for passing opportunities, local widening will be required.

**School Road**

A specific cross-section (Figure 54) has been developed to assist with traffic and pedestrian circulation around the school site (Figure 54). This accommodates a shared path and indented 60° parking on the school side to maximise access and parking opportunities. The pavement will be able to accommodate two clear traffic lanes.

**Boulevard Road**

This cross-section (Figure 55) has been developed to accommodate an existing stand of gum trees in a widened central median. Standard naturestrip and footpath widths have been applied with minimum 5.5 metre pavements to accommodate parking on the property side and a travel lane. The central median is considered the minimum required to ensure ongoing viability of the existing trees.

**Rear Lane**

A minimum 7 metres cross-section (Figure 56) is to be applied in laneway situations. At the subdivision stage it will need to be demonstrated that lighting and services can be accommodated within the cross-section in the context of vehicle access and turning movements.

**Bridge Inn Road**

In accordance with the MSP a 16 metre wide strip of land is required to be set aside at the time of subdivision from the frontage of all properties abutting Bridge Inn Road to provide the land requirements for its ultimate duplication.

The MSP identifies Bridge Inn Road as an arterial road. There will be no direct property access or parking on this road. A service road treatment is required to provide the appropriate property access control and ensure that a key design objective of promoting an active, residential frontage is achieved.

All road intersections with Bridge Inn Road will need to take into account the interim and ultimate intersection design requirements both in terms of ensuring sufficient land (splays etc.) is set aside to accommodate the ultimate intersection treatments and that interim works are designed to minimise reconstruction/demolition works when the ultimate treatments are implemented.

Interim and mitigating works relating to the duplication of Bridge Inn Road and the intersection with Bridge Inn Road will be assessed at planning permit stage.

Determination of an appropriate width for the outer separator between Bridge Inn Road and abutting service roads will need to be resolved taking account relevant safety requirements and maximising landscaping opportunities. This needs to be taken into account in conjunction with the design and implementation of the service roads. The service road cross-section may require amendment to accommodate the principles above.

