Cardinia Shire Council

Glismann Road Area Development Plan

Key Issues Paper

November 2025

Version history	
Report title	Glismann Road Area Development Plan – Key Issues Paper

Version	Date	Comment	Author
A	08 April 2025	Draft Key Issues Paper	UDM
B	12 November 2025	Draft Key Issues Paper	UDM

Prepared by:

Urban Design and Management

In collaboration with:

Cardinia Shire Council

Acknowledgement of Country

Cardinia Shire Council wishes to acknowledge the Bunurong and Wurundjeri peoples as the Traditional Owners of the land that makes up Cardinia Shire and pays respect to their Elders, past and present.

Cardinia Shire's name is derived from the Bunurong word 'kar-din-yarr', meaning 'look to the rising sun' or 'close to the sunrise'. Council's logo, which includes a motif of the rising sun, reflects this meaning.

Cardinia Shire Council acknowledges the right of Indigenous Australians, and indeed all Australians, to live according to their values and customs, subject to the law.

Council is committed to developing and strengthening relationships through reconciliation and supports the reconciliation process, which promotes mutual respect and understanding of the indigenous people and of all ethnic groups and their history and culture in our community.

Contents

1. Introduction 1
   - 1.1. Purpose of the Key Issues Paper 1
   - 1.2. Scope & Limitations 1
   - 1.3. Project Process 2
   - 1.4. Document Structure 3
2. Context 4
   - 2.1. Study Area 4
   - 2.2. Study Area Description 6
   - 2.3. Local Context 11
   - 2.4. Existing Conditions 13
     - 2.4.1. Topography 13
     - 2.4.2. Vegetation & Land Use 13
     - 2.4.3. Drainage 17
     - 2.4.4. Roads & Traffic 17
     - 2.4.5. Open Space 18
     - 2.4.6. Review of Lot Size and Slope in the surrounding area 19
   - 2.5. Planning Context 28
     - 2.5.1. Strategic Policy Context 28
     - 2.5.2. Planning Controls 31
     - 2.5.3. Other Documents 40
     - 2.5.4. Melbourne Strategic Assessment 41
3. Detailed Site Assessments 42
   - 3.1. Biodiversity 42
     - 3.1.1. Biodiversity Assessment 42
     - 3.1.2. 4 Glismann Road Offset Management Plan 44
   - 3.2. Landscape 44
     - 3.2.1. Landscape Assessment 44
     - 3.2.2. Landscape Management Framework 49
   - 3.3. Traffic 51
   - 3.4. Contaminated Land 55
   - 3.5. Cultural Heritage 56
   - 3.6. Drainage 57
   - 3.7. Development Contributions 58
   - 3.8. Service Infrastructure 60
     - 3.8.1. Potable Water Supply 61
     - 3.8.2. Stormwater Infrastructure and Drainage 62
     - 3.8.3. Sewage Infrastructure 65
     - 3.8.4. Electricity 66

3.8.5. Telecommunications 66
4. Summary of Key Issues relevant to the GRADP preparation 67
5. Design Response 82

Tables

Table 1 - DPO19 References 3
Table 2 - Property and Address References within the GRADP 4
Table 3 - Slope categories 13
Table 4 - Glismann Road traffic movements 18
Table 5: Peak Traffic Flow Estimates 52

Figures

Figure 1 - Glismann Road Development Plan Study Area 5
Figure 2 - Aerial photo of study area 7
Figure 3 - Context Plan 12
Figure 4 - Topography 15
Figure 5 - Site Analysis Plan 16
Figure 6 - Analysis of surrounding lot areas 21
Figure 7 - Lot Size and Slope Analysis as it relates to land surrounding the GRDP areaa 22
Figure 8 - Planning Zones 33
Figure 9 - Planning Overlays - Built Form 37
Figure 10 - Planning Overlays – Environment 38
Figure 11 - Figure 1 of DPO19 Glismann Road Development Plan 39
Figure 12 - Biodiversity 43
Figure 13: Native Vegetation Off-set Planting Area for 4 Glismann Road 44
Figure 14 - Location 16 - 2014 view (top) and 2023 view (bottom) 46
Figure 15 - Views north along Glismann Road from intersection location (2025) 46
Figure 16 - Location 17 image from Landscape Assessment (2014) – view west from Glismann Road crest 47
Figure 17 - Location 18 image from Landscape Assessment (2014) - view south from Patrick Place 47
Figure 18 - Location 19 image from Landscape Assessment (2014) - view north-west from O'Neil Recreation Reserve 48
Figure 19: -Location 23 image from Landscape Assessment (2014) - view east from rear of Beaconsfield Primary School 48
Figure 20 - Key Transport considerations 54
Figure 21 - Development Contributions Projects (Source: GRDCP, Urban Enterprise, December 2023) 59
Figure 22 - Existing Infrastructure 60
Figure 23 - Indicative alignment of drinking water supply 61

Figure 24 - Drainage Scheme map with the Glismann Road Development Plan area highlighted in yellow - source Melbourne Water website..... 62

Figure 25 - Flood Levee plan with post developed flood modelling overlaid. Source: Glismann Road Drainage Scheme Report prepared by Water Technology, May 2016..... 63

Figure 26 - Plan showing the existing Melbourne Water underground scheme drains in dark blue and proposed drainage pipes blue and dashed red lines. Source: Melbourne Water Predevelopment Advice. 64

Figure 27 – Sewer Indicative Alignment Plan (provided by SEW) 65

Figure 28 - Electrical infrastructure (provided by Ausnet) 66

Figure 29: Design Response..... 83

1. Introduction

Cardinia Shire Council is preparing a Development Plan (GRADP) for the Glismann Road area in Beaconsfield, in accordance with the requirements of Development Plan Overlay Schedule 19 (DPO19) of the Cardinia Planning Scheme. This Key Issues Paper has been prepared as a preliminary step to identify the strategic considerations, constraints, and opportunities that will inform the GRADP.

The GRADP will provide a coordinated framework for the future subdivision and development of land within the GRADP. It will guide land use, infrastructure provision, movement networks, environmental protection, and the integration of future development with the existing and emerging urban context.

1.1. Purpose of the Key Issues Paper

The purposes of the Key Issues Paper are to:

- Identify challenges and opportunities for the GRADP based off previous extensive assessments.
- Summarises stakeholder feedback (to be included post engagement meetings).
- Frames the discussion for future planning work and informs the development of the final plan.
- Helps guide decision-making by identifying constraints, risks, and opportunities early in the process.

Essentially, it sets the foundation for the GRADP by making sure all major issues are on the table before detailed planning begins.

The insights from the Key Issues Paper will be incorporated into and help facilitate the informal engagement process with the landowners, after which the Key Issues Paper will be updated to incorporate outcomes and information gathered as relevant to the objectives of the DPO19 and used to inform the preparation of the GRADP itself.

1.2. Scope & Limitations

The scope of the Key Issues Paper includes:

- Reviewing and assessing the specialist reports and other supporting documents, including the Glismann Road Development Contributions Plan and Project Sheets.
- Informing how the recommendations and mitigation measures outlined in the specialist reports and other supporting documents are to be addressed in the GRADP.
- Obtaining and reviewing information from internal and external stakeholders, including establishing a clear understanding of the following:
  - Council's infrastructure requirements.
  - The infrastructure requirements of external authorities and stakeholders concerning potable water, electricity, reticulated sewerage, drainage, gas and telecommunications infrastructure.
  - The Department of Transport concerning the GRADP's content related to the road and movement network.
- Providing a framework outlining the requirements of the GRADP to assist in the informal engagement with landowners, and is to include the following:
  - The use of clear and concise language to communicate findings and recommendations.
  - Include 'concept' plans and diagrams to enhance understanding.

The limitations of the Key Issues Paper include:

- Depending upon existing reports, some of which were now completed more than 10 years ago and may now be considered outdated. DPO19 requires updated site assessments to be provided as appropriate with a permit application to subdivide land, ensuring decisions are made on current information.

- Limited primary research, with the focus on reviewing and assessing rather than conducting new studies or research.
- Implementation of recommendations, creating a potential gap between planning and delivery.

These limitations can be addressed by:

- Completing an initial gap analysis, updating critical information where possible through available data sources, and including requirements in the GRADP for applications to subdivide land to address. Additionally, the DPO19 contains an extensive list of application requirements that assist in ensuring a comprehensive planning process is completed prior to development.
- Leveraging stakeholder engagement to confirm sources of information and provide new information where available.
- Including a clear implementation plan in both the Key Issues Paper and GRADP as necessary to identify roles and responsibilities to ensure there is ownership of tasks beyond just planning.
- The ongoing monitoring and evaluation of the delivery of the GRADP, similar to established processes for the Cardinia Planning Scheme.

1.3. Project Process

The GRADP has a complex planning history spanning over 20 years. Over this period Council has completed extensive planning investigative work and prepared several versions of a GRADP that have been presented to Council for consideration and circulated to the community and external stakeholders for comment and feedback.

This work effectively culminated in Cardinia Planning Scheme Amendment C238card, which came into operation on the 18 November 2022. C238card rezoned land in the GRADP from the Rural Living Zone (RLZ) to the Neighbourhood Residential Zone (NRZ2) and applied a Development Plan Overlay Schedule 19 (DPO19) and a Development Contributions Plan Overlay Schedule 5 (DCPO5) to the area. These controls are discussed in further detail in Section 2.5.2.

As a planning scheme amendment, submissions were sought and received from external stakeholders, many of which were considered by an independent planning panel. The panel report was overwhelmingly supportive of Council's process and C238card.

The DPO19 sets the framework for the next planning steps of the GRADP, being:

1) Preparation of a Development Plan.
2) Submission of planning permit applications for the subdivision and/or development of land by landholders.

The use of a DPO means that there are no formal mechanisms defined in the Planning and Environment Act for exhibiting a GRADP or making submissions on its preparations, as confirmed in the C238card panel report. The DPO also provides exemptions from advertising and review for planning permit applications that are generally in accordance with the approved GRADP.

The GRADP will be prepared in accordance with the following broad process:

- Project inception - Confirmation of the project brief, initial information gathering and finalisation of project plan and timeline.
- Preparation of a Key Issues Paper - Identification and analysis of key planning issues, opportunities, and constraints, as previously outlined.
- Landowner Engagement - Informal engagement with landowners to gather input and insights, culminating in the preparation of an Engagement Outcomes Report.
- Development Plan - Preparation of draft plans, supporting technical documents, and a comprehensive Development Plan document that addresses the requirements of DPO19.

1.4. Document Structure

Key sections of the Key Issues Paper are as follows:

- Section 2 – Site and Planning Context.
- Section 3 – Review of Background Reports.
- Section 4 – Key issues for consideration in the GRADP.
- Section 5 – Design Response plan identifying key themes for consideration in the GRADP.

With reference to Clause 4.0 of DP019, Table 1 summarises where these are addressed in the Key Issues Paper.

Table 1 - DP019 References

Requirement	Where addressed in the Key Issues Paper
Guide development Provide input and considerations for developing vision statement, objectives, requirements and guidelines.	Section 4.
Site analysis plan Summarises Site Context and existing Conditions	Section 2.
Slope Management Guidelines Understand significance and implications of the GRADP topography and issues for the GRADP to consider and develop.	Sections 2.4 and 4.
Staging Understand development coordination and delivery issues.	Sections 3 and 4.
Housing requirements and subdivision Understand significance and implications of the GRADP topography and vegetation and issues for the GRADP to consider.	Sections 2, 3 and 4.
Vegetation, Landscape and views Understand significance and implications of the GRADP topography and vegetation and issues for the GRADP to consider.	Sections 2, 3 and 4.
Public open space	Sections 2 and 4.
Road network and movement	Sections 2, 3 and 4.
Integrated water management and utilities Understand infrastructure, development coordination and delivery issues.	Sections 3 and 4

2. Context

This section of the Key Issues Paper provides a preliminary overview of the GRADP, including its location, existing conditions and its strategic planning context.

2.1. Study Area

The GRADP comprises approximately 21 hectares of land in Beaconsfield and is currently held in 21 individual titles under separate ownership (refer to Figure 1 and Figure 2). The area includes a mix of large residential lots with semi-rural character and is described as follows:

- **Glismann Road Lots:**
  Sixteen large rural-living style lots located along Glismann Road numbered 1-16 Glismann Road (identified as properties 1-16 on Figure 1).
- **Old Princes Highway Lots:**
  Four lots fronting the Old Princes Highway road reserve and the southern end of Glismann Road numbered 111-123 Old Princes Highway (identified as properties 17-20 on Figure 1).
- **Mahon Avenue Lot:**
  One irregularly shaped lot with a narrow frontage to Mahon Avenue, known as 11 Mahon Avenue (identified as Property 22 on Figure 1).
- **Glismann Road Reserve**
  A 20 m road reserve from Old Princes Highway to the truncation of Patrick Place (identified as Property 21 on Figure 1).

For clarity and consistency, the Property Reference number will be used throughout the GRADP to identify properties instead of the legal property address or street number as identified in Table 2.

Table 2 - Property and Address References within the GRADP[1]

Property Reference	Address	Property Reference	Address
1	2 Glismann Rd	12	9 Glismann Rd
2	4 Glismann Rd	13	7 Glismann Rd
3	6 Glismann Rd	14	5 Glismann Rd
4	8 Glismann Rd	15	3 Glismann Rd
5	10 Glismann Rd	16	1 Glismann Rd
6	12 Glismann Rd	17	111-113 Old Princes Highway
7	14 Glismann Rd	18	115-117 Old Princes Highway
8	16 Glismann Rd	19	119-121 Old Princes Highway
9	15 Glismann Rd	20	123-125 Old Princes Highway
10	13 Glismann Rd	21	Glismann Road Road Reserve
11	11 Glismann Rd	22	11 Mahon Ave

1
The Property References used in Figure 1 are consistent with those used in the Glismann Road Development Contributions Plan (Urban Enterprise) (May 2022, Amended December 2023) with the exception of Property Reference 21 which is 21-R and Property Reference 22 which is not included in the Development Contributions Plan but is included in the Development Plan. For clarity and consistency, the Property Reference number will be used throughout the GRDP to identify properties instead of the legal property address or street number.

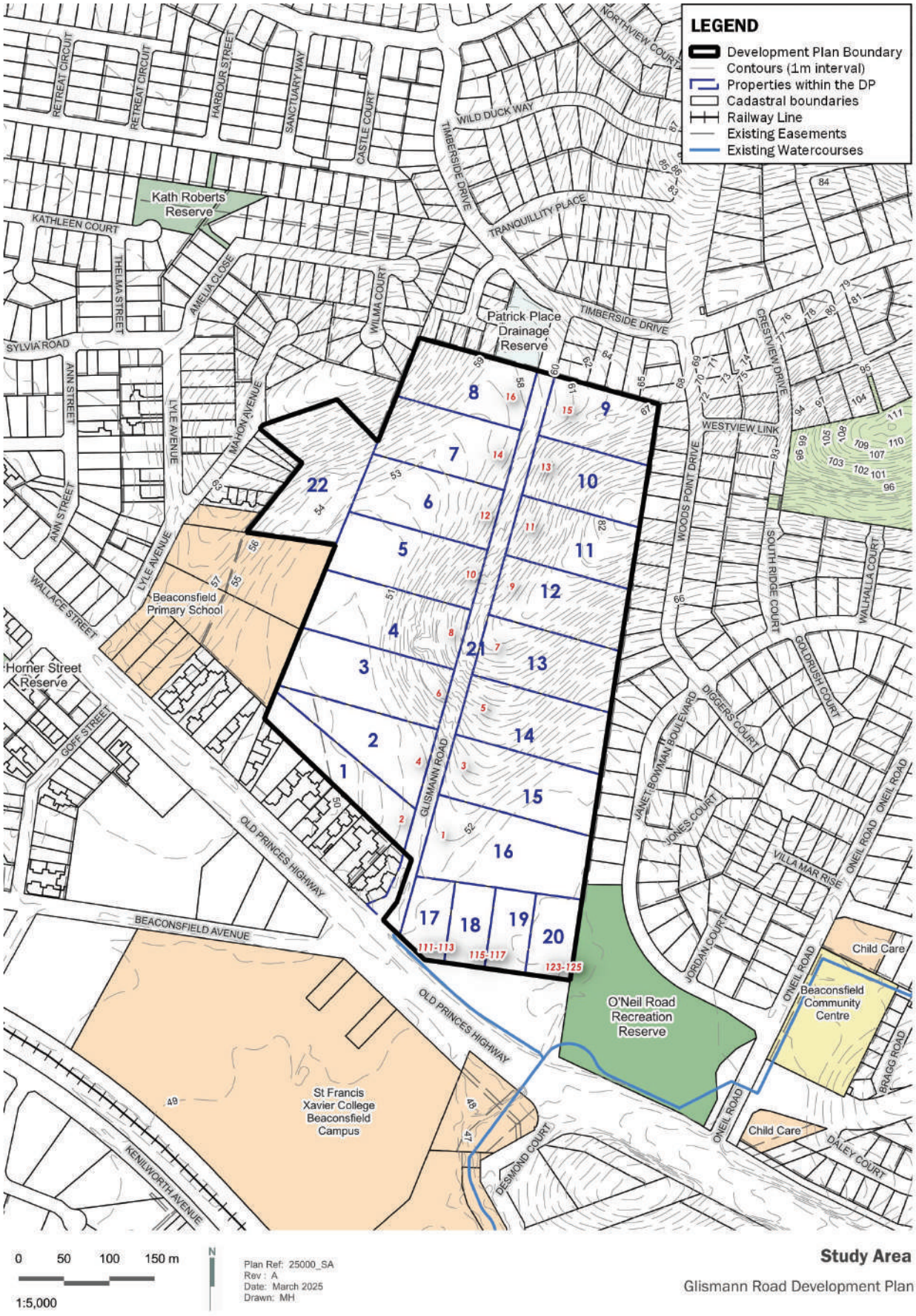


Figure 1 - Glismann Road Development Plan Study Area

2.2. Study Area Description

Glismann Road, accessed from the Old Princes Highway via a recently signalised intersection, is the only road within the GRADP. Beyond the extent of its Old Princes Highway intersection, Glismann Road is unsealed and provides access to all properties within the GRADP, with the exception of:

- Properties 18-20, which are accessed directly from the Old Princes Highway and
- 11 Mahon Avenue.