Figure 52 Service Road Cross Section

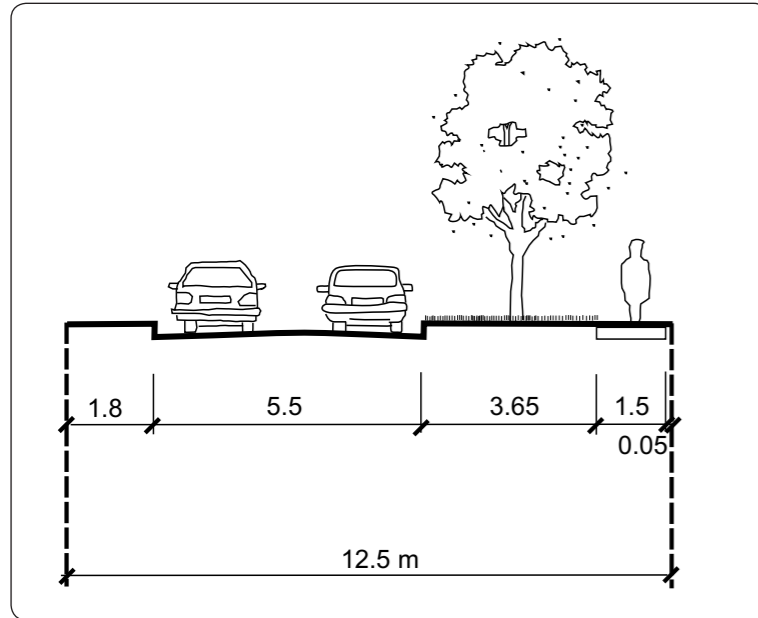


Figure 53 Local Edge Road Cross Section

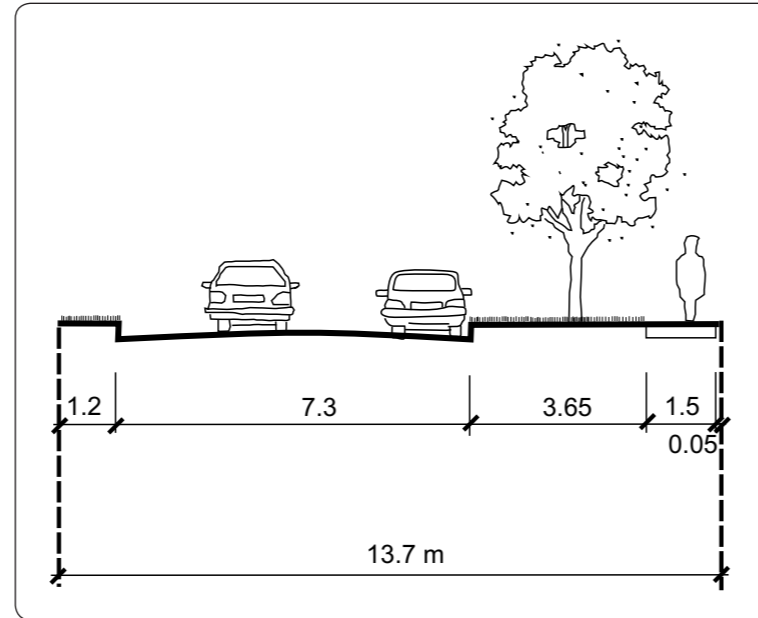


Figure 54 School Road Cross Section

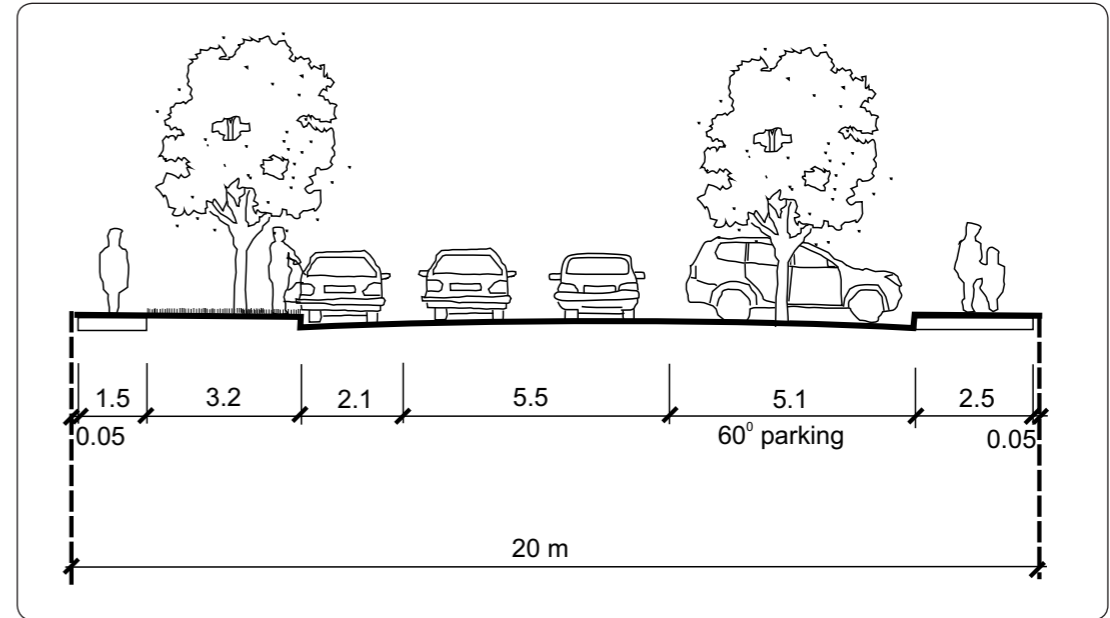


Figure 55 Landscape Boulevard Road Cross Section

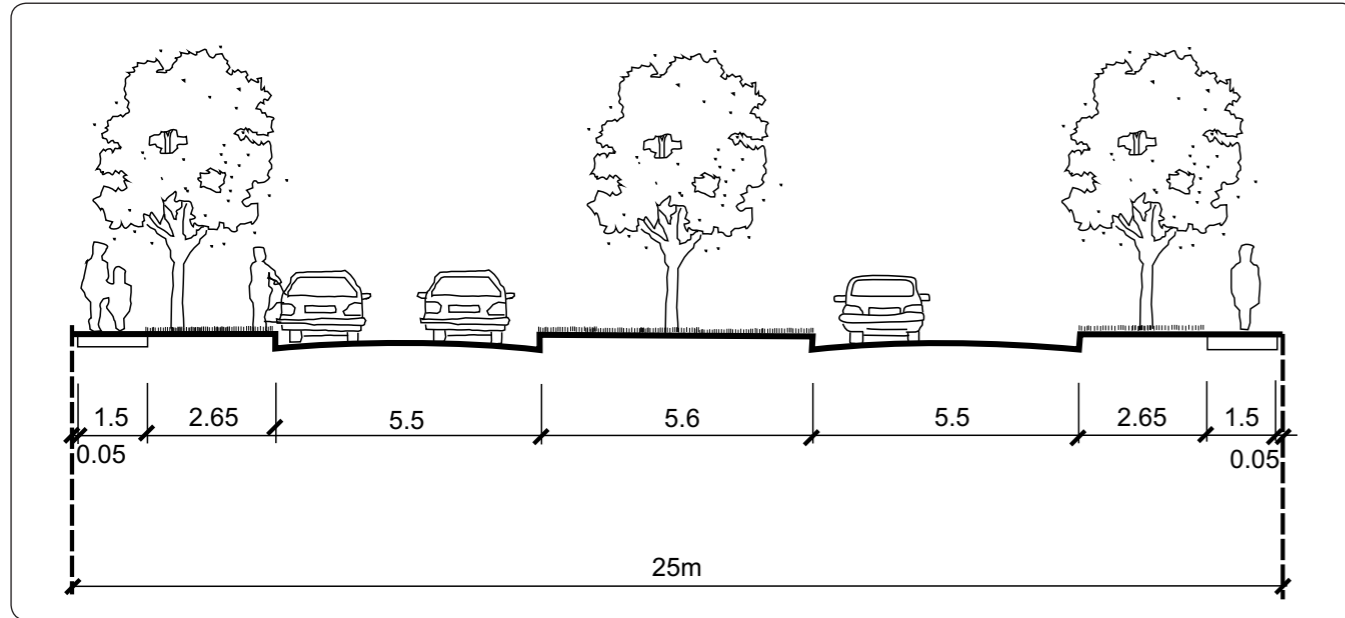
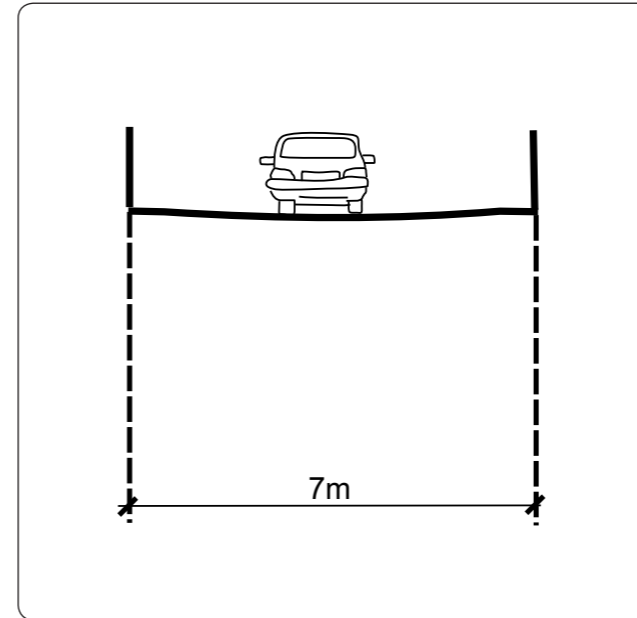


Figure 56 Rear Lane Cross Section



### Activity Centre

The ultimate cross-section for the portion of the sub-arterial road running through the mixed use/activity centre precinct will need to be developed as an integrated package with the detailed design of this precinct. A cross-section reflecting this locational context should be developed. This may include changes to accommodate additional parking, wider footpaths, wider landscape areas, central medians etc.

### Garden Road/Orchard Road

Garden Road and Orchard Road are located on the eastern boundary of the APDP area and generally perform a collector road function. Any development of land within the APDP abutting these roads will be required to contribute to their construction. Depending on the specific location along these roads and existing conditions, development will be required to either complete the construction of these roads, where they are already partially constructed, or to partially construct these roads to a minimum interim cross-section, to the satisfaction of Council, to service fronting allotments, until such time as the road cross sections are completed when development occurs on the opposite side.

### Local Road Link – Shared Path

The APDP identifies a shared path in the south-east corner of the APDP. Rather than terminating this path at the southern end of the open space it is intended to continue this path through the local road network to link with the Plenty Gorge Park. To this end the cross-section for this specific section of the local road must be widened to accommodate the extension of this link.

### Cross-section Variety

Developers may wish to implement cross-sections that vary to those detailed above to achieve a specific urban design outcome. Any such proposals will be considered on their individual merits and encouraged, noting that minimum requirements will still apply for specific cross-section elements.

### Additional Road Network Cross-section Issues

In addition to the cross-section details discussed above, the following specific matters must be noted:-

- barrier kerbs must be used in all cross-sections;
- all pavement dimensions within the cross-sections are from face to face of kerb;
- generally where services are proposed to be located within naturestrips on one side of the road reserve only, rather than distributed over naturestrips on two sides of road reserves, the naturestrip width will need to be wider to accommodate these services and their required offsets, which may impact on the ultimate cross-section width required. Services under footpaths will be permitted only in exceptional circumstances and only with the approval of Council;
- similarly standard cross-sections may need to be revised in circumstances where trunk services are required to be accommodated within road reserves;
- developers are responsible for the provision of all roads regardless of their classification. Bridge Inn Road, as an arterial road, is the only road which is funded/credited under the MSPDCP framework;
- the surface levels within the easement must not be altered more than 200mm without prior agreements from SP AusNet;
- service roads and access roads must not parallel within the easement boundary;
- service roads that cross the easement must not come within 10 metres of a distribution pole or 25 metres of a transmission tower;
- it is noted that all subdivision applications will be referred to SP AusNet/ SPI Powernet and any conditions provided will apply at the planning permit stage; and
- the Department of Transport (DoT) indicated that the sub-arterial and collector road cross section shown on page 48 (Figure 48) does not comply with the recently published *Public Transport Guidelines for Land Use & Development*. This cross-section may need to be amended at the planning permit stage to comply with DoT requirements for bus access.

### Public Transport

The primary form of public transport likely to service the APDP area is buses. Whilst any bus route will ultimately be determined by the relevant bus company, the road network has been designed to provide for maximum flexibility in this regard. Both the designated sub-arterial and collector road links meet the minimum standards for bus service provision in terms of

travel lane widths (i.e. both cross-sections provide for two clear 3.5 metre wide travel lanes).

It is anticipated that the bus route will be focused on Bridge Inn Road and the sub-arterial, with the activity centre and active open space areas as prime destinations. However, flexibility exists to incorporate the designated collector road network as part of any route.

Developers will be required to liaise with the City of Whittlesea and the relevant bus company at the subdivision permit stage to determine the ultimate bus route to be applied. If roads are constructed that are proposed to be part of a future bus route then the developer will be required to ensure that the physical road works to accommodate bus stops are undertaken.

A key transport component of the MSP relates to the extension of the Epping rail line to Mernda, along the existing rail reserve. It is proposed that a station will be located within the future Mernda Town Centre, focused around the intersection of Plenty Road and Bridge Inn Road.

From a design and access perspective, the MSP proposes two access points to the Mernda Town Centre from Precinct 2B, one along Bridge Inn Road and the other based on the westerly extension of the southern east-west collector road through this Precinct, across the Plenty River/ Plenty Gorge Park and into the Mernda Town Centre. Once connected through the development areas to the west of the APDP, this will provide for a direct vehicular/pedestrian/cycling link to the Mernda Town Centre and its rail facilities from the APDP area and its activity centre.

### Shared Path Network

The shared path network within the APDP can be categorised into three key types: Regional Shared Path; Road Reserve Shared Paths and Open Space Link Shared Paths (Figure 57).

The Regional Shared Path is generally in accordance with the MSP. This path is identified as a development contribution item within the MSPDCP. It is envisaged that developers will construct this path within their specific landholdings and will be credited against their overall development contribution liability.

This path generally follows the alignment of the north-south linear link, the transmission easement, the drainage reserve south of the transmission easement and the sub-arterial road (connecting the drainage reserve and north-south linear link). The Road Reserve Shared Paths follow the collector and sub-arterial road network. The cross-sections for these roads contain provision for a shared path within the road reserve and are to be provided by the developer as part of the construction of these roads. Shared paths are also provided as part of the road cross-sections along the school boundary to accommodate pedestrian/bicycle access. Also it is proposed to provide a shared path connection from the local park in the south-eastern corner of the APDP, to the Plenty Gorge Park, as part of a widened local road reserve for this short section.

The Open Space Link Shared Paths relate specifically to paths contained within open space and drainage reserves. These paths are to be provided by the developer as part of development/ embellishment of these open space areas within their specific landholdings. The aim of these paths is to provide access through the open space reserve areas and to link these to the broader Regional and Road Reserve Shared Path Network.

The location and nature of the path network within the Plenty Gorge Park to the south is detailed within the Plenty Gorge Parklands Masterplan (1994 – Melbourne Parks & Waterways). The primary trail will be located between the southern development boundary of the APDP and the Plenty River offering opportunity to directly link the subdivisional shared paths with the Plenty Gorge Trail. The Plenty Gorge Parklands Masterplan is a reference document in the Whittlesea Planning Scheme and must be given due consideration, in consultation with Parks Victoria, as part of any subdivision permit application process.

The shared path network has been designed to be integrated and complementary. The design has sought to avoid unnecessary duplication between path types, particularly between the Regional and Road Reserve shared paths. For example, a shared path has been provided within the north-south open space link. It was not considered necessary in this context to effectively duplicate its provision within the abutting, parallel, sub-arterial road reserve.

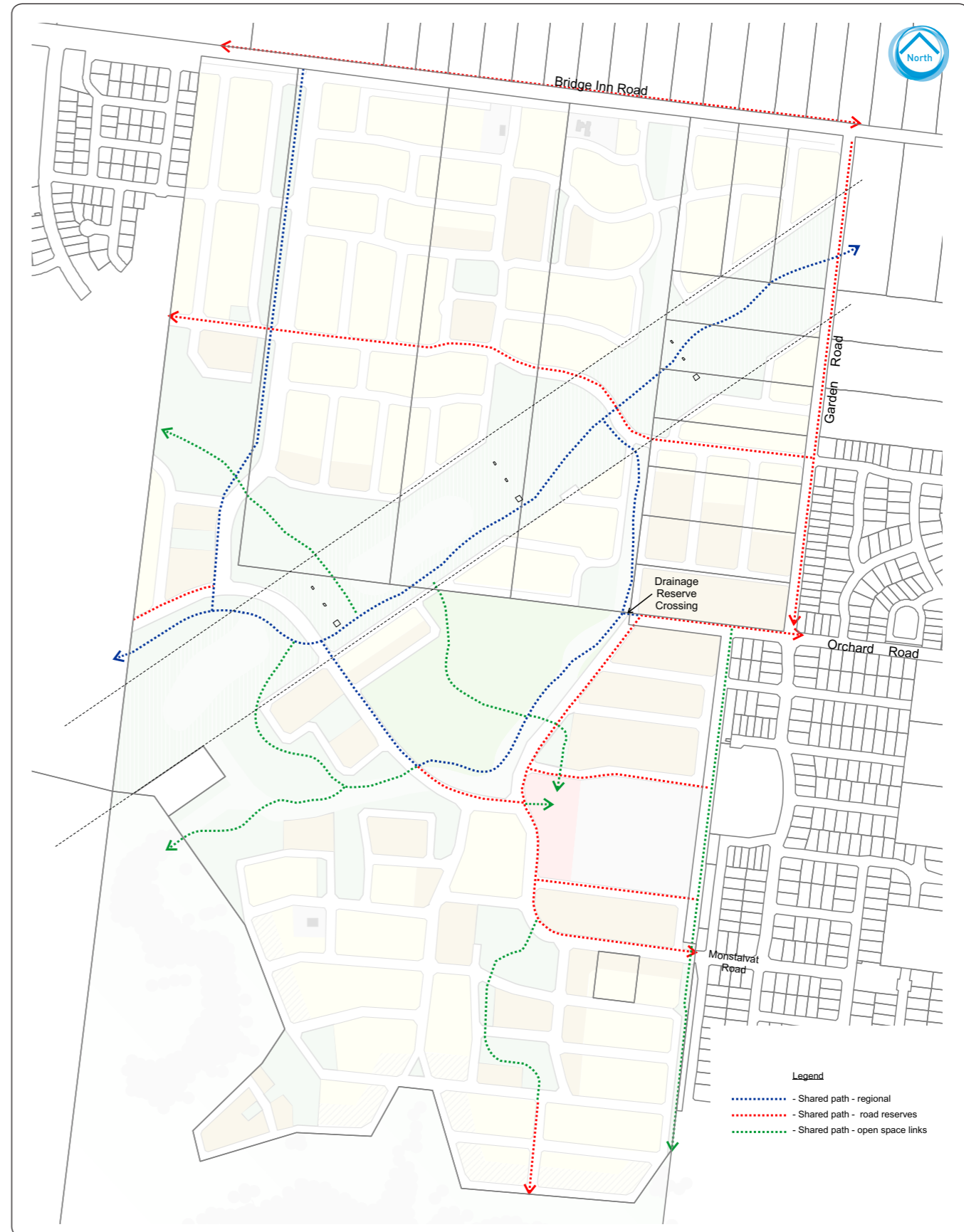
Two paths are located east of the active open space area, the Regional shared path west of the drainage line and the Road Reserve path on the eastern side of the collector road cross-section. In this case the paths have different functions: one forms part of the regional path network providing direct access to the active open space and the other, linking the road network with the activity centre.