There are no formal footpaths along Glismann Road. The road reserve includes a wide grassed verge, with timber bollards and 'no through road' signage separating it from Patrick Place to the north. This reinforces its cul-de-sac nature and limits vehicular and pedestrian connectivity to surrounding residential areas.

In contrast, a wide shared-use path runs along the Old Princes Highway frontage, providing pedestrian and cyclist access to the adjacent O'Neil Recreation Reserve to the east and the Beaconsfield town centre and shops to the west.

The C238card Planning Panel report describes the GRADP as[2]:

> *Located centrally to the Beaconsfield suburb, the Glismann Road Precinct is a low density cul-de-sac, comprising twenty residential properties. The street was subdivided prior to the surrounding residential area and now exists as an anomaly within the Beaconsfield residential area. Due to the precinct's size, subdivision pattern and the existence of only one pedestrian link to the surrounding neighbourhood and single vehicle access onto the Old Princes Highway it creates a significant barrier to movement, through and across the precinct.*
>
> *The precinct has a rural character, due to its substantial (predominantly native) vegetation, generous building setbacks and unsealed nature of the road. The streetscape is dominated by large vegetation with open drains, broad grass verge and no footpaths.*

This continues to provide a largely accurate description of the current state and character of the Glismann Road GRADP (refer to Photos 1-12 for current site conditions).

The GRADP is located on the traditional lands of the *Bunurong* tribe, part of the *Kulin* nation.

[2] *C238card Corrections Plane Report 25 Jan 2022, p13*

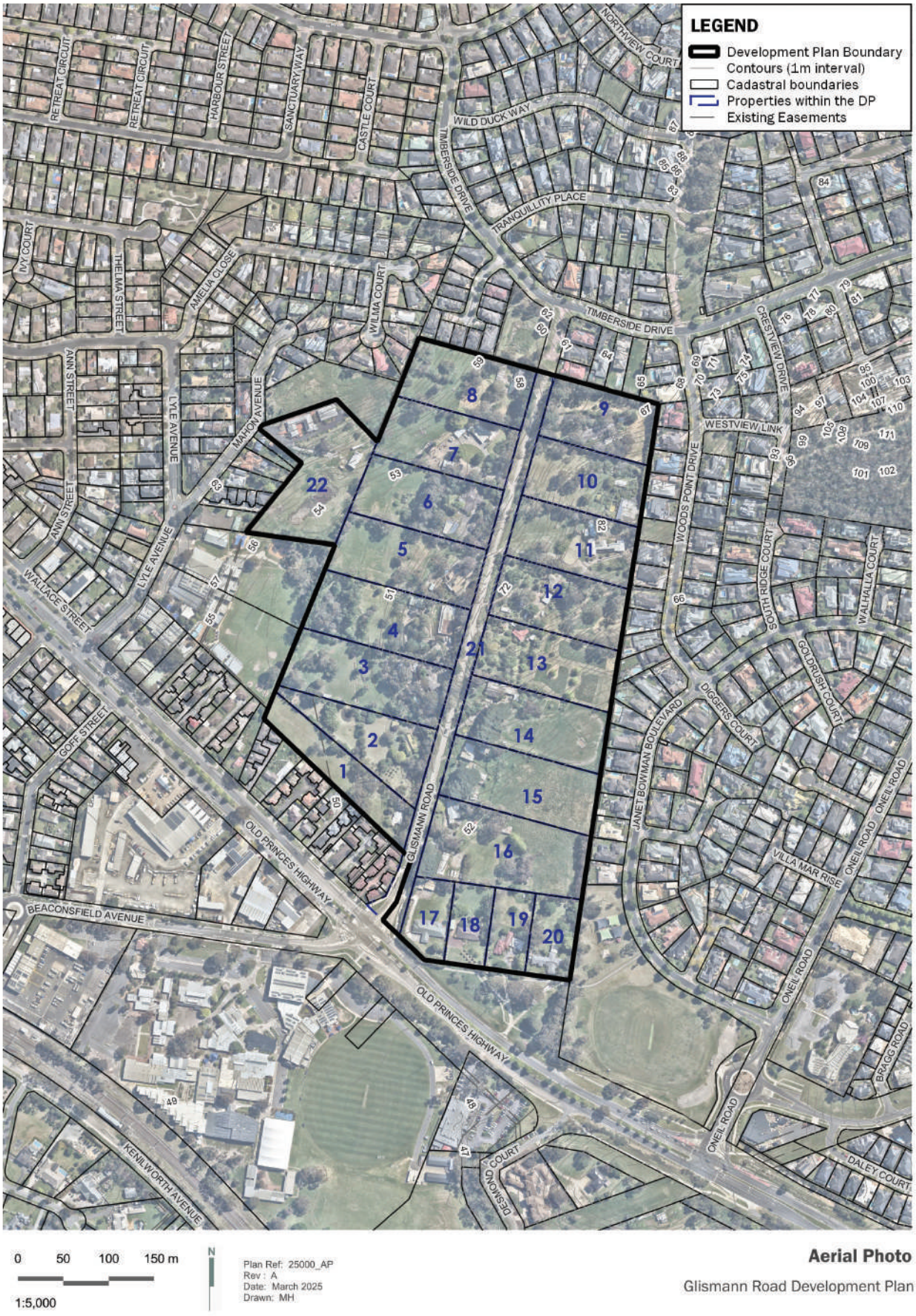


Figure 2 - Aerial photo of study area



Photo 1: Glismann Road, looking north from the intersection with Old Princes Highway



Photo 2: Glismann Road looking north, unsealed road surface, open drainage and overhead powerlines



Photo 3: Playground immediately adjacent at O'Neil Recreation Reserve



Photo 4: Recently constructed signalised intersection of Glismann Road and Old Princes Highway



Photo 5: Existing footpath along Old Princes Highway linking O'Neil Road to the Beaconsfield township



Photo 6: Looking south along Glismann Road from the crest in the road, noting the road grade





Photo 7 a and b: Existing homes to the west side of the crest, views to the west are above the rooftops



Photo 8: Some properties on the east side of the crest in Glismann Road have challenging property access



Photo 9: Many properties have substantial private landscaping that bleeds out into the road reserve





Photo 10 a and b: Properties in the northeast of the GRADP have steep driveways and substantial natural slope, with dwellings on the elevated parts of the lots to maximise views



Photo 11: Glismann Road looking south from Patrick Place



Photo 12: No through access to Patrick Place

2.3. Local Context

Beaconsfield is approximately 46 kilometres south-east of Melbourne, located between established Berwick (approximately 3 kilometres north-west) and the more recently developed and actively growing Officer (approximately 4 kilometres south-east).

Immediate Context and Adjacent Uses

The GRADP is surrounded by a range of residential, educational, recreational, and commercial land uses that form a well-established urban context. Key adjacent features, as shown on Figure 3, include:

- The GRADP is predominantly bordered by residential development, generally comprising single dwellings. Several nearby properties, particularly along Lyle Avenue and Mahon Avenue, have been redeveloped for medium density housing including dual occupancies and townhouses.
- Patrick Place lies within the northern extension of the Glismann Road reservation, although it is not physically connected to Glismann Road. It terminates in a court head (T-head), providing access to three properties. A retarding basin is located immediately west of Patrick Place, directly abutting the GRADP.
- Beaconsfield Primary School is situated immediately west of the GRADP, accessed via Lyle Avenue. Its outdoor play and sporting areas directly abut the GRADP, presenting opportunities for sensitive interface design and potential pedestrian connectivity.
- O'Neil Recreation Reserve is located immediately east of the GRADP and includes a large oval and sheltered playground. It is accessed from O'Neil Road and Janet Bowman Boulevard. The reserve provides key open space and recreational opportunities for both existing and future residents.
- The Beaconsfield Neighbourhood Centre, Kindergarten and two privately operated childcare centres lie directly east of the recreation reserve, forming a compact community focal point within walking distance of the GRADP.
- St Francis Xavier College (senior campus) occupies a large site south of the Old Princes Highway with access from Beaconsfield Avenue.
- A number of commercial properties and light industrial businesses are located on the south side of the Old Princes Highway, adjacent to the GRADP. These include automotive services, trades, and local businesses.

Wider connections and Amenities:

- The Beaconsfield shops, including supermarkets, speciality stores and cafes, are located approximately 500m west of the GRADP along the Old Princes Highway.
- The Beaconsfield train station is located a similar distance to the south-west and can be accessed via Beaconsfield Avenue, providing rail access to metropolitan Melbourne and the Gippsland region.
- Regional open space is provided along the Cardinia Creek corridor to the west and south of the GRADP, including walking trails, passive parkland, major sports recreation areas and conservation areas.
- Access to the Old Princes Highway immediately southwest of the site provides access to the M1 Old Princes Freeway, providing easy access to Officer and Pakenham to the east and Berwick and Dandenong to the west.



Figure 3 - Context Plan

2.4. Existing Conditions

2.4.1. Topography

The Topography map (Figure 4) provides a detailed understanding of the topography within the GRADP and its immediate surroundings. Contour data is captured at 1 metre intervals, highlighting changes in elevation and landform characteristics. Figure 4 provides a clear interpretation of the area's terrain and contributes to the understanding of its landscape character and form.

The Topography Plan:

- Illustrates slopes exceeding a 10% grade shown in shades of green to highlight steeper areas. The darker the green, the steeper the slope.
- Identifies locally higher hilltops located in the north-eastern portion of the GRADP, with medium elevation area extending through the centre and along the northern and north-western edges.
- Visualises the undulating nature of the Glismann Road alignment, including the location of the road's crest.
- Illustrates the steep fall of property 22 on Mahon Avenue.
- In contrast, flatter, or less steeply sloping, land is concentrated either side of the 'peaks', descending towards the Old Princes Highway and further south to Cardinia Creek.

Understanding the topography of the GRADP is fundamental to guiding appropriate subdivision and development outcomes. Figure 4 illustrates slopes of 10% or greater, which can be generally categorised as follows:

Table 3 - Slope categories

Category	Slope Gradient
Flat	Less than 5%
Moderate Slope	Between 5% and 10%
Steep	Between 10% and 15%
Very Steep	Between 15% and 20%
Extremely Steep	Greater than 20%

These slope categories are referred to throughout the GRADP.

2.4.2. Vegetation & Land Use

Vegetation coverage within the GRADP is relatively high compared to surrounding areas, reflecting its larger lot sizes and rural residential development style as demonstrated on Figure 5. A significant portion of this vegetation is exotic.

The prevailing land use within the GRADP is rural residential. All are developed with dwellings and associated outbuildings, most of which are concentrated near Glismann Road. This development pattern has resulted in the rear portions of many properties remaining largely undeveloped, contributing to the area's open and vegetated character.

Lots fronting Glismann Road span the full depth of the DPO19 boundary and are typically deeper than they are wide. In contrast, the lots fronting the Old Princes Highway are smaller but still maintain generous land sizes relative to nearby residential areas.

Notably, the lot at 11 Mahon Avenue is uniquely shaped with a narrow street frontage and a steep rear slope falling to the flatter extents of the Glismann Road properties.

The GRADP is situated on the traditional lands of the *Bunurong* people of the *Kulin* nation. According to the Cultural Heritage Management Plan (CHMP) referenced in Section 3.5, the broader activity area would have supported a rich array of resources for Aboriginal subsistence, comprising a diverse mix of riverine, mountainous, swamp and terrestrial ecosystems. Waterways and natural drainage systems were likely focal points for Aboriginal exploitation and activity.

Prior to European settlement, the ridgelines in and around the GRADP were covered in grassy woodlands, offering advantageous camping sites overlooking swamplands and rivers to the south and west.

Following European contact, the GRADP became part of the 1,920-acre 'Panty Gurn Gurn' sheep run, managed by a succession of landholders between 1841 to 1873. Aerial photographs from 1960 shows that the area had been largely cleared by this time, with little remnant vegetation remaining. Glismann Road itself had not been constructed, though its current alignment appears to have functioned as access to a single dwelling located on the ridgeline crest. The visible paddock divisions suggest that by this period the land was predominantly used for grazing or had been repeatedly ploughed.