A crossing of the drainage line will be required in the general vicinity of the extension of the Orchard Road shared path to provide direct pedestrian/cycling access to the active open space from the east. The exact location of this crossing will be influenced by the design/cross-section of the drainage line in this location.

The alignment of the Regional Shared Path within the transmission easement will be determined at the detailed subdivision stage and will be influenced to some extent by the location of any drainage infrastructure within the transmission easement. Further, the Regional Shared Path link on the western boundary of the APDP will need to be assessed at the detailed planning stage. Depending on the alignment of the collector road in this location linking into the abutting western property, a shared path may be required along the collector road and within/adjacent to the transmission easement (Regional link).

The alignment of the Open Space link shared paths shown within Figure 57 are indicative. The exact location of paths within open space will be determined at the detailed subdivision permit stage, taking account of site specific design considerations.

Figure 57 Shared Path Network





## 5.6 Neighbourhood Activity Centre

### Neighbourhood Centre

The neighbourhood centre forms the social hub for the APDP and the broader Precinct 2B area. The area comprises a community activity centre (CAC), child care centre, primary school and active open space (two soccer pitches). The CAC contains a dual pre-school, maternal and child health and meeting space and is to be co-located with a child care centre. In accordance with the MSPDCP 0.6 hectares is to be set aside for the CAC and 0.1 hectares is to be set aside for the child care centre. These facilities are to be located at least 400 metres from the transmission easement. The CAC is to be a Council controlled facility and both the land and construction is funded by the MSPDCP. The child care centre is intended to be constructed and operated by other providers such as the private sector, community groups etc.

The Primary School is a key component of the Neighbourhood Centre and will provide opportunities for community shared use of the facility. In this case, the CAC and private child care facility are specifically located abutting the School site's western boundary to allow for maximum flexibility to accommodate the potential integration of uses, services and potentially built form, across the sites in the future. Any proposal for shared use in this context will require the approval of the School (State Government) and the City of Whittlesea.

An area of 3.5 hectares has been set aside for the School site in accordance with the MSP. The provision of the School will be the responsibility of the State Government. School buildings will be encouraged to be located along the western, northern and southern boundaries to provide an urban interface to the streetscape and maximise potential built form integration with the CAC and child care site. These elements should have an 'urban' character and are located at the junction of the sub-arterial and collector roads. The MSP and APDP encourage the location of medium density housing around this precinct.

In order to emphasise the focus of community activity and dwelling density around the neighbourhood centre, the APDP includes a road network whereby the sub-arterial and collector roads "feed" directly into this centre and connect it to Bridge Inn Road and adjacent developments to the east and west. In addition, the local road network is a modified grid based design and is capable of supporting increased densities in these locations.

### Local Activity Centre

The MSP identifies the requirement for provision of a local activity centre up to a maximum of 3,000m<sup>2</sup> to accommodate local retail and commercial needs. Regardless of whether this can be ultimately achieved, the design must be flexible enough to provide for a staged provision of floorspace to accommodate growth over time. This is to be accommodated within the area identified in Figure 58 as activity centre, but also as part of the mixed use precinct to be discussed below. This ability to accommodate future retail/commercial growth will need to be demonstrated as part of any proposal for development of this area.

In accordance with the MSP, the local activity centre is co-located with the community activity centre, child care centre, primary school and active open space. The preferred physical form for development of this local activity centre is 'street-based' and of local scale, to serve the convenience shopping needs of the surrounding population.

From a design perspective the following key features need to be reflected when detailed plans are being prepared:-

- buildings must be located to provide an active address to prominent corners and street frontages, particularly the sub-arterial road;
- buildings and uses should be of a scale sympathetic to the surrounding residential, school and open space context; and
- parking should be located in a discreet location that does not feature prominently from key locations.

Figure 58 Neighbourhood Activity Centre



### Mixed Use Precinct

The mixed use precinct is located within the community heart of the APDP area (and MSP Precinct 2B more generally) opposite the activity centre and active open space (Figure 58). It has two major frontages (south and west) along the sub-arterial road. The mixed use area has the potential to accommodate a range of residential and commercial uses.

The proposed uses and built form must complement the surrounding residential context. The built form must positively address the sub-arterial road and provide a strong built form presence with parking located in discreet locations. The orientation of the site offers opportunities for uses to maximise the northern orientation opposite the open space and to form/complete a north-south main street environment, in conjunction with the activity centre uses/built form. The terminating views of the surrounding sub-arterial and collector road network provides the context for the development of high quality, landmark built form.

Any design of the mixed use precinct must take into account the potential expansion of, or need for, retail/commercial floorspace in the future. An example of this flexibility may include increased ground floor ceiling heights to accommodate conversion into commercial premises in the future.

The ultimate size of the mixed use precinct will be determined at the detailed subdivision stage. Expansion of this area beyond that size identified broadly in the APDP may be considered by Council, but would need to take into account the surrounding road network, integration with adjoining land uses and consistency with the MSP.

### Implementation – Activity Centre/ Mixed Use Precinct

It is likely that a rezoning to a more appropriate zone will be required to accommodate the mixed use nature of the precinct (e.g. retail and commercial uses) which are prohibited in the current zone. Any such amendment should be advanced in conjunction with development with an overall plan for this precinct.

The cross-section for the sub-arterial road bisecting the activity centre, mixed use precinct and active open space will need to be reviewed as part of development of a detailed concept for this precinct. Issues such as parking, landscaping, pedestrian/cycle access, widened footpaths etc., all within a main street context, need to be considered. The relationship and integration of the road cross-section, streetscape, uses and built form elements will be critical to the success of this precinct.

The development of a detailed concept/s for this precinct may require a review of the abutting road/subdivision layout at the detailed design stage to accommodate any changes.

## 5.7 Neighbourhoods, Density and Interfaces

### Neighbourhoods

The following discusses the key design elements influencing/defining the neighbourhoods comprising the APDP as illustrated in Figure 59.

#### Neighbourhood A

- This neighbourhood is surrounded by open space on three sides;
- The existing Homestead sits along the central east-west ridgeline;
- The area south of the ridgeline responds to the southern open space and Plenty Gorge Parkland and associated views;
- The area north of the ridgeline has a strong relationship to the larger northern open space preserving existing vegetation;
- This neighbourhood contains transition from medium to low density development; and
- The boulevard interface to all open space is maximised.

#### Neighbourhood B

- This neighbourhood is strongly influenced by retention of landscape features. This is defined by a connected internal open space at its heart, preserving River Red Gums, the Plenty Gorge Parklands to the south and linear open space to the east;
- The sub-arterial road forms the boundary of neighbourhood and provides connection to adjacent development;
- This neighbourhood contains transition from medium to low density development; and
- The road and shared path network respond to these open space areas through active interfaces and linkages.

#### Neighbourhood C

- It is focused on the school, community facilities, CAC and retail/mixed use area;
- It has an external relationship to the active open space as an edge and a linear open space along eastern boundary;
- Due to the concentration of activities, the precinct contains a large amount of medium density development and will have a strong built form focus; and
- The collector and sub-arterial roads define the neighbourhood boundary and provide major access points from the east into the Activity Centre.