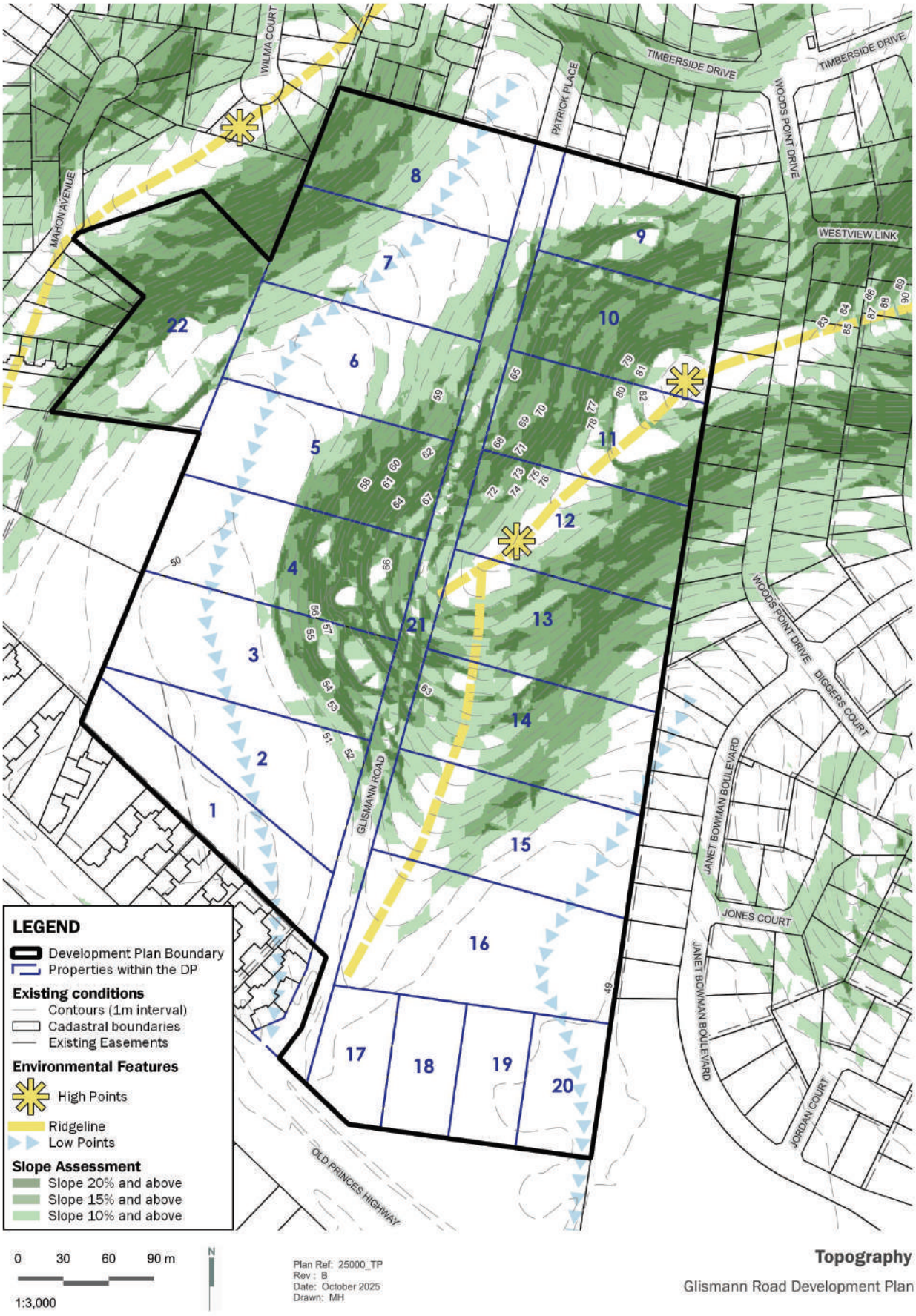


Figure 4 - Topography

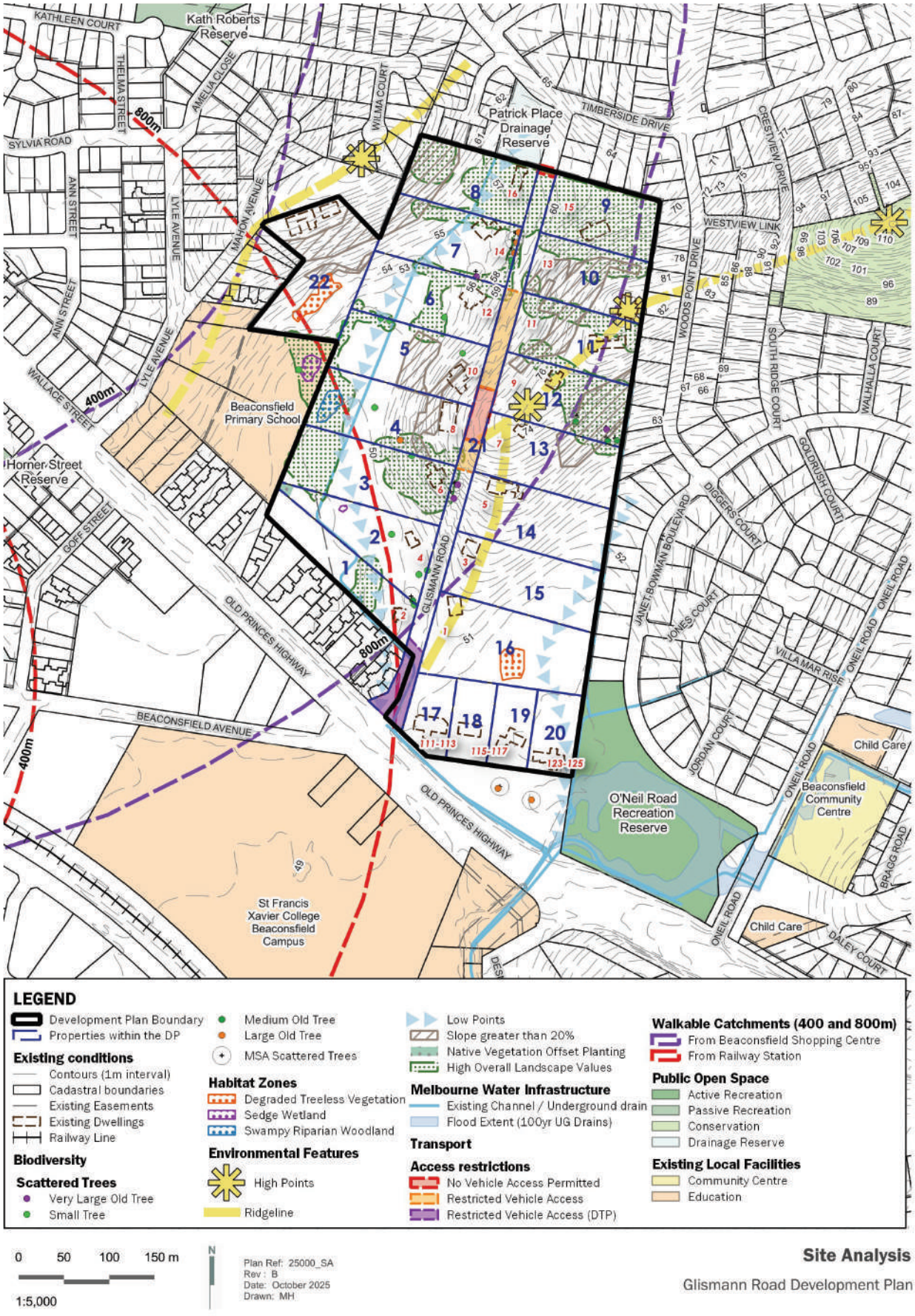


Figure 5 - Site Analysis Plan

2.4.3. Drainage

Two small waterbodies are located within the GRADP - one at Property 22 which aligns with mapped Ecological Vegetation Classes (EVCs), and the other at Property 16. These features contribute to the local hydrological character and are indicative of naturally occurring low points in the landscape.

The primary drainage infrastructure within the catchment is managed by Melbourne Water. Stormwater from the catchment is conveyed via an underground pipe network that ultimately discharges into a designated waterway south of the Old Princes Highway, before entering Cardinia Creek.

There are two main drainage alignments in the GRADP:

1) One network runs through properties on the western side of Glismann Road (properties 2-8) and continues along the Old Princes Highway frontage.
2) A second network is located along part of the eastern boundary of the GRADP.

Surface water movement in the local area generally flows in a north-east to south-west direction, while the broader regional flow trends north to south. The GRADP spans two distinct catchments which also collect runoff from adjacent developed residential areas.

Currently, flooding issues are known to affect several low-lying properties – specifically 2 and 4 Glismann Road (properties 1 and 2) and the properties on the Old Princes Highway (properties 17-20). These areas are prone to overland flooding during peak rainfall events, particularly when the Melbourne Water drainage system exceeds its capacity. In such instances, excess stormwater flows towards the Old Princes Highway towards existing culverts. Although the Highway itself is not overtopped by floodwaters, they are typically contained within the northern traffic lane.

2.4.4. Roads & Traffic

Glismann Road

Glismann Road is a local road under the management of Cardinia Shire Council. With a north-south alignment, it provides access to residential properties along its length.

The first 72 metres from the Old Princes Highway are sealed, while the remainder of the road is unsealed with a pavement width of approximately 6 metres. A prominent crest located near the midpoint of the road results in restricted sightlines in both directions, presenting a safety issue for users. The default urban speed of 50km/hr applies. Glismann Road functions as a 'dead-end' road with no through connection to Patrick Place or Timberside Drive to the north.

Advice from VicRoads (now DTP) was sought regarding appropriate distance from the intersection for access to properties through the Amendment C238card process, and the following advice was received:

"As per Section 7.2, Austroads Guide to Road Design Part 4 Intersections and Crossing (AGRD-4), the minimum -m distance a private access is to be from an intersection (within a 50km/h environment) is 80m downstream. AGRD-4 also reinforces that no accesses should be provided within the functional footprint of an intersection. The functional area of an intersection is the area beyond the physical intersection of two roads that comprises decision and manoeuvre distances on the approaches and departures, plus any required vehicle storage length. Wherever possible, this area should be protected from interference by traffic from accesses. In particular, the downstream functional distance is that required for a driver to avoid a collision with a vehicle entering the road from an access connection."[3]

[3] *Extracted from DTP letter dated 28/05/2021 which can be found in AmC238card Council's closing submission.*

Old Princes Highway

The Old Princes Highway is an arterial road managed by the Department of Transport and Planning (DTP). It runs in a south-east to north-west alignment, linking the Monash Freeway in Berwick to the west with Pakenham to the east. The highway consists of a four-lane, two-way configuration with dedicated left and right turn lanes at the signalised intersection with Glismann Road, which was upgraded in July 2021.

Traffic Volumes

As documented in the Traffic Impact Assessment Report (TIAR) (refer to Section 3.3), traffic volumes recorded on 23 February 2022 are as follows:

Table 4 - Glismann Road traffic movements

Time Period	Vehicles In	Vehicles Out	Total traffic movements
AM peak (8-9am)	6	10	16
PM school peak (3.15-4.15pm)	22	17	39
PM peak (4.30-5.30pm)	8	10	18

As no new developments have occurred within the GRADP since this data was collected, it is assumed recorded traffic volumes remain representative of current conditions.

Public Transport

The GRADP is serviced by several public transport options, providing connectivity to nearby activity centres and railway stations. These include:

- Bus route 926 - Connects Pakenham Station and Fountain Gate Shopping Centre via Lakeside and Beaconsfield. Services operate approximately hourly along Beaconsfield Avenue with the nearest bus stop located approximately 110 metres south-east of the GRADP's southern access.
- Bus route 837 - Operates between Berwick Station and Beaconsfield East via Brisbane Street and Beaconsfield Plaza Shopping Centre. This route also offers approximately hourly services with stops along Timberside Drive located approximately 120 metres north-west of the GRADP's northern access.
- Bus route 836 – Links Berwick Station to Eden Rise Shopping Centre via Bridgewater Estate. It operates hourly along Station Street and Beaconsfield Avenue, with stops at Beaconsfield Railway Station, approximately 700 metres south-east of the GRADP's southern access.
- Beaconsfield Railway Station - Located approximately 700 metres south-east of the GRADP's southern access point, the station provides additional public transport connectivity to metropolitan and regional destinations.

2.4.5. Open Space

O'Neil Recreation Reserve Masterplan

The O'Neil Recreation Reserve Masterplan is currently undergoing review by Council, and a revised masterplan is yet to be finalised. Discussions with Council's Sport Project Officer in March and April 2025 have indicated the following consideration in relation to the Masterplan's interface with the GRADP:

- Ensure there are connecting paths into the reserve from the Glismann Road GRADP, near the proposed levee and the northern part of the reserve.

- Allowance for off street parking along the connecting road into the reserve as this will support the use of the reserve.
- Provision of an inviting transition into the reserve, ensuring there is a strong relationship between private properties and the reserve. Preference for no high solid fencing abutting the reserve.

2.4.6. Review of Lot Size and Slope in the surrounding area

As part of the broader investigation into key issues affecting the GRADP, an analysis of the surrounding area's lot sizes and topography was undertaken. The purpose of this review is to understand how existing development patterns—particularly in relation to slope—have influenced road and lot design, and to identify potential implications for future built form outcomes. Key considerations include:

- Cut and fill requirements.
- Road gradients.
- House siting and design.
- Landscape character and vegetation retention.

This analysis informs the GRADP design and provides additional guidance to help ensure it aligns with the landscape objectives of DPO19.

A lot size analysis of the surrounding area (Figure 6) shows that the majority of lots to the east and north-east are in the range of 800-1000sqm in area, with some exceeding 1,000sqm on steeper terrain. In contrast, lots to the west and northwest are predominantly smaller – typically 400-800sqm - with even smaller lots where unit development has taken place, particularly along Old Princes Highway where the land is relatively flat.

It appears that the more recent subdivisions – developed primarily in the past 20 to 30 years - have occurred on the steeper land, where in the majority, the approach has been to create larger lots with wider lot frontages to manage the terrain.

Figure 7 as it relates to land surrounding the GRADP further illustrates the correlation between lot size and slope, identifying a pattern of larger lots on slope greater than 10%. The surrounding area exhibits significant areas of slope above 15% and 20% throughout, which is also seen within the GRADP, and reinforces the need for careful site-responsive design and consideration of slope-related constraints in planning future development.

DPO19 requires Slope Management Guidelines for the subdivision and/or development of land within a pre-development slope greater than 10%. The Slope Management Guidelines must:

- Include a statement of how the guidelines respond to the visual sensitivity of the area, topographical features and retention of areas with significant vegetation and other identified characteristics identified in the GRADP.
- Include Slope Management Design Principles for the matters identified in DPO19 as relevant to the specific site.
- Ensure development responds to the natural topography of the land.
- Minimise overall earthworks and disturbance to the landscape.
- Support siting and design of buildings, driveways, and infrastructure that integrates with the landform and retains landscape character.
- Deliver high quality urban design outcomes through an integrated and coordinated approach.
- Provide consistency in slope management outcomes across the GRADP while allowing for individual site responses.
- Achieve the objectives of the NRZ2, ESO2 and DPO19 while maintaining flexibility for detailed design at the planning permit stage.

Areas of slope greater than 20% must also include a Slope Management Plan. In these areas, DPO19 requires a condition that either an envelope/notice of restriction or an agreement with the Responsible Authority under section 173 of the *Planning and Environment Act 1987* on the certified plan of subdivision, and recorded on the Certificate of Title of the land be implemented for the following:

- Prevent development on areas with slope 20% and greater.
- Allow only one single dwelling on each lot with slope 20% and greater.
- Prohibit further subdivision of land with slope 20% and greater.

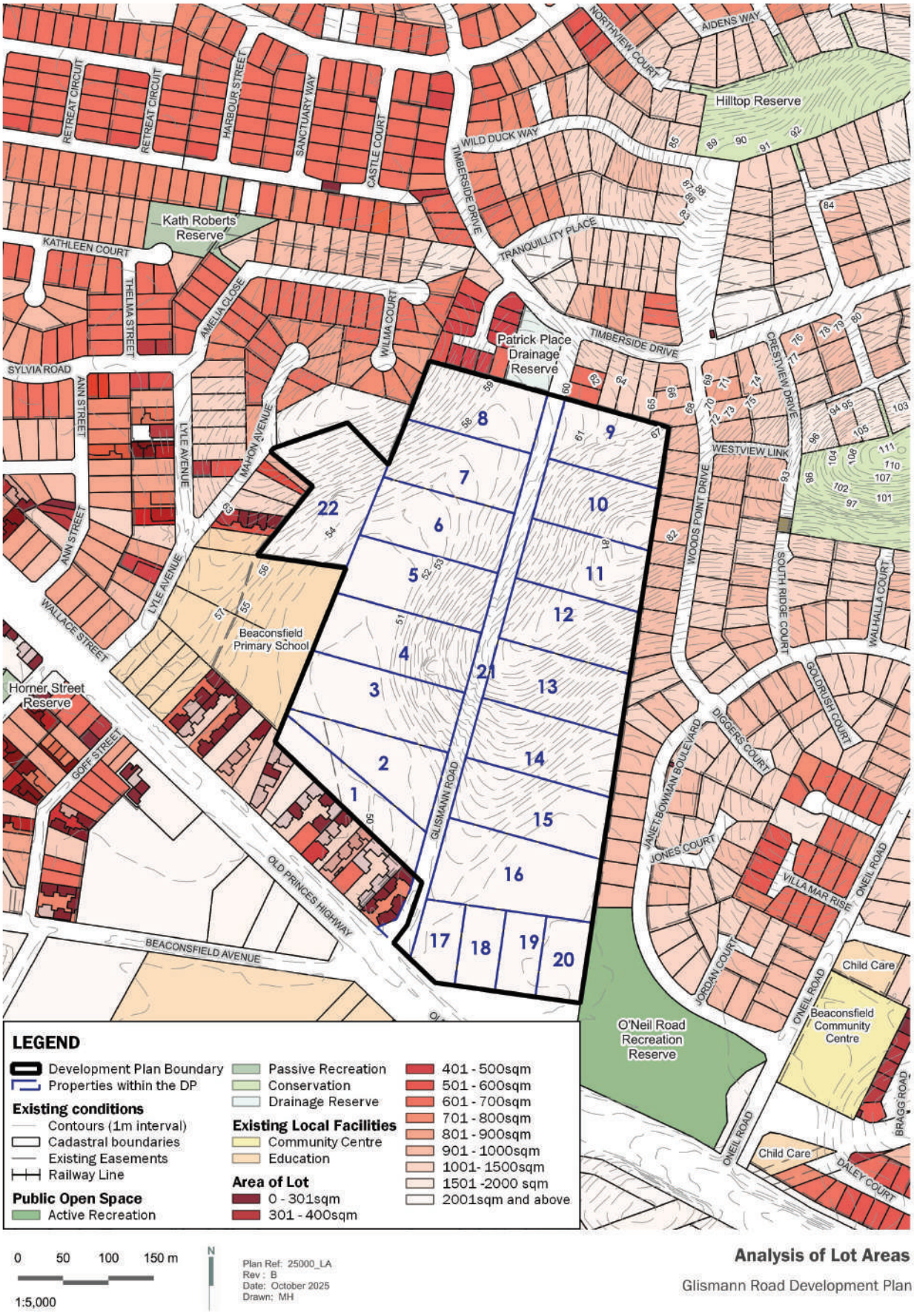


Figure 6 - Analysis of surrounding lot areas

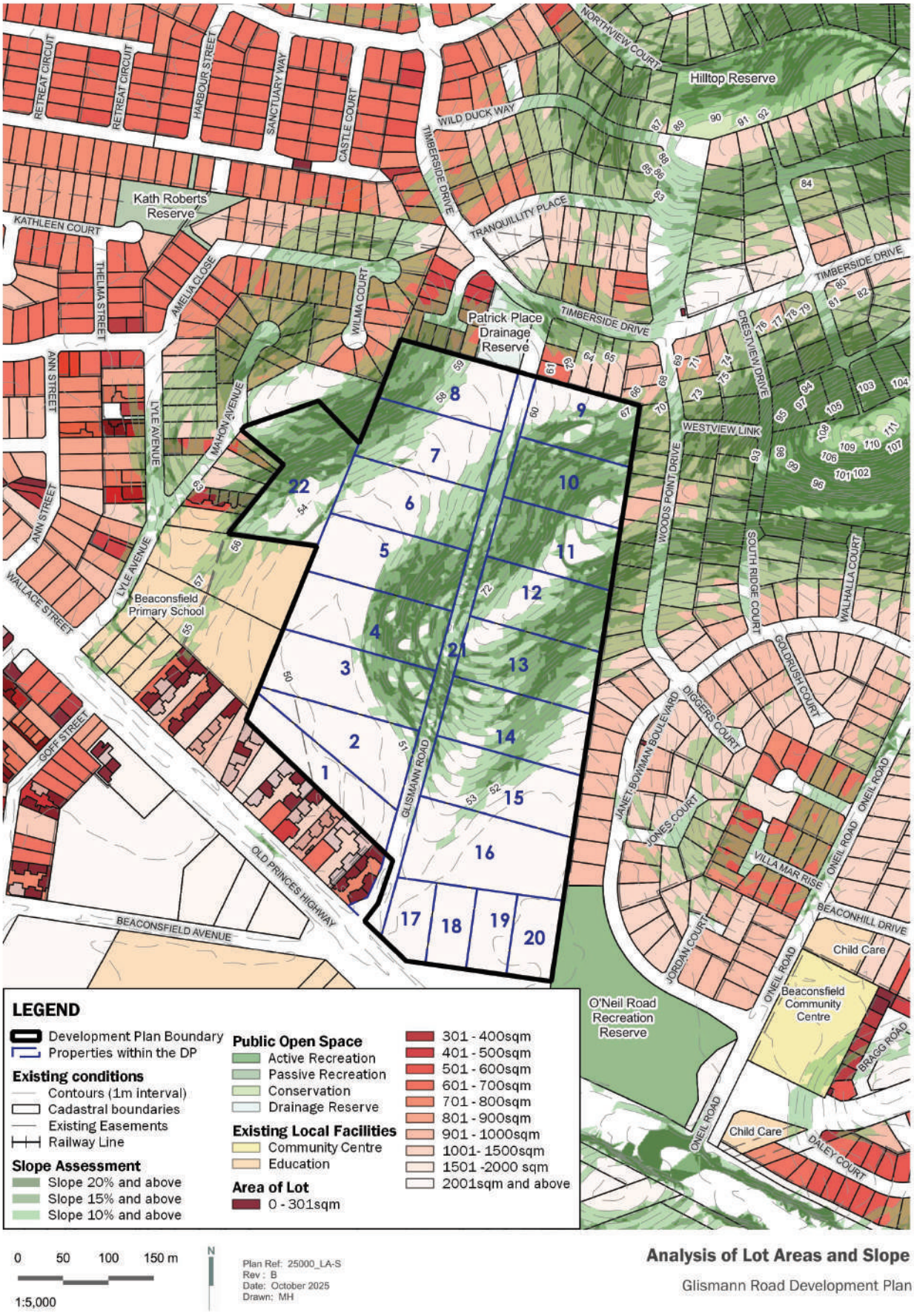


Figure 7 - Lot Size and Slope Analysis as it relates to land surrounding the GRDP areaa

Woods Point Drive – road perpendicular to slope and lots with crossfall

The areas around Woods Point Drive, Timberside Drive and surrounding streets and courts exhibit similar natural grades to that within the GRADP. Observations from this area include:

- Streets in most cases run perpendicular to the contour where possible. This results in steeper streets in some parts, which does cause challenges with footpath gradients, but in turn means that driveways and crossovers are constructed on flatter grades, and housing levels on each side of the street are similar.



Photo 13: Road perpendicular to contour, houses at similar levels across the street from each other



Photo 14: road on the high side of this lot running parallel to contour leaves dwelling significantly lower than street level

- Along Woods Point Drive, 1000sqm lots have been designed to be wider than deeper (25m x 40m), as the fall of the lot runs across the lot. This has enabled outcomes including:
  - Garages often built at a lower level to the dwelling to manage crossfall on the lot and ensure minimal driveway gradients.
  - Split level housing designs to manage site cut during construction.
  - Decent (ranging from 1-5m) setbacks from at least one side boundary which provides for both dwelling separation as well as an ability to cater for the grade within a landscaped setback.

Refer to Photo 15 to **Photo 19** for examples of the above.

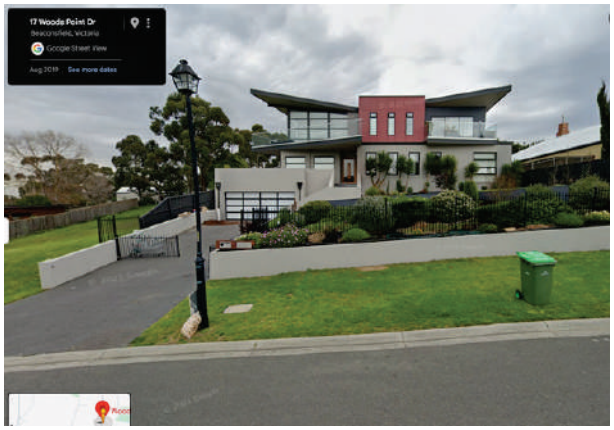


Photo 15: Garages at lower level than dwelling

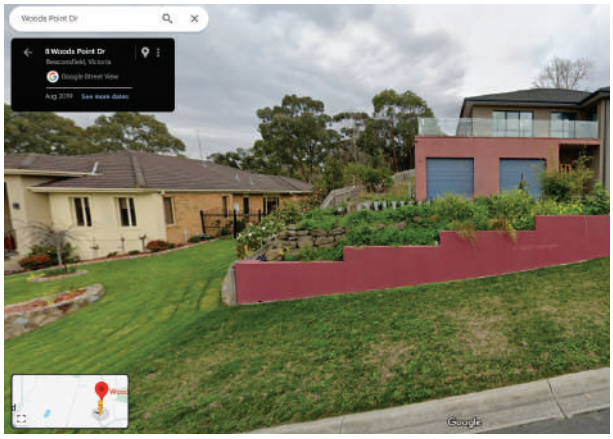


Photo 16: Substantial setback allows for space between dwellings to cater to grade





Photo 17: Split level houses (garage at lower level) and utilises landscaping to manage grade surrounding the dwelling



Photo 18: Example of a flat building pad construction on wider frontage lot, allowing for retaining walls and ample setbacks to side boundaries



Photo 19: Utilises wider frontage to have garage separated from dwelling to address site levels

Hillview Court – smaller lots with crossfall

In contrast, Hillview Court immediately north of Property 8 in the GRADP has lots in the range of 400-600sqm in area on slopes above 15% and 20%. The outcomes on these lots are:

- 0-1m side setbacks with significant retaining walls on boundaries to cater to the cross fall on each lot and creation of a flat building pad.
- Still some need to consider split level design and placing garage at a lower level.
- No space for substantial landscaping or canopy tree planting given limited setbacks to side boundaries.



Photo 20: Limited side setbacks, large side retaining walls needed to cater to crossfall



Photo 21: significant grade difference between lots

DP019 offers explicit guidance and establishes controls through both the Cl 4.0 Development Plan requirements and Cl 3.0 Permit requirements. These measures are designed to manage development on sloping land, with the intention of preventing some of the undesirable outcomes that can arise when small lots are constructed on significant slopes.

South Hidden Valley Circuit – road parallel to slope

As a further comparison, an assessment was undertaken of streets that run parallel to natural contours on steep land, and therefore result in lots that fall from front to rear or rear to front in the adjacent development. South Hidden Valley Circuit, located adjacent to the Hilltop reserve northeast of the GRADP has significant grades over 20%. This section of road initially rising with the grade and then running parallel to it for a short section.

Lots along this segment are generally around 1,500 sqm in area and were largely left in their natural state during subdivision, aside from the addition of 1–1.5 metre high stone retaining walls along the front boundaries. Not all lots have been developed, likely due to the considerable slope and the associated challenges of constructing dwellings on steep land.

For those lots that have been built on, several key issues and design responses were observed:

- Driveway and crossover grades present significant challenges where lots rise or fall steeply from the road frontage.
- Significant cut and fill is required, which, when not completed as part of site subdivisional works, can impact on the ability to build on lots. It also results in significant amount of retaining structures which can also create great landscaping opportunities.
- Grade of lots for those on high side of street impacts the setback from the street – need to allow depth for greater dwelling setbacks.
- Lots on the low side cannot access from the street as grades of driveways are too steep – need to access from side streets therefore both sides of the street are not activated.
- Dwellings on the low side of the street have no relationship with the street unless they are designed to have garages and street address at the high point of the lot, and a resultant split level home in behind.
- Side setbacks have a lesser impact on lots that fall in these directions than where lots have crossfall.



Photo 22: South Hidden Valley Circuit as it rises up the 20% grade



Photo 23: Street runs along contour - retaining walls on both sides



Photo 24: Significant retaining structures required in front setback, and challenging driveway gradients



Photo 25: Lots on low side of street can't access from street due to grade - need to access from side streets and are significantly lower than the street



Photo 26: Significant level difference between dwelling and street



Photo 27: Challenging driveway grades

Key findings

Based on this review, the following key considerations are identified as having a positive influence on the development of land with significant slopes:

1) Road Orientation and Lot Design: Roads should be designed to run either perpendicular or parallel to the contour of the land. Lot design adjoining these roads should respond to the road design to determine their width and depth.
2) Lot Size and Terrain: Smaller lots (i.e. under 1000sqm) provide limited opportunities to manage larger cut and fill when located on slopes greater than 15%, as there is restricted space to achieve adequate setbacks to mitigate slope challenges.
3) Roads Perpendicular to Slopes: When roads run perpendicular to the slope, lots should be designed with greater width to accommodate a decent side setback to at least one boundary to allow for cut and fill on the lot to be managed.
4) Roads Parallel to Slopes: For roads running parallel to the slope, careful consideration must be given to both front and rear setbacks to effectively manage slope and cut and fill, which likely will result in deeper lots.
5) Relationship Between Lots: When roads run parallel to the slope, site design should carefully address the relationship between lots and future dwellings on either side of the street. This ensures that landform and views are properly integrated into the development, contributing to better streetscape cohesion.
6) Subdivision Site Works: Undertaking specific site works as part of the subdivision process will establish the basic parameters for providing a suitable building location. Designing a building envelope or standard size building pad and creating the lot around that could assist in determining appropriate lot sizes and setbacks to manage slope in different scenarios
7) Cut and Fill: Site earthworks such as batters, cut and fill and retaining walls must be designed to have the least visual impact on the environment and landscape.

These are important considerations for the Slope Management Guidelines and Design Principles to be prepared for the GRADP. They additionally highlight the difficulty of developing areas of slope greater than 20%, reinforcing the restrictions already included in DPO19.

2.5. Planning Context

2.5.1. Strategic Policy Context

The Planning Policy Framework of the Cardinia Planning Scheme provides strategic policy and directions across key themes relevant to the GRADP.

Settlement – Clause 11

Settlement policies are to anticipate and respond to the needs of existing and future communities through provision of zoned and serviced lad for housing, employment, recreation and open space, commercial and community facilities and infrastructure. Key aims include contributing towards:

- Housing for all Victorians.
- Great places, suburbs and towns.
- Sustainable environments.
- Self-determination and caring for Country.

Sustainable growth will be provided by:

- Planning for the delivery of 2.24 million homes across Victoria by 2051.
- Promoting and capitalising on opportunities for urban renewal and infill development.
- Limiting urban sprawl and directing growth into existing settlements.
- Providing for growth in population and development of facilities and services across a regional or sub-regional network in accordance with housing targets.
- Considering the liveability of neighbourhoods and delivery of quality urban landscapes.

Planning for places focuses on:

- Encouraging a diversity of housing types at higher densities in and around Activity Centres – Housing Choice and Stations and their residential catchments.
- Improving access by walking, cycling and public transport to services and facilities.

Environmental and Landscape Values – Clause 12

Planning policy aims to protect and enhance Victoria's biodiversity by:

- Identifying important areas of biodiversity, including habitats for rare or threatened species, and strategically valuable sites.
- Avoiding adverse development impacts on key biodiversity areas.
- Supporting land use outcomes that enhance habitat for indigenous flora and fauna and strengthen ecological linkages

Native vegetation policy aims to ensure no net loss to biodiversity. Proposals involving removal, destruction or lopping of native vegetation must:

- Avoid these actions wherever possible.
- Minimise impacts where avoidance is not feasible.
- Offset any unavoidable biodiversity losses.

Strategies to protect significant landscapes focus on:

- Ensuring development respects and maintains the natural qualities of landscape areas.
- Preserving and enhancing valued natural features that contribute to environmental and cultural identity.

Urban forest policy objectives are to protect and enhance tree canopy in urban areas. Strategies include:

- Contribute to achieving an overall 30 per cent tree canopy target for urban areas by:
  - Encouraging the retention of existing canopy trees.
  - Promoting the planting of new canopy trees.

Environmental Risks and Amenity – Clause 13

Planning should promote community resilience and safety through best practice environmental and risk management and prioritise the minimisation of the impacts of natural hazards and adaptation to the impacts of climate change.

Development that contributes to cooler urban environments and reduces and minimises impacts of urban heat on human health and wellbeing are to be supported, including through the planting and maintenance of canopy trees and other vegetation, use of integrated water management measures, provision of shading of pedestrian walkways, and using permeable surfaces and low heat absorbing surface materials.

Although the GRADP is not within a Bushfire Management Overlay or designated Bushfire Prone Area, bushfire planning policy still prioritise the protection of human life. Relevant objectives include:

- Ensuring new land use and development does not increase bushfire risk to people, property or infrastructure.
- Achieving no net increase in bushfire risk through appropriate siting and mitigation measures, and wherever possible, reducing risk.

Contaminated land policy requires that such land be suitable for its intended use prior to development. Sensitive uses such as homes, schools and playgrounds must be protected from contamination risk.

Natural Resource Management – Clause 14

Planning should support the conservation and sustainable use of natural resources - including energy, water, land, stone and minerals - to support environmental quality and sustainable development.

Waterway and catchment management strategies include:

- Minimising stormwater runoff and managing flow rates from developed areas.
- Filtering sediment and waste from stormwater before it enters waterways.
- Preserving floodplains and allocating land for wetlands and retention basins.

Built Environment and Heritage – Clause 15

Planning is to recognise the role of urban design, building design, heritage and energy and resource efficiency in delivering liveable and sustainable cities, towns and neighbourhoods. Land use and development should appropriately respond to its surrounding landscape and character, valued built form and cultural context.

Urban design strategies aim to create safe, functional and enjoyable urban environments that contribute to a sense of place and identity, including development:

- Responding to local context, considering built and natural features, landscape and climate.
- Contributing to community and cultural life by improving the quality of living and working environments, facilitating accessibility and providing for inclusiveness.
- Supporting public realm amenity and safe access to walking and cycling environments and public transport.
- Provides landscaping that supports the amenity, attractiveness and safety of the public realm.