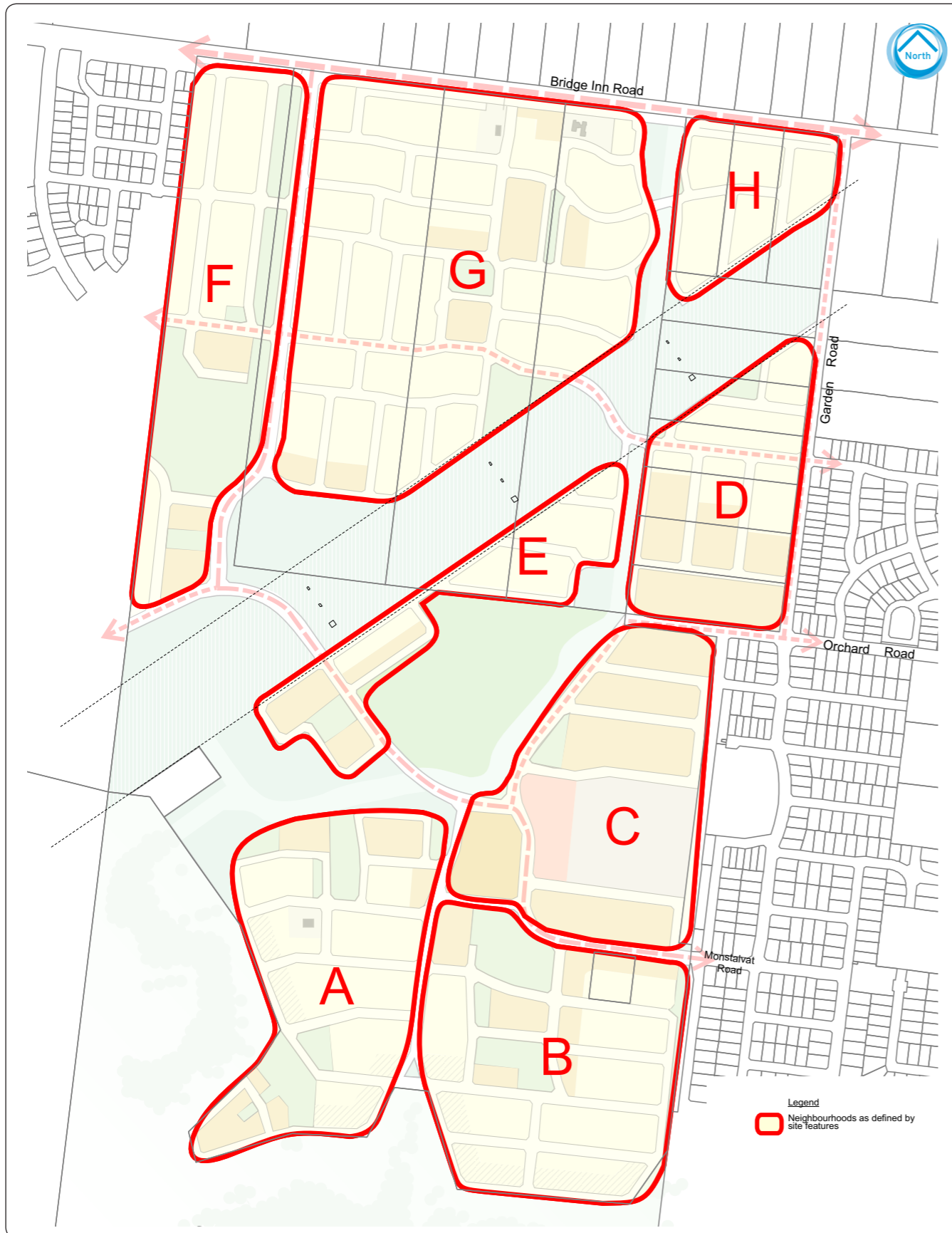
#### Neighbourhood D

- Strongest relationship of all neighbourhoods to abutting residential development to the east;
- It is separated from the broader APDP area by strong boundaries i.e. the transmission easement, drainage line and the sub-arterial road; and
- Increased medium density opportunities will differentiate it from the adjacent development to the east.

#### Neighbourhood E

- Effectively an island site wedged between the active open space, transmission easement, drainage line and conservation area;
- Key focus is recreation, the neighbourhood is suited for medium density development;
- There is a focus on maximising active interface to the transmission easement, open space and drainage reserve; and
- It is well accessed by shared path network.

Figure 59 Neighbourhood Plan



**Neighbourhood F**

- Becomes extension of the development to the west;
- Large significant area of conservation open space to the south which connects to the abutting development to the west;
- The linear open space is a dominant element which influences 'linearity' of the layout in this neighbourhood;
- Boulevard treatment for linear open space to provide for active development interface;
- The relationship of the linear open space with the sub-arterial road as one of the main entrances to the APDP area;
- The linear open space forms part of the broader open space network linking the entire eastern half of the MSP area;
- Strong River Red Gum focus to the south; and
- Service road interface to Bridge Inn Road to provide for appropriate access management and active development frontage.

**Neighbourhood G**

- North-south ridgeline visually and physically divides the site;
- East of the ridgeline – land falls away to drainage line;
- Views are available to the east and existing development;
- The focus to the west is on the linear open space and major conservation area to the south;
- The layout has responded to the high point in the south-central part of the site;
- Design interfaces have heavily influenced the layout with abuttal to transmission easement, drainage reserve, open space and Bridge Inn Road;
- Boulevard road abuttal is maximised along the transmission easement, open space and drainage reserve;
- There is a consistent service road interface to Bridge Inn Road with development fronting the service road;
- The retention of the homestead influenced the layout;
- The entrance off Bridge Inn Road to this neighbourhood is located central to the APDP area. The north-south entrance road has been designed to terminate at the high point and focus onto open space; and
- The transmission easement provides a strong southern boundary. There is only one vehicular crossing of the easement.

**Neighbourhood H**

- It is a relatively isolated neighbourhood with limited ability to connect internally; and
- The transmission easement, drainage reserve and Bridge Inn Road form very strong boundaries and provide interface conditions which are addressed with a service road, boulevard treatments and active frontage.

**Residential Density and Diversity**

Each individual landholding's residential density outcome is to an extent dependent on its location within the MSP area e.g. a landholding close to the Mernda Town Centre would have a density higher than the MSP average whereas a landholding located on the periphery of the MSP would have a lower density figure.

In terms of the overall density across the MSP area, a target of 8 lots/ha is identified in the MSP. To achieve this overall figure the MSP envisages that a diversity of allotment densities will be provided across the MSP area depending on the specific location.

This 8 lots/ha figure was determined, historically, having regard to servicing constraints (mainly sewer) and the environmental sensitivity/character of the area. Whilst no overall density figure has been determined in this Development Plan, it is likely that it will be higher than the MSP 8 lots/ha figure.

It is noted with respect to sewer servicing constraints that there is potential to accommodate a higher development density than originally envisaged within the MSP. The relevant authority, Yarra Valley Water, will ultimately need to endorse the overall density framework within the APDP.

It is not considered that an overall density increase of the nature proposed within the APDP will adversely impact on the environmental character of the area or need for additional services. The APDP has sought to provide appropriate areas for preservation of environmental features, and has focused on them as a key design driver within the layout.

The APDP provides for a diversity of allotment densities. The block structure is flexible and adaptable to cater for a range of allotment types and densities, and also to accommodate changes over time should they be required. Generally the MSP identifies higher density opportunities in proximity to the APDP activity centre, transitioning to lower density at the interface with the Plenty Gorge Park. The APDP is consistent with this approach.

While the MSP sets the broad framework with respect to the location of specific density targets/ allotment sizes, it does not preclude providing additional opportunities for allotment diversity outside these areas accounting for site specific characteristics and design opportunities.