Building design strategies seek to ensure that buildings:

- Respect and enhance local landmarks, views and vistas.
- Retain and integrate existing vegetation.
- Include landscaping that enhances built form, supports cooling and greening, and reflects site context.
- Support water efficiency and reduce stormwater discharge through on-site retention, infiltration and reuse.

Subdivision design must contribute to safe, diverse, accessible and sustainable neighbourhoods by:

- Providing varied lot sizes to support a mix of housing types.
- Enhancing habitats for native flora and fauna, and integrating nature into the urban environment.
- Delivering all-electric lots to reduce carbon emissions.

Neighbourhood planning should foster healthy and active living and community wellbeing by providing:

- Connected, safe, pleasant and attractive walking and cycling networks that support daily activity.
- Streets with direct, safe and convenient access to destinations.
- Conveniently located public spaces for active recreation and leisure.
- Accessibly located public transport stops.
- Amenities and protection to support physical activity in all weather conditions.

To protect neighbourhood character and identity, development should:

- Respect the existing urban structure and subdivision pattern.
- Preserve valued landscape and vegetation features.
- Reflect built form characteristics that reinforce local identity and community values.

Housing – Clause 16

Housing policy supports a diverse supply of housing with efficient infrastructure access.

Well-located, integrated and diverse housing that meets community needs should be facilitated by:

- Planning to accommodate housing targets – Cardinia's Established Area Target is planning for the delivery of 9,000 additional homes by 2051.
- Ensuring an appropriate quantity, quality and type of housing is provided.
- Increasing the proportion of housing in urban areas with good access to opportunities and services.
- Identifying opportunities for increased residential densities to help consolidate urban areas.
- Facilitating diverse housing that offers choice and meets changing household needs by widening housing diversity through a mix of housing types.

Deliver affordable housing in areas with good access to opportunities and services by:

- Ensuring housing supply continues to be sufficient to meet demand.
- Increasing choice in housing type, tenure and cost to meet the needs of households as they move through life cycle changes and to support diverse communities.
- Promoting good housing and urban design to minimise negative environmental impacts and keep costs down for residents and the wider community.

Transport – Clause 18

Planning must enable a safe, integrated and sustainable transport system. Policies aim to improve access to economic, cultural and social opportunities by:

- Protecting existing transport infrastructure from development impacts.
- Ensuring transport infrastructure and services are delivered in a timely manner to support growth.
- Enhancing walking and cycling links to public transport.

Movement network strategies include:

- Developing safe, direct and accessible pedestrian routes that encourage walking as a primary mode of transport.
- Accommodating low-speed, low-emission transport modes.
- Expanding the bicycle network to increase usage.
- Planning road networks that:
  - Improve road safety and user experience.
  - Enhance connections across the transport network.
  - Improve access for public transport, cyclists and pedestrians.

Infrastructure – Clause 19

Planning must ensure timely, efficient, equitable and accessible delivery of social and physical infrastructure. Infrastructure delivery is to be supported through the preparation and implementation of Development Contributions Plans.

2.5.2. Planning Controls

2.5.2.1. Planning Zones

The Planning Zones Plan (Figure 8) provides a visual representation of the existing planning zones that apply to the GRADP and its immediate surroundings.

With the exception of Property 22, all land within the GRADP is included in the Neighbourhood Residential Zone, Schedule 2 (NRZ2). Property 22 is included in the General Residential Zone, Schedule 1 (GRZ1). A summary of these zones, as provided in the Cardinia Planning Scheme, is provided below.

Figure 8:

- Highlights broader land use patterns, including the predominance of surrounding residential areas (GRZ1). This provides important context to the GRADP which retains a distinct zoning and character due to its historical land use pattern and natural landscape features, as reflected by the NRZ2 zoning.
- Identifies key surrounding features such as open space, floodways and water infrastructure adjacent to Cardinia Creek, the commercial precinct in central Beaconsfield, and nearby community facilities including Beaconsfield Primary School and the O'Neil Recreation Reserve.

Neighbourhood Residential Zone, Schedule 2 (NRZ2)

The NRZ is applied to residential areas with identified neighbourhood, heritage, environmental or landscape character values that distinguish them from other areas. The purposes of the NRZ are:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To recognise areas of predominantly single and double storey residential development.
- To manage and ensure that development respects the identified neighbourhood character, heritage, environmental or landscape characteristics.
- To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.

Key development requirements include:

- A mandatory maximum building height of 9 metres and two storeys for dwellings or residential buildings.
- A planning permit is required for subdivision.

Schedule 2 to the NRZ (NRZ2) applies specifically to the GRADP as introduced via Amendment C238card to recognise its natural topography, visual sensitivity and landscape features. Its neighbourhood character objectives are:

- To create a residential precinct that delivers high quality urban design outcomes through a variety of lot sizes which respond to the existing natural topography and landscape features of the development plan area.
- To protect and maintain the visual prominence of vegetated hilltops and hillsides when viewed from within and outside of the development plan area.
- To encourage a subdivision layout which maximises the retention of existing vegetation, minimises the overall disturbance to the terrain and ensures that buildings and structures are sited so that they do not visually dominate the landscape.
- To guide an integrated and coordinated design approach to an area with fragmented land ownerships.

No additional zone variations are specified in the schedule.

General Residential Zone, Schedule 1 (GRZ1)

Property 22 is included in the GRZ1, consistent with the surrounding land on Mahon Avenue. The GRZ is typically applied to areas where housing development of up to three storeys exists or is planned, particularly in locations with good access to services and public transport. The purposes of the GRZ are:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To encourage development that respects the neighbourhood character of the area.
- To encourage a diversity of housing types and housing growth particularly in locations offering good access to services and transport.
- To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.

Key development provisions include:

- A mandatory maximum building height of 11 metres and three storeys for dwellings or residential buildings.
- A planning permit is required for subdivision.

Schedule 1 to the GRZ applies to ‘General Residential Areas’ and does not include any additional local variations.

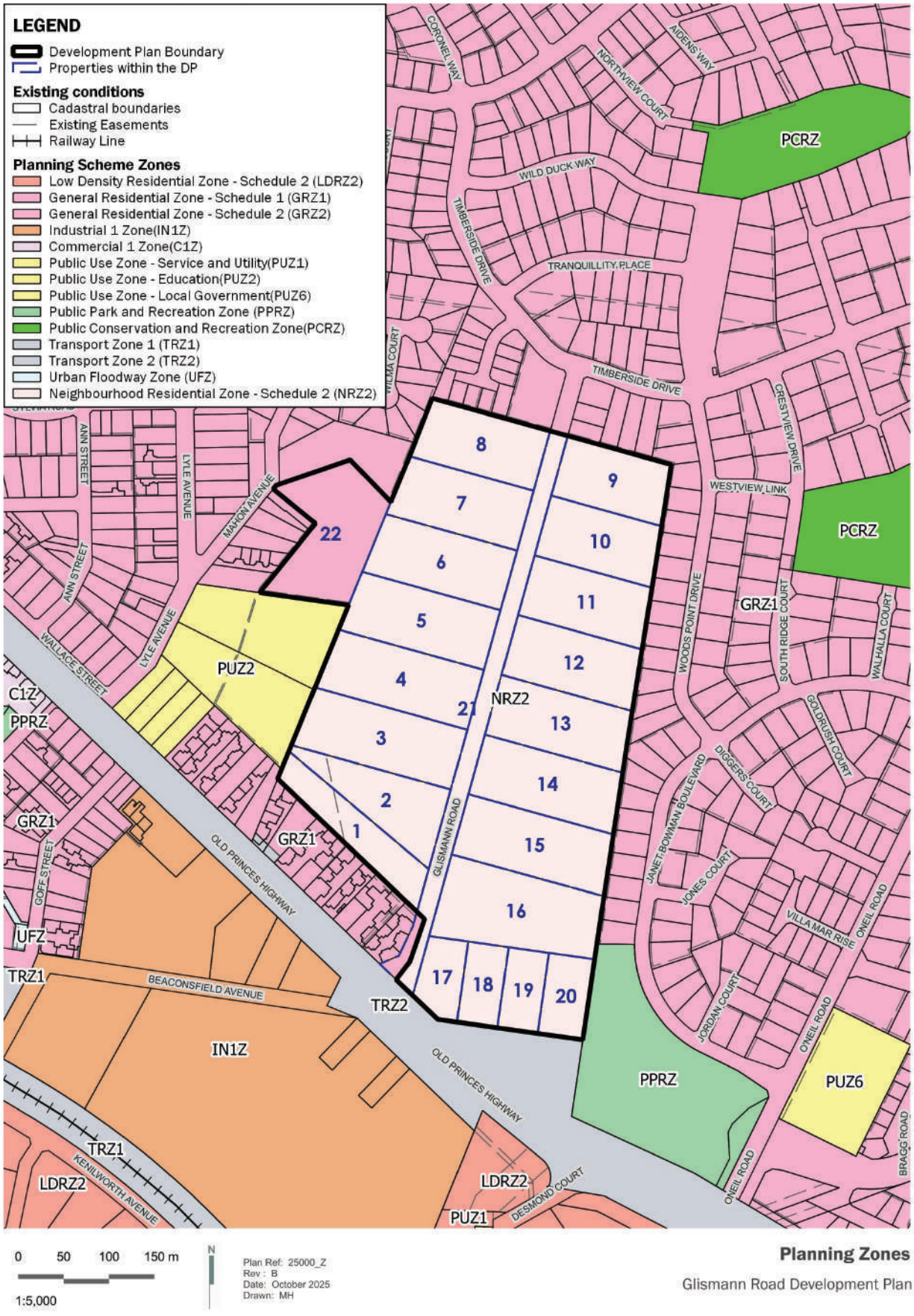


Figure 8 - Planning Zones

2.5.2.2. Planning Overlays

The Planning Overlays Plans (Figure 9 and Figure 10) provide a visual overview of existing planning overlays that apply to the GRADP and its immediate surrounds. A summary of these overlays, as provided in the Cardinia Planning Scheme, is provided below.

The Plans also illustrate important environmental and planning considerations in the broader area, including:

- The Bushfire Management Overlay located north of the GRADP.
- A suite of environmental overlays applied along the Cardinia Creek corridor, including:
  - Vegetation Protection Overlay – Schedule 1 (VPO1)
  - Flood Overlay (FO)
  - Land Subject to Inundation Overlay (LSIO)

Environmental Significance Overlay, Schedule 1 (ESO1)

The Environmental Significance Overlay (ESO1) is designed to address key issues related to the natural environment. The purposes of the ESO are:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To identify areas where the development of land may be affected by environmental constraints.
- To ensure that development is compatible with identified environmental values.

A planning permit is required to subdivide land, and depending on the specifics of the ESO1, a permit may also be required to construct buildings, carry out works, and remove, destroy or lop vegetation.

The ESO1 'Northern Hills' is typically broadly applied to land north of the Urban Growth Boundary, except for its application across the GRADP (excluding Property 22). Its statement of environmental significance is:

The hills to the northern part of the municipality (generally to the north of the Princes Highway) is an area with significant landscape and environmental values. The area is characterised by a geology of Devonian Granitic and Sulrian Sediment origin, moderate to steep slopes, and areas of remnant vegetation. These characteristics contribute to environmental values including landscape quality, water quality, and habitat of botanical and zoological significance. These characteristics are also a significant factor in terms of environmental hazards including erosion and fire risk.

The vegetation supports the ecological processes and biodiversity of this area by forming core habitat areas within a complex network of biolink wildlife corridors. Sites containing threatened flora and fauna are defined as being of botanical and zoological significance. Development within and around these sites need to be appropriately managed to ensure the long term protection, enhancement and sustainability of these ecological processes and the maintenance of biodiversity.

Map 1 to the ESO1 identifies the GRADP as being of zoological significance only.

The ESO1 environmental objectives to be achieved are:

- To protect and enhance the significant environmental and landscape values in the northern hills area including the retention and enhancement of indigenous vegetation.
- To ensure that the siting and design of buildings and works does not adversely impact on environmental values including the diverse and interesting landscape, areas of remnant vegetation, hollow bearing trees, habitat of botanical and zoological significance and water quality and quantity.
- To ensure that the siting and design of buildings and works addresses environmental hazards including slope, erosion and fire risk, the protection of view lines and maintenance of vegetation as the predominant feature of the landscape.

- To protect and enhance biolinks across the landscape and ensure that vegetation is suitable for maintaining the health of species, communities and ecological processes, including the prevention of the incremental loss of vegetation.

The ESO1 includes detailed application requirements and decision guidelines that must be considered when assessing an application. The permit requirements for constructing buildings or carrying out works are particularly relevant to the GRADP. Notable requirements include:

- Non-reflective, subdued colours for buildings to complement the environment.
- Building height restrictions: dwellings must not exceed 7 metres above natural ground level, and other buildings must not exceed 4 metres.
- Excavation and filling must not exceed 1 metre, with all disturbed areas stabilised to prevent erosion (also included in DPO19).
- Construction limitations: construction is only permitted on land with a slope of 20% or less (also included in DPO19).
- Vegetation protection: buildings and works must not remove or destroy native vegetation within areas of botanical or zoological significance, except for Sweet Pittosporum (Pittosporum undulatum).

The GRADP outcomes will need to align with the ESO1's objectives minimise the need for future permit applications.

Development Plan Overlay, Schedule 19 (DPO19)

The Development Plan Overlay (DPO19) applies where development is guided by a comprehensive plan that satisfies the responsible authority. There is no public approval process for the plan.

For residential subdivision in the NRZ, the GRADP must comply with the requirements of Clause 56 as specified in the zone. The Development Plan (GRADP) must detail:

- The land to which the plan applies.
- The proposed use and development of each part of the land.
- Any other requirements specified for the plan in a schedule to this overlay.

The GRADP may be amended to the satisfaction of the responsible authority.

DPO19 was introduced via Planning Scheme Amendment C238card and only applies to the GRADP. Its objectives are:

- To create a residential precinct that delivers high quality urban design outcomes through a variety of lot sizes which respond to the existing natural topography and landscape features of the development plan area.
- To protect and maintain the visual prominence of vegetated hilltops and hillsides when viewed from within and outside of the development plan area.
- To encourage a subdivision layout which maximises the retention of existing vegetation, minimises the overall disturbance to the terrain and ensures that buildings and structures are sited so that they do not visually dominate the landscape.
- To guide an integrated and coordinated design approach to an area with fragmented landownerships.

DPO19 includes extensive requirements and conditions for planning permit applications as outlined in Clause 3.0 as well as specific requirements for the content of this GRADP in Clause 4.0. These include:

- Site analysis plan.
- Slope management guidelines.
- Staging.
- Housing requirements and subdivision.
- Vegetation, landscape and views.
- Public open space.
- Road network and movement.
- Integrated water management and utilities.

The GRADP must be generally in accordance with Figure 1 of DPO19 (Refer to Figure 11).

Development Contributions Plan Overlay, Schedule 5 (DCPO5)

The Development Contributions Plan Overlay (DCPO5) identifies areas where a development contributions plan (DCP) is in place, outlining the levies that must be paid for development within these areas.

DCPO5 was introduced through Amendment C238card and implements the Glismann Road Development Contributions Plan, Urban Enterprise, May 2022 (amended December 2023) (refer to Section ☐).

Under the DCPO5, the following levies are payable for development within the GRADP[4]:

- Development Infrastructure Levy $458,767.93 per net developable area
- Community Infrastructure Levy $889.12 per dwelling

Payment of the Development Infrastructure Levy will be required prior to the issue of a Statement of Compliance for subdivision of land.

Payment of the Community Infrastructure Levy is a one-off payment made by landowners, usually before a building permit is issued for the construction of a new dwelling as stipulated by the Building Act 1993 and the Victorian Planning and Environment Act 1987).

[4] The contributions listed are as included in the DCPO5 and are to be adjusted following annual indexation.



Figure 9 - Planning Overlays - Built Form



Figure 10 - Planning Overlays – Environment

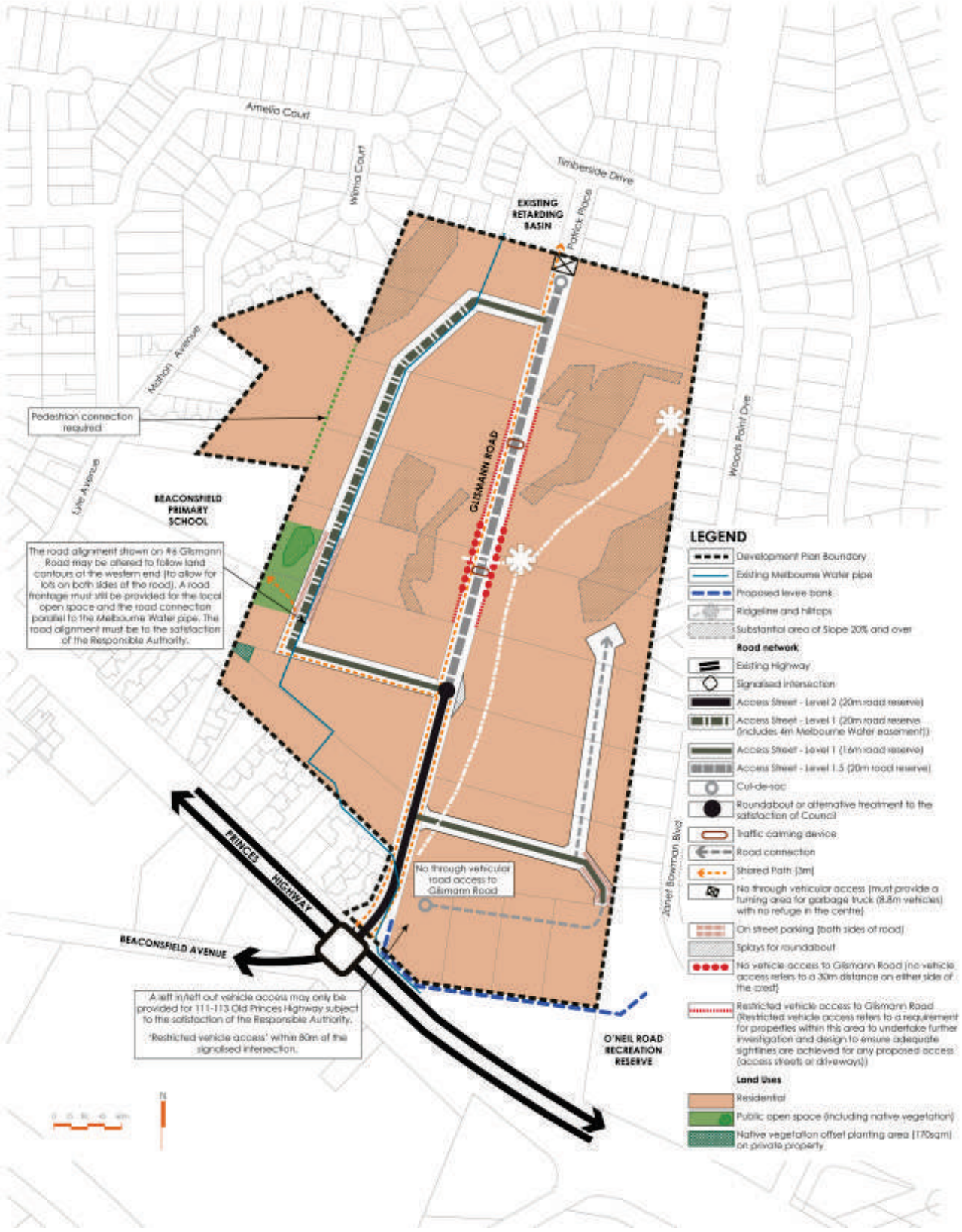


Figure 11 - Figure 1 of DPO19 Glismann Road Development Plan

2.5.3. Other Documents

2.5.3.1. Beaconsfield Structure Plan (BSP)

The BSP, along with its predecessor, the Beaconsfield Township Strategy (2001), identifies the Glismann Road area as a location suitable for residential development. The BSP was incorporated into the Cardinia Planning Scheme through Amendment C186 in 2016 but has since expired and is no longer an incorporated or background document to the Planning Scheme. It remains listed as a reference document, however to Clause 21.03-2 'Urban established area – Beaconsfield and Pakenham'.

The BSP was considered through the C238card process.

2.5.3.2. Amendment C238 panel report

Amendment C238card involved the rezoning of land within the GRADP to the NRZ1 alongside the application of the DPO19 and DCPO5. The Corrected Panel Report, issued 25 January 2022 (amending the original report from 4 January 2022), provides valuable background and analysis of key development issues relevant to the preparation of the GRADP.

Most landholders within the GRADP submitted to C238card and participated in the panel process. As the C238card process is now complete, the panel report commentary relevant to the preparation of the GRADP is outlined below. These elements form the foundational position for the GRADP.

11 Mahon Avenue (Property 22)

- A pedestrian link should be included to connect Mahon Avenue to the Glismann Road area, facilitating access to the new public open space behind Beaconsfield Primary School and improving pedestrian connectivity.
- This proposal was supported by the owner's representative.

Vegetation, landscape and views

- The increase in residential density within the **Glismann Road** area will impact the landscape, including vistas from both within and outside the locality.
- Loss of vegetation is expected, particularly in smaller lots.

Public open space

- Supports the Council's assessment of the value of the small area of public open space located near Beaconsfield Primary School as it provides a potential link between the school and the Glismann Road area.

Flooding and drainage

- Agrees that the construction of a levee to protect the four properties on the Old Princes Highway from increased flood risk is a sensible solution.

Soil contamination

- Supports a conservative approach to the residential development of five of the 21 properties identified with 'medium' potential contamination risk.

Road network and movement

- The western loop road is essential for providing an alternative access route to the GRADP north of the proposed roundabout, improving connectivity and accessibility.
- The northern section of Glismann Road is critical to the road network design, despite access and parking constraints at the hill crest.
- Topography heavily influences road design, including:
  - Road classification within the site.
  - Removal of the hill crest to improve sight lines.
  - Access and parking restrictions north of the roundabout, particularly at the hill crest.
  - Inclusion of traffic calming measures.
- Department of Transport advice supports the 'left-in, left-out' status for the eastern link road.
- A reverse-priority T-intersection may offer comparable safety to the proposed roundabout and could be pursued if construction and land costs are lower.
- Removal of 1.6 metres from the Glismann Road hill crest is necessary for safe road access. Adequate road access to existing dwellings will need to be provided at the developer's cost.
- Further consideration of pedestrian linkages within the site is needed.
- Footpaths around the proposed roundabout must remain within the road reserve, avoiding private property.
- Supports a parking lane adjacent to the park, kerbside parking along property frontages, and parking restrictions on the northern section of Glismann Road.

2.5.4. Melbourne Strategic Assessment

Land within the GRADP is included in the Melbourne Strategic Assessment (MSA) area. The MSA program is a strategic program to balance development with protecting the natural environment, governed by the MSA Act. The program provides the option for development to pay a levy (MSA levy) and meet certain requirements to offset loss of native vegetation and habitat to facilitate development. These funds collected through the levy are used to secure and protect a network of conservation reserves, areas and funding management programs.

The MSA identifies habitat for Growling Grass Frog as well as Native Vegetation and Scattered Trees within the study area as show on Figure 5. Full details of MSA Levy obligations can be found at msa.vic.gov.au.

3. Detailed Site Assessments

This section of the Key Issues Paper:

- Reviews and assesses the specialist reports and supporting documents, including the Glismann Road Development Contributions Plan and Project Sheets.
- Gathers and analyses information from internal and external stakeholders, including:
  - Council's infrastructure requirements.
  - The infrastructure requirements of external authorities and stakeholders concerning potable water, electricity, reticulated sewerage, drainage, gas and telecommunications infrastructure.
  - The Department of Transport concerning the GRADP's content related to the road and movement network.

3.1. Biodiversity

3.1.1. Biodiversity Assessment

Biodiversity Assessment for Area 1, 'Beaconsfield', Beaconsfield, Ecology Partners, October 2010

Within the GRADP, 13 of 20 properties were accessed and assessed, with relevant details provided in the summary below and shown on Figure 12.

- The study area is highly modified and dominated by exotic vegetation.
- Remnant native vegetation comprises three EVCs, including Swampy Riparian Woodland, Sedge Wetland and Grassy Woodland.
- Four broad habitat types are supported: modified woodland/remnant trees, and artificial waterbodies, planted native and introduced vegetation, and introduced pasture and crops.
- 29 scattered trees were mapped and identified, varying in size from very large to small, and conservation significance ranging from high to low.
- No nationally or state significant flora species or habitats were recorded during the assessment.
- The Assessment concluded there is a low likelihood that nationally significant River Swamp Wallaby-grass, or state significant Wetland Blowngrass and Perfoliate Pondweed occur in the area.
- The Assessment also concluded that no other national and state significant flora species are likely to occur within the study area.
- No nationally or state significant fauna species were recorded during general and detailed targeted surveys.
- Based on habitat conditions, the state significant Eastern Great Egret, Hardhead, Australasian Shoveler, Baillon's Crake and Royal Spoonbill, and regionally significant Latham's Snipe may occasionally use wetland habitats within the study area.
- There is a very low likelihood of the nationally significant Dwarf Galaxias and Growling Grass Frog, and state significant Swamp Skink occurring within the study area.

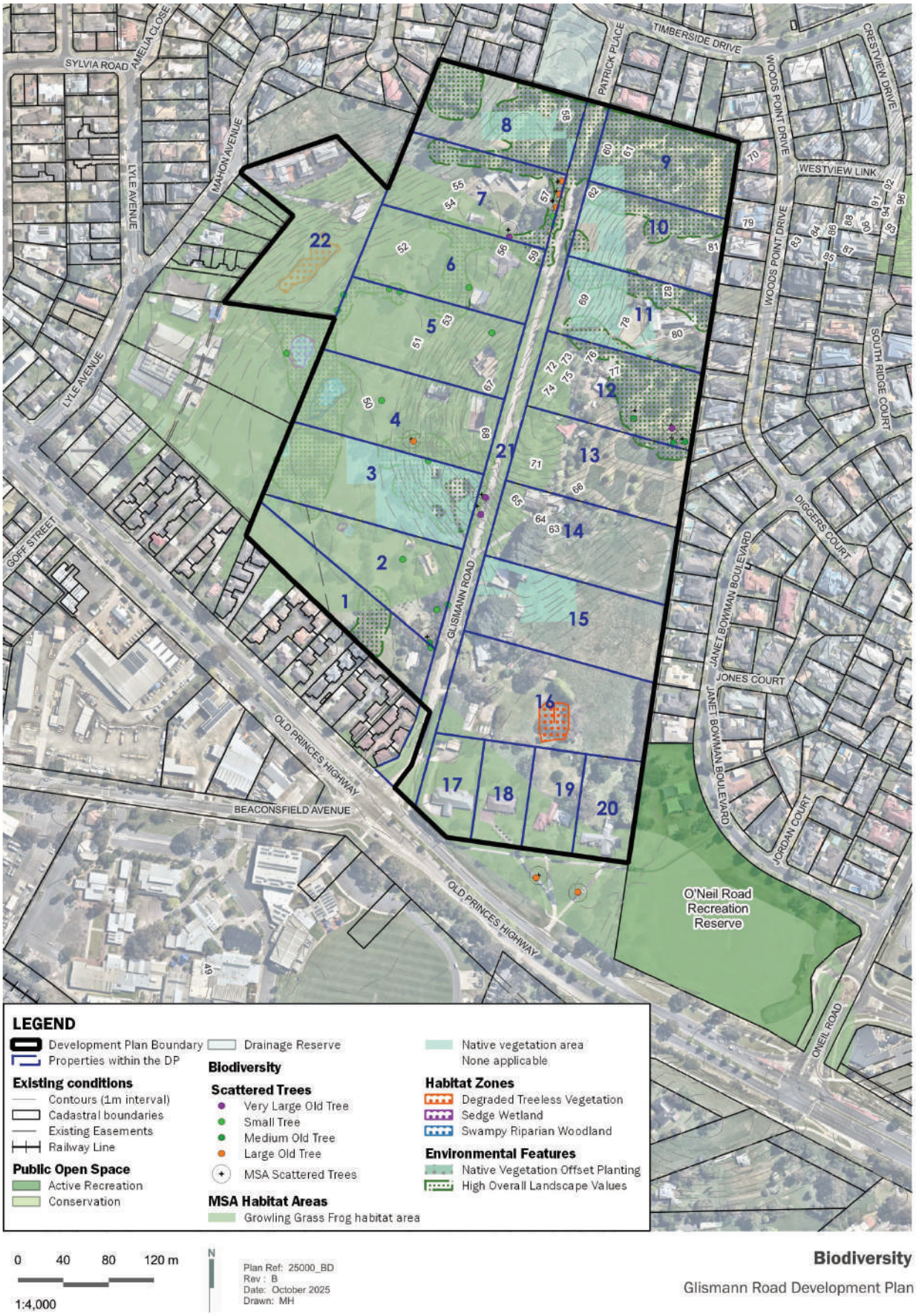


Figure 12 - Biodiversity

3.1.2. 4 Glismann Road Offset Management Plan

As part of the Panel's assessment of Planning Scheme Amendment C238card, investigative work confirmed that the offset planting commitments for 4 Glismann Road was limited to an area of 170 sq m at the western end of the property under the Offset Planting Management Plan.

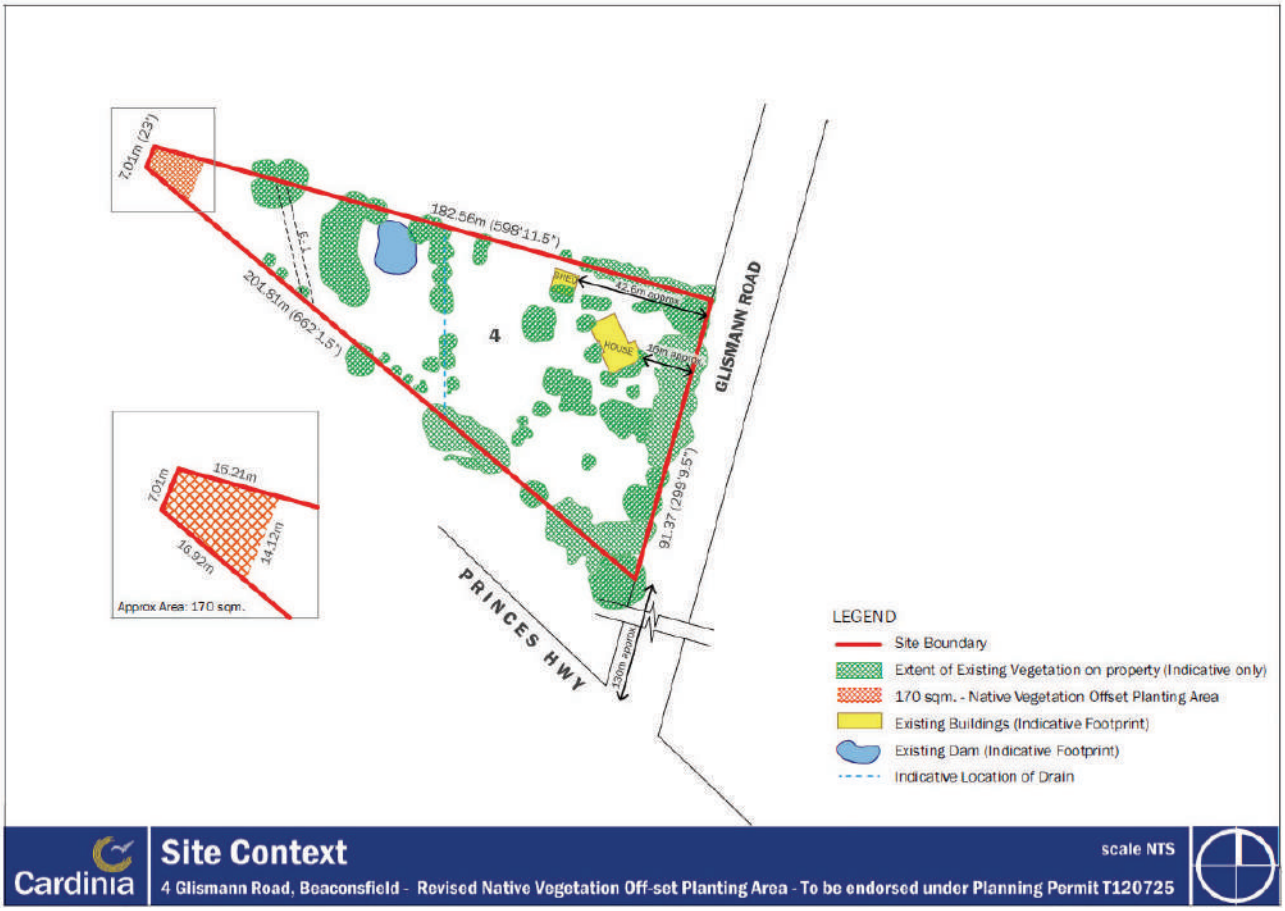


Figure 13: Native Vegetation Off-set Planting Area for 4 Glismann Road[5]

3.2. Landscape

3.2.1. Landscape Assessment

Glismann Road, Beaconsfield Landscape Assessment, Hansen Partnership, June 2014

The Landscape Assessment undertaken by Hansen Partnership in June 2014 covers a broader study area that includes, but is not limited to, the GRADP. Within the GRADP, 13 of 20 properties were accessed for assessment. The summary below focuses only on findings relevant to the GRADP.