Figure 60 identifies in greater detail the specific location of the various allotment types/densities. Whilst the majority of the medium density allotment types are focused around the activity centre, the APDP provides for additional medium density opportunities outside the core activity centre area around high amenity open space areas, tree reserves and drainage reserves. The lower density development is primarily focused around the Plenty Gorge Park interface.

All subdivision applications must be generally in accordance with the allotment density locations identified in Figure 60. Variations to this will be considered on the specific locational attributes and design merit on a case by case basis to the satisfaction of Council.

#### Integrated Housing

The APDP clearly identifies a preference for street based medium density. Notwithstanding this, it is acknowledged that some awkward shaped sites and some specific developments may lend themselves to an integrated style of development. In previous similar circumstances, problems have arisen due to the fact that whilst integrated sites have been designated at the development plan stage, attention to the design and functionality of these sites is deferred until later stages of development, when it is difficult to achieve a satisfactory outcome should site specific issues arise.

To avoid similar issues, planning permit applications for subdivision that designate integrated housing sites must include indicative detail regarding how an integrated housing site is to be developed and include the following: -

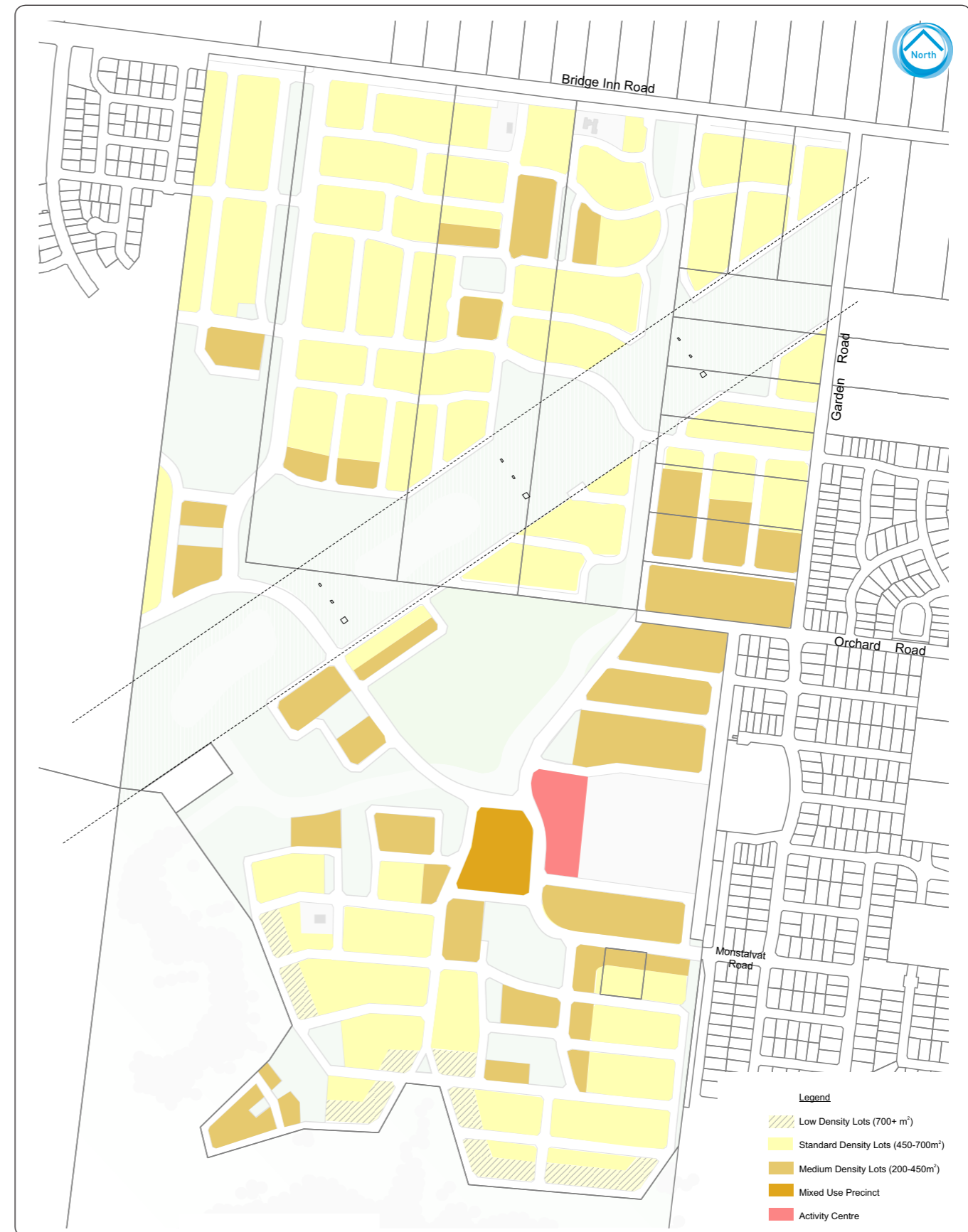
- indicative yield and dwelling layout;
- general details regarding the proposed interface treatments;
- general details of proposed visitor parking arrangements; and
- indicative access/road layout (please note that if roads are intended to become public roads, they must be designed to Council's standards).

Therefore, as a site specific design response integrated medium density development may be considered in appropriate locations in the APDP area. However, the following guidelines should apply for any such development:-

- development should seek to maximise views to, and from, the parkland;
- development should front, and have an active interface to open space;
- boulevard road treatment should be maximised;
- public road access into, and around, the site should be maximised to avoid 'privatising' the open space interface; and
- the design should be of a high architectural merit, noting the visual prominence of the specific sites where they interface with open space (including the Plenty Gorge Park).

Large integrated housing sites can present significant barriers to vehicle and pedestrian permeability. Any future proposals for such sites must be carefully considered in terms of their impact on the movement network shown in the MSP and APDP, and consequential changes to permeability and access to public facilities, such as open space, activity centre, schools etc. Locations for large integrated housing sites that are considered to compromise the intent of the MSP and APDP will not be supported.

Figure 60 Residential Density Plan



### **Interfaces**

A key component of the APDP is the treatment of the various development interfaces across the plan area.

From an in principle perspective the APDP promotes an active development frontage to all interfaces. Side and rear fence treatment will only be accepted where no other design solution exists. These situations are expected to be rare within the APDP area. The main interface areas relate to the transmission easement, open space and Bridge Inn Road and will be discussed in turn below (refer to Figure 41).

### **Transmission Easement**

The interface with the transmission easement is broken up with the co-location of open space in specific locations along its length. The balance of the interface consists of boulevard road treatments to encourage active development/frontage. Only very limited situations are identified within the APDP where this boulevard treatment is not applied. In these instances it is expected that provision will be made for connection of footpaths parallel to the easement to ensure continuity with adjoining path network along the side/rear boundaries. Properties may need to be set back to accommodate these links.

The APDP shows the inclusion of part of the parallel boulevard road reserves located within the transmission easement. Ultimate approval of this encroachment will be required from the relevant authority responsible for the easement. As a minimum, the City of Whittlesea requires the cross-section verge to be located outside the easement to be able to provide for lighting, landscaping and access to underground services clear of the transmission easement. Should the relevant authority not support this encroachment, then the entire road reserve must be located outside the transmission easement.

### **Open Space**

The plan provides for a boulevard road frontage for the vast majority of open space areas within the APDP area. This includes along the linear reserve, drainage reserve, the Plenty Gorge Park, conservation areas and local open space. Direct allotment interface with open space areas has been provided in very limited locations, generally related to small areas of development where it is impractical to provide a boulevard road treatment.