[5] *Cardinia Shire Council, Closing submission to the Planning Panel, Cardinia Planning Scheme Amendment C238card Glismann Road, 11 October 2021 Attachment H. This was also shown on the Figure 1 of DPO19, Appendix C, Panel preferred version of the Development Plan Overlay Schedule 19 (Cardinia Planning Scheme Amendment C238card, Corrected Panel Report, 25 January 2022)*

The Assessment includes a viewshed analysis, landscape character analysis, and visual sensitivity mapping. Key findings from each are summarised below.

Viewshed analysis

The viewshed analysis identifies the visual prominence of different parts of the GRADP based on key public viewing locations. For the GRADP, the relevant viewsheds are:

- Location 16: Old Princes Highway / Glismann Road intersection.
- Location 17: Glismann Road, crest.
- Location 18: Patrick Place / Timberside Drive.
- Location 19: O'Neil Recreation Reserve.
- Location 23: Beaconsfield Primary School

The assessment concludes:

- Land adjacent to Glismann Road and the Old Princes Highway exhibits high to very high visual exposure, due to their elevated position and prominence from surrounding vantage points.
- In contrast, the lower-lying areas to the west of Glismann Road, along with the north-eastern corner of the GRADP, have low to negligible visual exposure, reflecting reduced visibility and lesser landscape sensitivity from public views.

Location 16 – Old Princes Highway / Glismann Road intersection

Since the 2014 Landscape Assessment, the construction of the signalised intersection in 2021 has substantially altered this view (Figure 14).

Current key observations include:

- The established row of exotic trees along the corner boundary of 111-113 Old Princes Highway remains intact, continuing to provide a distinctive landscape feature.
- Vegetation within the road reserve along the Old Princes Highway is largely unchanged, and continues to support several Large Old Trees, which contribute to the area's visual and environmental character.
- The western side of Glismann Road now exhibits a more suburban appearance, with a clearer and more open outlook due to the sealed road surface and associated infrastructure upgrades.
- Roadside vegetation along Glismann Road remains a dominant visual element, retaining a sense of enclosure and contributing to the area's established landscape character (Figure 15 - Views north along Glismann Road from intersection location (2025)).



Figure 14 - Location 16 - 2014 view (top) and 2023 view (bottom)



Figure 15 - Views north along Glismann Road from intersection location (2025)

Location 17 - Glismann Road, crest

The view and description provided in the 2014 Landscape Assessment (Figure 16 - Location 17 image from Landscape Assessment (2014) – view west from Glismann Road crest) remain largely unchanged, with the key landscape characteristics still evident.

Current key observations include:

- Long views along Glismann Road remain visible in both directions, maintaining the corridor's open linear perspective.
- Topographical differences between the eastern and western sides of the crest continue to highlight the challenges associated with the existing road alignment, particularly regarding restricted sightlines and road safety.
- Distant views to the west appear to be slightly diminished, primarily due to the incremental growth of vegetation since the original assessment.



Figure 16 - Location 17 image from Landscape Assessment (2014) – view west from Glismann Road crest

Location 18 - Patrick Place / Timberside Drive

- This view remains consistent with the 2014 Landscape Assessment (Figure 17 - Location 18 image from Landscape Assessment (2014) - view south from Patrick Place), showcasing the extensive vegetation canopy that defines the northern section of the study area.
- The dense vegetation and natural topography create a secluded and quiet environment, with established canopy cover continuing to be the dominant feature.



Figure 17 - Location 18 image from Landscape Assessment (2014) - view south from Patrick Place

Location 19 – O'Neil Recreation Reserve

- The view from the reserve is generally consistent with the 2014 Landscape Assessment (Figure 18 - Location 19 image from Landscape Assessment (2014) - view north-west from O'Neil Recreation Reserve), aside from minor landscaping changes.
- Lots within the GRADP remain visible beyond the open oval.
- Some cleared areas and structures located on the central ridge line within the GRADP are visible.
- Canopy vegetation continues to be the most prominent and visually consistent feature.



Princes Highway looking northwest.

Figure 18 - Location 19 image from Landscape Assessment (2014) - view north-west from O'Neil Recreation Reserve

Location 23 – Beaconsfield Primary School

- The viewshed analysis from the 2014 Landscape Assessment (Figure 19: -Location 23 image from Landscape Assessment (2014) - view east from rear of Beaconsfield Primary School) remains accurate, with no major changes observed.
- The terrain slopes steeply eastward, providing clear views of the eastern face of the western boundary ridgeline (Property 22).
- The waterbody and outbuilding remain visible within this view.
- Longer range views into the central GRADP are now mostly obscured by the established canopy vegetation along the eastern school boundary.



Beaconsfield Primary School, looking east from above the school oval.

Figure 19: -Location 23 image from Landscape Assessment (2014) - view east from rear of Beaconsfield Primary School

Landscape Character Assessment

The Landscape Character Assessment identifies four distinct precinct types within the GRADP:

1) Small acreage – bushland
2) Small acreage – native and exotic planting
3) Small acreage – exotic gardens
4) Cleared areas

Mapping of these precinct types reveals identifiable and consistent landscape patterns across the GRADP:

- Cleared areas are primarily located toward the rear of properties, creating open spaces that contrast with more vegetated frontages.
- Exotic gardens are concentrated along the eastern side of Glismann Road.
- A mix of bushland and native and exotic plantings is predominantly found on the western side of Glismann Road.
- Bushland areas are mostly located at the northern end of the GRADP, with additional presence on the western side of Glismann Road.

Landscape Values – Visual sensitivity

The Assessment's visual sensitivity analysis categorises the GRADP into a spectrum of exposure levels ranging from very high to very low, based on landscape character and visibility from surrounding areas.

Key observations include:

- A linear corridor of very high visual exposure runs north-south parallel to Glismann Road, marking this section as highly visible and sensitive to change. This area is framed by adjacent areas of high and moderate exposure.
- Pockets of very high exposure are also found along the Old Princes Highway, particularly at the intersection with Glismann Road due to the open sightlines.
- Views west of Glismann Road are more constrained due to vegetation resulting in moderate to low levels of visual exposure in these areas.
- There is a strong correlation between terrain and visual sensitivity, where areas with more defined topography and canopy vegetation register higher visual sensitivity levels. These features align with preferred character outcomes of undulating terrain and established canopy vegetation.

3.2.2. Landscape Management Framework

Glismann Road, Beaconsfield Landscape Management Framework, Hansen Partnership, August 2014

Following the Landscape Assessment, Hansen Partnership developed a Landscape Management Framework to guide future design and built form guidelines for a GRADP. The Framework outlines strategies and design principles to preserve and enhance visually sensitive and high-quality landscape areas. It includes specific recommendations supported by visual illustrations and diagrams.

Development strategies

- Visual sensitivity considerations:
  - Utilise visual sensitivity ratings established in the Landscape Assessment to guide the placement and intensity of development.
  - Avoid high density development or development entirely in 'very high' or 'high' visual sensitivity areas.
  - Direct development towards areas with 'moderate' to 'none' visual sensitivity areas.

- Building and structure siting:
  - Avoid interrupting significant view corridors, ridgelines or high points.
  - Where encroachment into viewlines is unavoidable, design structures to be discreet and visually inconspicuous.
  - Buildings and structures should:
    - Be of a low to medium scale while maintaining a small building footprint.
    - Blend sympathetically with the surrounding landscape character and terrain.
    - Maintain a rural character with suitable fencing that allow the continuation of significant views.
    - Feature subdued designs for car parking, driveways, access tracks and roads.
    - Demonstrate high quality contemporary design with a focus on environmental sustainability.
- Utility installations:
  - Avoid overtly visible, large-scale utility installations.
  - Encourage lower-scale utilities, preferably sited underground to protect landscape features, particularly established vegetation.
- Connectivity and linkages:
  - Enhance connections to nearby facilities and amenities, including roads, bus stops, public open spaces, new developments, schools, central Beaconsfield and Beaconsfield train station.
  - Provide pedestrian and bicycle paths, considering safety challenges posed by the area's undulating terrain.
  - Ensure emergency vehicle access from Glismann Road through to Patrick Place.
  - Design open spaces to capitalise on significant views, integrating scenic vistas into the public realm.

Vegetation Management Strategies

- Vegetation as a landscape feature:
  - Protect and enhance significant vegetation, particularly along roadsides where it references historic land uses and where well-established native vegetation is present in groups.
  - Support ongoing maintenance and strengthening of vegetation cover, introducing locally appropriate native species and non-invasive exotic species where applicable.
- Incorporation of vegetation:
  - Integrate significant vegetation into proposed lots, road reserves or open space areas where possible.
  - Design open spaces to reflect the diversity of landscape character precincts, creating visually interesting and varied public open spaces.
- Where viable, retain historic exotic windbreaks as a tangible connection to the area's agricultural past.
- Integrate drainage infrastructure (i.e. retarding basins, drainage lines) into the open space network, enhancing public accessibility and landscape functionality.
- Identify and remove invasive environmental weeds as listed in the Cardinia Shire Council: Weed Identification Guide.

Design and Built Form

The Framework provides detailed design and built form guidelines to guide future development across six key design categories:

1) Vegetation and landscaping
2) Views and vistas
3) Buildings and structures: siting
4) Buildings and structures: design
5) Property entrances, front boundary fencing and gates
6) Car parking, formed driveways and roads.

3.3. Traffic

Glismann Road Residential Development, Beaconsfield – Traffic Impact Assessment Report (TIAR), Trafficworks, 4 May 2022

The Traffic Impact Assessment Report (TIAR) prepared by Trafficworks assesses the traffic implications of the GRADP, based on an indicative yield of approximately 250 lots. Existing road conditions and traffic volumes for Glismann Road and the Old Princes Highway are described in Section 2.4.4 of this paper.

The TIAR establishes the following base positions for the GRADP:

- Primary vehicular access will be via the existing signalised intersection at the Old Princes Highway.
- No vehicular access will be allowed to Patrick Place / Timberside Drive to the north.
- The Victorian Planning Authority design criteria should be used as a base for the detailed design of the internal road network. Recommended road designs include:
  - Access Street (Level 2) – for 2,000 – 3,000 vehicles per day (vpd), supporting low speed, pedestrian friendly environmental.
  - Access Street (Level 1) – for 1,000 - 2,000 vpd, offering similar benefits with a lower traffic volume.
  - Access Place – for 300 – 1,000 vpd, prioritising pedestrian access.
  - Access Lane - side or rear access for up to 300 vpd, suitable for secondary street frontages.

With regards to Figure 1 in DPO19 (refer to Figure 11), the TIAR establishes the following base position for the GRADP as shown on Figure 20:

Glismann Road design principles

- Glismann Road will be reconstructed as an Access Street running north-south from the Old Princes Highway to a court bowl at its northern extent. No vehicular connection will be provided to Patrick Place.
- The design includes:
  - A shared path on one side and a footpath on the other within the 20 metre wide road reserve.
  - Retaining walls where required due to site topography.
  - Two cross-sections split by a roundabout or reverse priority T-intersection:
    - Southern section – Access Street (Level 2).
    - Northern section – modified Access Street (referred to in TIAR as Level 1.5) with no on-street car parking to reduce the carriageway footprint and the height of required retaining walls.
- Land acquisition is not anticipated except where required for the roundabout.

Internal road network principles

- West of Glismann Road: An Access Street (Level 1) along the Melbourne Water pipeline alignment forming a loop road servicing residential lots, open space and Beaconsfield Primary School.
- East of Glismann Road: An Access Street (Level 1) in a cul-de-sac configuration, servicing adjacent lots and connecting to the O'Neil Recreation Reserve.
- Access Places and Access Lanes will provide internal connections from residential lots to the three main Access Streets.

Traffic generation and capacity

The development is expected to generate:

- 2,250 vpd based on 250 lots, with peak flows of approximately 213 vehicles per hour (vph) (Table 5).

Table 5: Peak Traffic Flow Estimates

Time period	Vehicles In	Vehicles Out	Total traffic movements
AM peak (8-9am)	44	170	214
PM school peak (3.15-4.15pm)	149	64	213
PM peak (4.30-5.30pm)	149	64	213

- An Access Street (Level 2) could support up to 330 lots (approximately 2,970 vpd), subject to signalised capacity.
- SIDRA analysis confirms the intersection will continue to operate at 'good' conditions with the additional traffic generated by the GRADP.

Stopping Site Distance (SSD) and safety measures

- Glismann Road crest:
  - Design speed to be reduced to 40 km/h, with a corresponding SSD requirement of 36 metres.
  - Traffic calming devices should be installed on approaches to the crest.
  - The existing road surface level will be lowered by 1.6 metres to accommodate SSD requirements.
  - The TIAR includes a longitudinal section showing the surface level reduction and indicative slow points.
- Signalised intersection:
  - A minimum sight distance of 73 metres is required between any internal side road and the intersection.
  - A left-out only access via properties at 111-125 Old Princes Highway is possible, with restricted turning movements.
- Unsignalised access driveways require a minimum distance of 30 metres with a design speed of 40kmh. The TIAR therefore recommends:
  - No vehicle access on either side of the crest (no roads, driveways or parking) to maintain sight distances.
  - Restricted driveway access may be permitted north of the roundabout, subject to SSD assessment.

Other internal layout considerations

- On-street parking on both sides of streets near public open spaces, including the O'Neil Recreation Reserve, managed via 'shuttle flow' design.
- Adapt the existing shared path along the Old Princes Highway to include a levee bank with the shared path positioned on top.
- Remove direct access from existing properties fronting the Old Princes Highway once redeveloped, redirecting access through the internal road network.
- Provide a shared path connection between Glismann Road and Patrick Place.
- The northern end of Glismann Road will terminate in a court bowl with a 10.5 metre radius.
- Target design speeds of 40 – 50 km/h on Glismann Road by avoiding long straight sections of road without traffic calming devices, other than the approach to the crest.
- Shared paths should have minimum width of 2.5 metres, preferably 3.0 metres, particularly along Glismann Road and an east-west link between the school and the recreation reserve.
- Footpaths should have a minimum width of 1.5 metres and be provided on both sides of roads unless vehicle volumes are below 300vpd.