Direct allotment interface to open space is not supported in principle. There is an increasing concern that this form of development is encroaching into the public realm and serving, to some extent, to privatise the open space. Where these 'pockets' of development are located on several sides of open space areas, it can generate a disjointed and enclosed feeling to open space areas. This is of particular concern where open space is set aside for conservation purposes and not as an 'urban' style park.

From a design perspective it creates a double-sided allotment scenario which results in having to deal with the rear elevation of the allotments opposite allotments with frontage onto the same road. Without the boulevard road treatment, the location of visitor parking in proximity to these sites can also be problematic. Therefore, direct allotment abuttal to open space will not be supported in areas other than those identified within the APDP, with the boulevard road treatment being maintained as the preferred, and required, approach.

The boulevard road treatment is also provided along the tree reserve running along the eastern boundary in the southern corner of the APDP area. The road location, boulevard treatment and subdivision layout along this tree reserve, south of the sub-arterial road network, will be subject of further assessment, and possible amendment at the subdivision stage, taking into account the area required to preserve the significant existing tree windrow.

### **Bridge Inn Road**

The APDP provides for a consistent service road treatment along the Bridge Inn Road frontage. This provides access management control for Bridge Inn Road, which is a designated arterial road, and also provides the structural conditions for development to front/address Bridge Inn Road. The service road will be provided by developers in addition to the required road widening for the ultimate duplication of Bridge Inn Road and is not a creditable MSPDCP item.

An attractive, consistent development interface is critical along Bridge Inn Road given its important role as a major transport corridor, which will act as a significant view corridor for the large volume of traffic utilising this route.

There are two identified heritage elements situated along Bridge Inn Road. Detailed heritage assessments are required to determine the extent of significance of these heritage elements, including issues such as land take requirements, to determine how they can be integrated into the Bridge Inn Road interface. Whilst extension of the service road treatment is preferred, if this is not possible, then specific design controls will be required for these sites at the subdivision permit stage to ensure that they are appropriately integrated and do not adversely impact on the visual amenity of this interface.

## 5.8 Services and Drainage

### Telecommunications Conduit

In accordance with Clause 22.13 of the Whittlesea Planning Scheme – Telecommunications Conduit Policy, telecommunications conduit will be required to be provided by developers in all road reserves at the subdivision stage.

### Integrated Water Management and Water Sensitive Urban Design

The information for this section has been adapted from Sections 9.9.3 and 9.9.4 of the APDP report (2008) prepared by Coomes Consulting Group.

The integrated water management strategy at Ashley Park can be categorised into two areas:-

1. Stormwater Quantity; and
2. Stormwater Quality.

### Stormwater Quantity

The subject site lies within Melbourne Water Corporation's (MWC) Doreen Drainage Scheme. The drainage scheme identifies the drainage works required to service development of the land. A number of external catchments enter the development plan area as follows (Figure 61):-

- 75 ha north of Bridge Inn Road;
- 99 ha north of Orchard Road and east of Garden Road;
- 88 ha south of Orchard Road and east of Garden Road; and
- 42 ha along the western boundary from 760 Bridge Inn Road.

To accommodate the ultimate design flows from an urbanised catchment, a drainage reserve is proposed from Bridge Inn Road (in the north-east) to Orchard Road where it will then generally follow along the alignment of the depression. The profile of the existing open drain will be modified to contain the 1 in 100 year inundation. The modified open channel will include a low flow pilot that will meander in the base of the reserve. The remainder of the development plan has accommodated overland flows via road reserves.

An east-west ridge within the southern portion of the site results in a localised catchment which outfalls through the Plenty Gorge parkland.

The strategy adopted by Melbourne Water is to mitigate the effects of peak flows that enter the Plenty River via the implementation of soft engineering works. On-site retardation does not form an essential part of this drainage scheme.

The proposed internal drainage system to be adopted is a conventional drainage system to Council requirements (for catchments less than 60 hectares). That is the subdivisional drainage will be constructed to standards agreed with the City of Whittlesea in accordance with the minor/major drainage system philosophy. The minor drainage system will be designated to accommodate a 1 in 5 year average recurrence interval event (ARI).

### Stormwater Quality Treatment

Stormwater discharging from the site will minimise impact on downstream receiving waters. The water quality objectives will be based on the "Best Practice Stormwater Management Guidelines for Urban Stormwater". To achieve this goal will require a treatment train approach. The required treatment works to achieve this outcome have been incorporated into the Doreen Drainage Scheme.

Whilst it is noted that a number of different "Best Practice" techniques exists as a "tool box" of water sensitive urban design opportunities, the development plan is based upon the drainage scheme requirements which includes the utilisation of gross pollutant traps, sediment traps, raingardens and wetlands to meet the requirements.

The drainage scheme incorporates the provision of two constructed wetland systems (known as WL1 and WL2) within the development plan area to provide stormwater treatment. The constructed wetlands (each 1.49 ha) will be located within the electricity transmission line easement. A small bioretention basin is also located immediately downstream of WL1.

The Doreen Drainage Scheme also shows a wetland (known as WL3) to be constructed within the lower reach of the drainage reserve. However investigations have revealed that due to topographic, vegetation and existing drainage infrastructure that the construction of WL3 would not be practical. Discussions will be held with Melbourne Water and Parks Victoria regarding the stormwater treatment from the localised southern catchment. Melbourne Water and Parks Victoria must agree to any stormwater treatment within the Plenty Gorge Park (Figure 61). This water sensitive urban design treatment would be in the form of distributed linear raingardens that could be landscaped to integrate with the parkland vegetation. This water sensitive urban design treatment also has the potential to help mitigate and avoid the existing eroded gully in the south east corner of the site.

### Implementation Issues

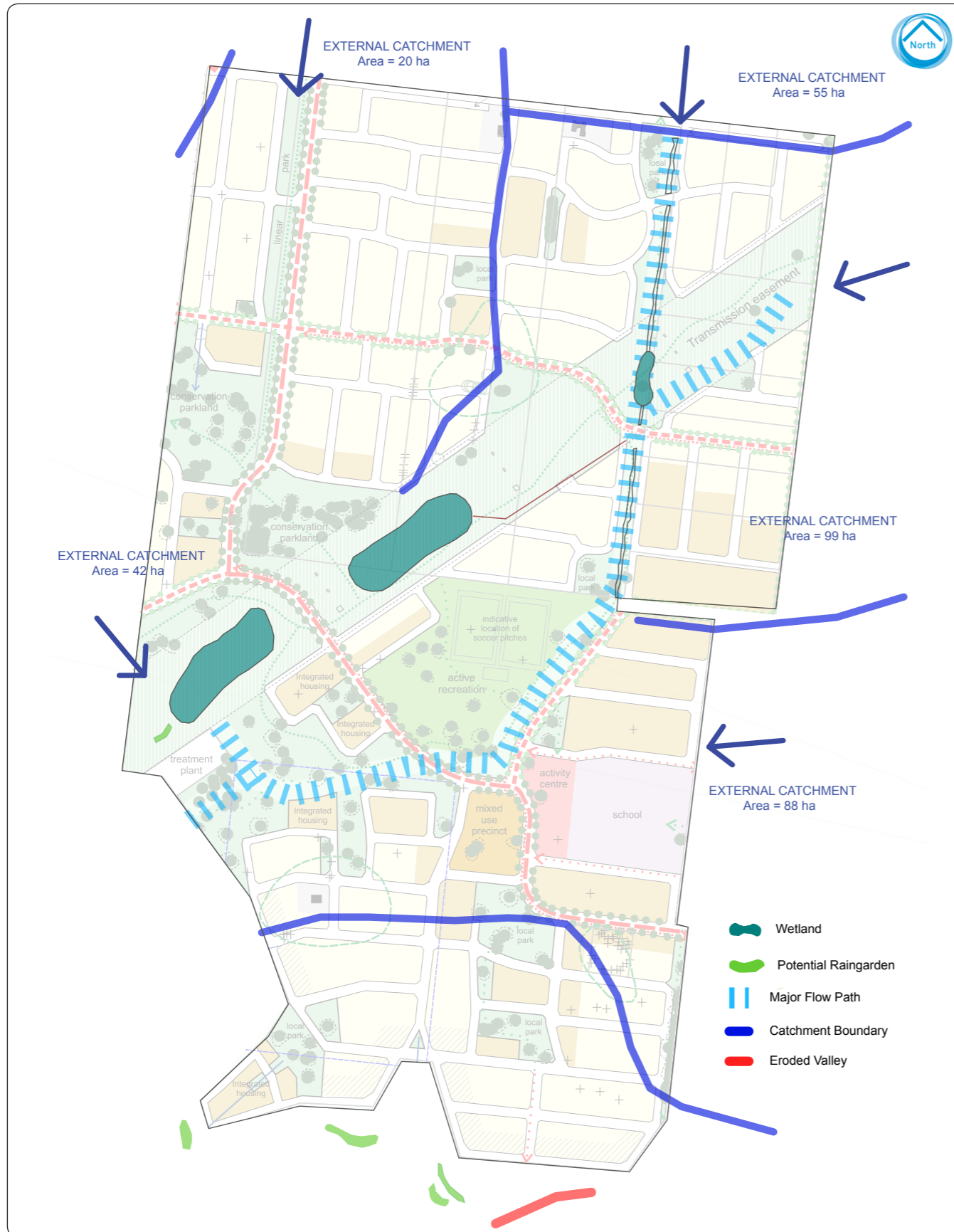
The cross-sections of the drainage line will need the approval of the City of Whittlesea. A minimum 1 in 6 batter slopes are required to maximise usability of the drainage reserve, to allow for the provision of a shared path and allow for maintenance. The ultimate width of the drainage reserve is to be determined at the subdivision stage and must accommodate this requirement. The APDP layout may need to be amended to accommodate the required cross-section.

It is also anticipated that drainage infrastructure will be located within the transmission easement. The design of these elements will need to take into account Occupational Health and Safety issues associated with access and maintenance in proximity to powerlines, particularly where any of these elements are to be maintained by the City of Whittlesea.

A stormwater drainage strategy must be submitted to the satisfaction of Melbourne Water prior to any stage of subdivision being approved which addresses:

- General site information
- Conveyance of 1 in 5 year ARI flows and drainage infrastructure
- Conveyance of 1 in 100 year ARI flows and drainage infrastructure
- Consideration of Water Sensitive Urban Design.

Figure 61 Services and Drainage Plan



# Part 6 Development Contributions



*City of Whittlesea*



# 6.0 Development Contributions

The subject site is affected by Development Contributions Plan Overlay – Schedule 6, which implements development contributions applicable to Precinct 2B of MSP as detailed in the MSPDCP. Details of specific projects to be funded, project costs and strategic justification can be found in the MSPDCP.

Development contributions obligations will be met prior to the issue of the Statement of Compliance for each stage of subdivision through either payment of the applicable levy or direct provision of specific projects. Developers will be required to enter into an agreement under Section 173 of the Planning and Environment Act detailing the program and methodology for meeting development contribution obligations.

All infrastructure not listed within the MSPDCP e.g. sub-arterial, collector and local roads (and intersections), are to be funded by the developers of the land on which those items fall or abut.

With respect to open space, it is emphasised that only open space provided in accordance with the MSP and MSPDCP will be credited. Local open space provided for tree preservation or site specific design purposes will not be credited against the MSPDCP open space contribution framework.

# Part 7 Staging



*City of Whittlesea*

# 7.0 Staging

There is no defined staging plan for the APDP area. Upon approval of the APDP each individual landholding will be able to apply for a permit for subdivision. Depending on the location of the specific landholding within the APDP area, additional works may be required to provide access to the development or to extend services. Any such additional costs required to bring forward development will be borne by the developer.

Developers will be required to provide indicative staging plans for their individual developments as a condition of the subdivision permit.

# Part 8 Planning Permit Requirements



*City of Whittlesea*

# 8.0 Planning Permit Requirements

Each planning permit application within the APDP area must demonstrate compliance with the MSP and endorsed APDP. Applications that are not considered generally in accordance with these documents and any relevant legislation applicable at the time will be refused.

All subdivision permit applications will need to be accompanied by the full range of consultant reports e.g. heritage (including Cultural Heritage Management Plan), environmental (including net gain), tree assessment, transportation, town planning etc. Where existing reports are considered current, they can be submitted as part of the application.

It is Council's preferred approach that a single planning permit application be submitted for each landholding, with detailed plans (functional layout plans) submitted on a stage by stage basis.

A single planning permit will enable ongoing and overarching issues, such as tree removal, net gain, development contributions and minor layout changes to be resolved in a holistic manner, and will enable application of conditions on a planning permit that will be valid for the life of the development.

# References

Atma Environmental (2007) Preliminary Site Assessment: Lots 1 & 2, PS 534897T (790 Bridge Inn Road) Doreen, Victoria.

Beveridge Williams & Co Pty Ltd (2008) Preliminary Contamination Assessment

City of Whittlesea (2004) Mernda Strategy Plan

City of Whittlesea (2004) Mernda Strategy Plan Development Contributions Plan

Coomes Consulting Group (2008) Ashley Park Development Plan Report 790 – 860 Bridge Inn Road, Doreen

Department of Sustainability and Environment (2005) A plan for Melbourne's growth areas

Department of Sustainability and Environment (2002, Updated 2005) Melbourne 2030

Ecology Partners (2008) Flora and Fauna Assessment and Preliminary Net Gain Analysis

Gould, M. (1991) Whittlesea Heritage Study

John Fordham Horticultural Services (2007) Tree Report

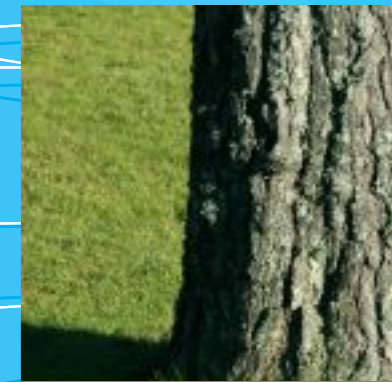
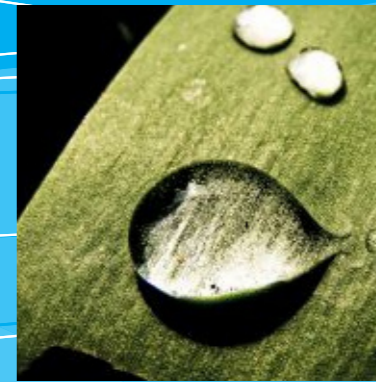
MacroPlan Australia (2007) Ashley Park – Retail Opportunity Assessment (Draft Report)

Melbourne Parks and Waterways (1994) Plenty Gorge Parklands Masterplan

TerraCulture Pty Ltd (2007) Archaeological Survey 790-830 Bridge Inn Road, Mernda



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