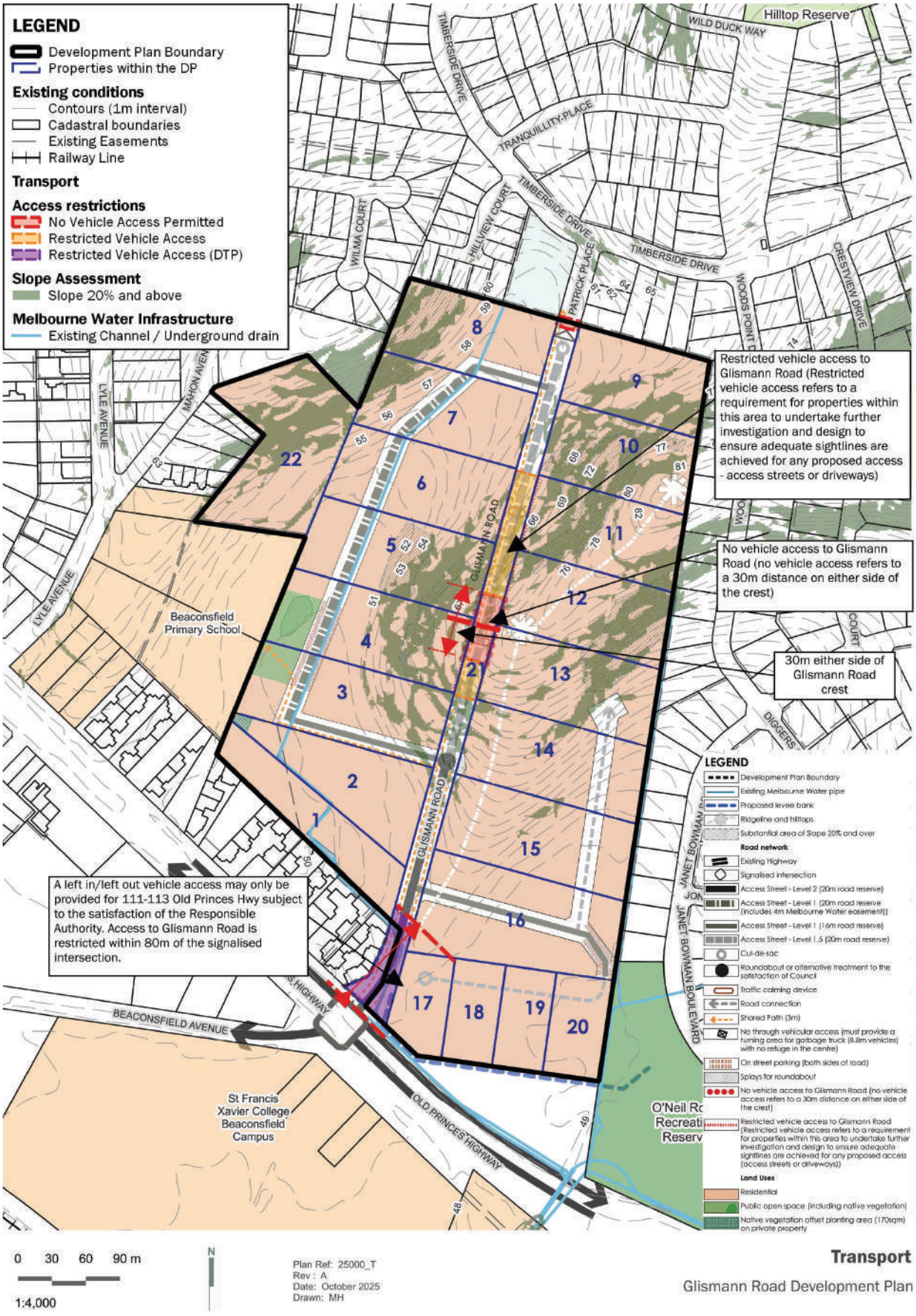


Figure 20 - Key Transport considerations

3.4. Contaminated Land

Glismann Road Development Plan: Contaminated Land Study, Meinhardt, March 2015, updated July 2022

The original Contaminated Land Study, prepared by Meinhardt in March 2015, has been periodically updated to reflect evolving legislative requirements and recommendations from the planning panel process. The most recent update, dated July 2022, specifically assessed the application of Planning Practice Note 30 (PPN30) to the Development Plan (GRADP) area.

The initial assessment was a limited desktop study with no on-site visual assessment or sampling undertaken at the time. In 2018, Meinhardt conducted site inspections at 11 Mahon Avenue and 12 Glismann Road as part of further investigations for Council.

Land use history

- The majority of properties within the GRADP were historically used for grazing farmland dating from the late 1800's until subdivision in approximately 1923.
- A historical title search identified only one potentially relevant ownership detail: 1-16 & 19-22 Glismann Road were transferred in 1915 to William John Smith, a smallgoods manufacturer. However, there is no evidence the land was used for this purpose. No other potential contamination sources were identified via the title review.
- Historical aerial imagery and the 1990 Beaconsfield Action Area Plan Map identified the following sites with potential contamination concerns:
  - 2 Glismann Road – Fill Deposit - fill material from nearby development was placed on this property and potentially other properties in the GRADP.
  - 12 Glismann Road – Former Truck Depot. A 2018 site visit confirmed a previous owner owned a truck(s) but no evidence of bulk fuel storage was identified.
  - 11 Mahon Avenue – Poultry Farm. A 2018 site visit found no evidence of poultry farm operations and all historical shedding had been removed.
  - 107 Old Princes Highway (bordering GRADP) – Former Nursery. The site has since been redeveloped for residential use.

Contamination risk classification

Based on land use history and site-specific investigations, properties were classified by Meinhardt into contamination risk categories as follows:

- Five properties were assessed as having a 'Medium' potential contamination risk due to their historic agricultural use and the presence of storage and maintenance structures.
  - 1 Glismann Road
  - 2 Glismann Road
  - 8 Glismann Road
  - 10 Glismann Road.
  - 11 Mahon Avenue.
- Properties with 'Medium' potential contamination risk proposed to be developed for a sensitive use require a site assessment from a suitably qualified environmental professional.
- All other properties within the GRADP were assessed as having a 'Low' potential contamination risk.
- The July 2022 Meinhardt review specifically considered the application of PPN30 to the GRADP and concluded:
  - No properties were assigned a "High" potential for contamination risk.
  - Four properties (1, 2, 8 and 10 Glismann Road) were classified as having a "Medium" potential for contamination risk, likely due to past storage of commercial pesticides, herbicides and chemicals.

- In accordance with PPN30-2021 guidance, these sites require further assessment under Assessment Level 'B' if proposed to be developed for sensitive land use, and a Preliminary Risk Screen Assessment is recommended to determine if an environmental audit is necessary.
- All other properties within the GRADP were deemed "Low" potential for contamination risk.

3.5. Cultural Heritage

Glismann Road, Beaconsfield Structure Plan, Cultural Heritage Management Plan No 11452, November 2010

Under the Aboriginal Heritage Regulations 2007, the proposed activity within the GRADP is classified as a high impact activity. However, the land is not identified as an area of cultural heritage sensitivity under the regulations.

In recognition of the potential for Aboriginal cultural heritage values, Cardinia Shire Council voluntarily commissioned a Cultural Heritage Management Plan (CHMP). This plan includes both a desktop assessment and a standard field survey, undertaken to proactively manage any cultural heritage considerations.

The CHMP extends across a broader study area than the GRADP boundary and was prepared at a time when no Registered Aboriginal Party (RAP) had been appointed for the region.

History & Desktop Assessment findings

- The GRADP lies within the traditional lands of the *Bunurong* people, part of the *Kulin* nation.
- The region historically contained rich, productive ecological zones including riverine, mountainous, swamp and terrestrial areas making it a valuable resource for Aboriginal subsistence.
- Recorded Aboriginal cultural heritage in the immediate geographic area is closely linked to Cardinia Creek, located south and west of the GRADP. The high number and density of sites along the creek suggest it may have been a major pre-contact Aboriginal pathway of the region and focus of occupation.
- The ridgelines within the broader study area (and extending into the GRADP) consisted of grassy woodland before European settlement and may have been attractive camping locations due to their elevated vantage points overlooking the swampland and river to the south and west.

Areas of potential sensitivity

- The areas identified as potentially sensitive for Aboriginal cultural heritage are limited to the top of the ridgeline and its upper-most slopes, extending from the north-eastern corner of the GRADP. These locations may have been localised routes of movement and contained adjacent resources suitable for low frequency exploitation. The ridgelines could also have served as vantage points and dry refuges during wet periods when low-lying areas were inundated.
- Only undeveloped land within these locations are considered sensitive.
- The remainder of the GRADP is considered unlikely to contain Aboriginal cultural material due to its swampy nature before European settlement and/or past development.

Standard Assessment findings

- A ground surface survey was conducted on 29 October 2010 with consultants and RAP applicant representative Gary Galway.
- The majority of the GRADP has been extensively modified due to residential, recreational, industrial and road development. Where such disturbance has not occurred, steep slopes and low-lying swamp are present.
- The most likely areas to contain Aboriginal cultural values (the ridgelines) have also been subject to development and significant ground disturbance. As a result, any potential Aboriginal cultural values have been removed and/or destroyed.
- Due to extensive historic clearing and development there are no trees within the activity area that are considered to be of sufficient age to possess Aboriginal cultural scarring.
- The standard assessment concluded that no part of the GRADP is considered likely to contain Aboriginal cultural heritage places, and a complex assessment is not required.

3.6. Drainage

Two technical assessments have been completed to guide the management of flooding and water quality management for the GRADP. The initial assessment, completed in 2014, proposed a retarding basin and wetland system within the Old Princes Highway road reserve to manage increased stormwater flows generated by future development and to meet water sensitive urban design (WSUD) objectives. A subsequent assessment in 2016, focused specifically on flood risks to the four Old Princes Highway properties and examined alternative mitigation strategies.

The 2016 mitigation strategy supersedes that proposed in the 2014 assessment and was considered as part of the Amendment C238card process. Accordingly, the 2014 proposed mitigation strategy is not included in the summary below.

Glismann Road Drainage Scheme, Water Technology, July 2014

Catchment and drainage overview

- The study area contains two distinct catchments, with runoff from external residential areas draining into the site.
- The trunk drainage system through is a Melbourne Water asset, with flows directed via a pipe network into a designated waterway south of the Old Princes Highway, ultimately discharging into Cardinia Creek.

Flow management and impact of future development

- Flows exiting the GRADP are controlled by the capacity of the pipes under the highway.
- Modelled future developments within the GRADP indicates:
  - An increase in peak flows leaving the area.
  - A rise in peak water levels upstream of the Old Princes Highway.
  - However, the highway is not overtopped under developed conditions.

Minor and major drainage network considerations

- Minor drainage (5 year ARI flow):
  - The drainage network will utilise the existing Melbourne Water drain, supplemented by new pipes within future subdivisions.
  - Hydraulic analysis confirms that the existing drain has sufficient capacity to accommodate minor flows from both the external catchment and new development within the GRADP.
  - The downstream section of the Melbourne Water drain will require regrading and extension to connect to the proposed (now superseded) retarding basin and wetland.

- Major overland flow paths:
  - A major overland flow path is required through the steeper northern section of the GRADP, traversing properties at 12, 14, and 16 Glismann Road, and continuing along the eastern boundary.
  - This flow path widens progressively:
    - To 8 metres through 4, 6, 8, and 10 Glismann Road, and
    - To 15 metres through 2 Glismann Road and across the frontage of the Old Princes Highway properties.
- To ensure flood resilience, all new building floor levels should be constructed at least 300 mm above the 1% AEP (100-year) flood level.

Glismann Road Drainage Scheme – additional flooding and water quality assessments, Water Technology, July 2016

- This follow-up assessment provides specific guidance for managing flood risk to the four properties fronting the Old Princes Highway and refines the WSUD treatment approach for the overall drainage scheme. In the absence of a retarding basin, modelling indicates that flood risks to these properties will increase once development occurs in the GRADP.
- A bund/levee system was investigated as an alternative mitigation approach. Two alignment options were evaluated, both offering at least 600 mm freeboard to the future 1% AEP flood levels.
- Levee Alignment 1, which crosses the existing table drain to the east, is the preferred solution. It offers the highest level of protection, particularly for the easternmost property at 123–125 Old Princes Highway. This alignment requires installation of an additional drainage structure to manage upstream runoff from the local catchment
- WSUD treatment can still be achieved within the Old Princes Highway road reserve, either in full or in part (50% treatment). At minimum, a single sediment pond will be required.
- Water levels are predicted to overtop the highway at 49.44 m AHD. As such, all future floor levels should incorporate appropriate freeboard above this elevation.
- Of the four properties assessed, only 123–125 Old Princes Highway (with an existing floor level of 49.5 m AHD) is expected to remain at minimal risk of flooding during significant storm events when water backs up behind the highway.

3.7. Development Contributions

Glismann Road Development Contributions Plan, Urban Enterprise, May 2022 (amended December 2023)

The DCP is to be implemented by DCPO5 as discussed at Section 2.5.2.2.

- Areas of slope over 20% cannot be developed, and are excluded from the net developable area.
- Achieves a residential net developable area of 15.72ha, and estimated dwelling yield of 267.
- Infrastructure items funded by the DCP:
  - O'Neil Recreation Reserve pavilion.
  - Roads, intersections, open space, shared path and strategic planning costs.
  - Local roads and upgrades to Glismann Road.
  - Local park and upgrades to the O'Neil Recreation Reserve.
- Development triggers are provided for each identified project.
- Development Infrastructure Levy of $458,767.93 per net developable hectare (September 2019).
- Confirms location of key infrastructure items that cannot be changed without a planning scheme amendment (Figure 21 - Development Contributions Projects (Source: GRDCP, Urban Enterprise, December 2023)).

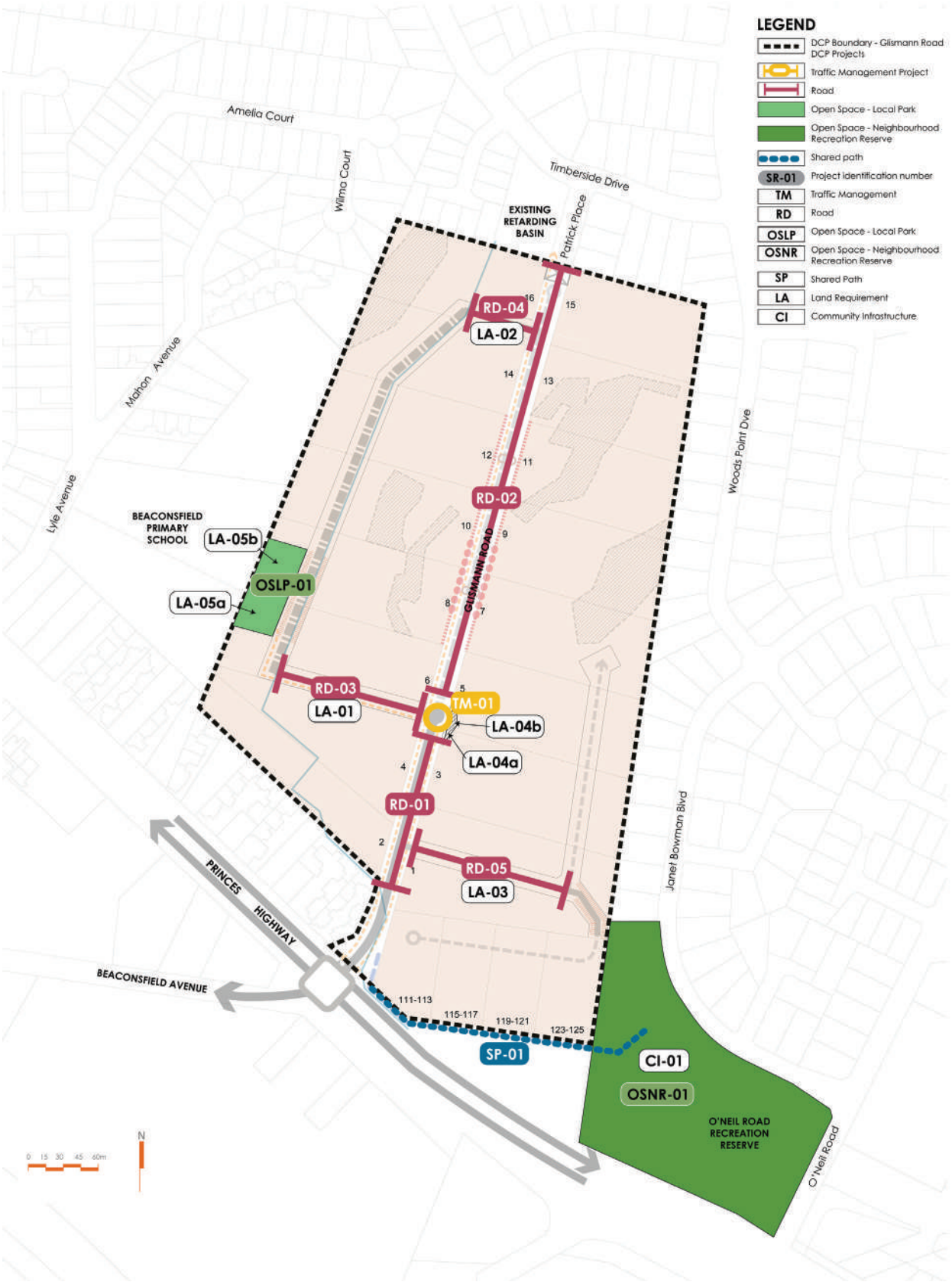


Figure 21 - Development Contributions Projects (Source: GRDCP, Urban Enterprise, December 2023)

3.8. Service Infrastructure

Figure 22 outlines the existing infrastructure in and immediately adjoining the GRADP. Further details are provided below regarding this existing infrastructure and potential upgrades required to service development within the GRADP. Requirements from servicing authorities for provision of infrastructure is preliminary, and exact requirements will be provided once an application for planning permit is made for subdivision.

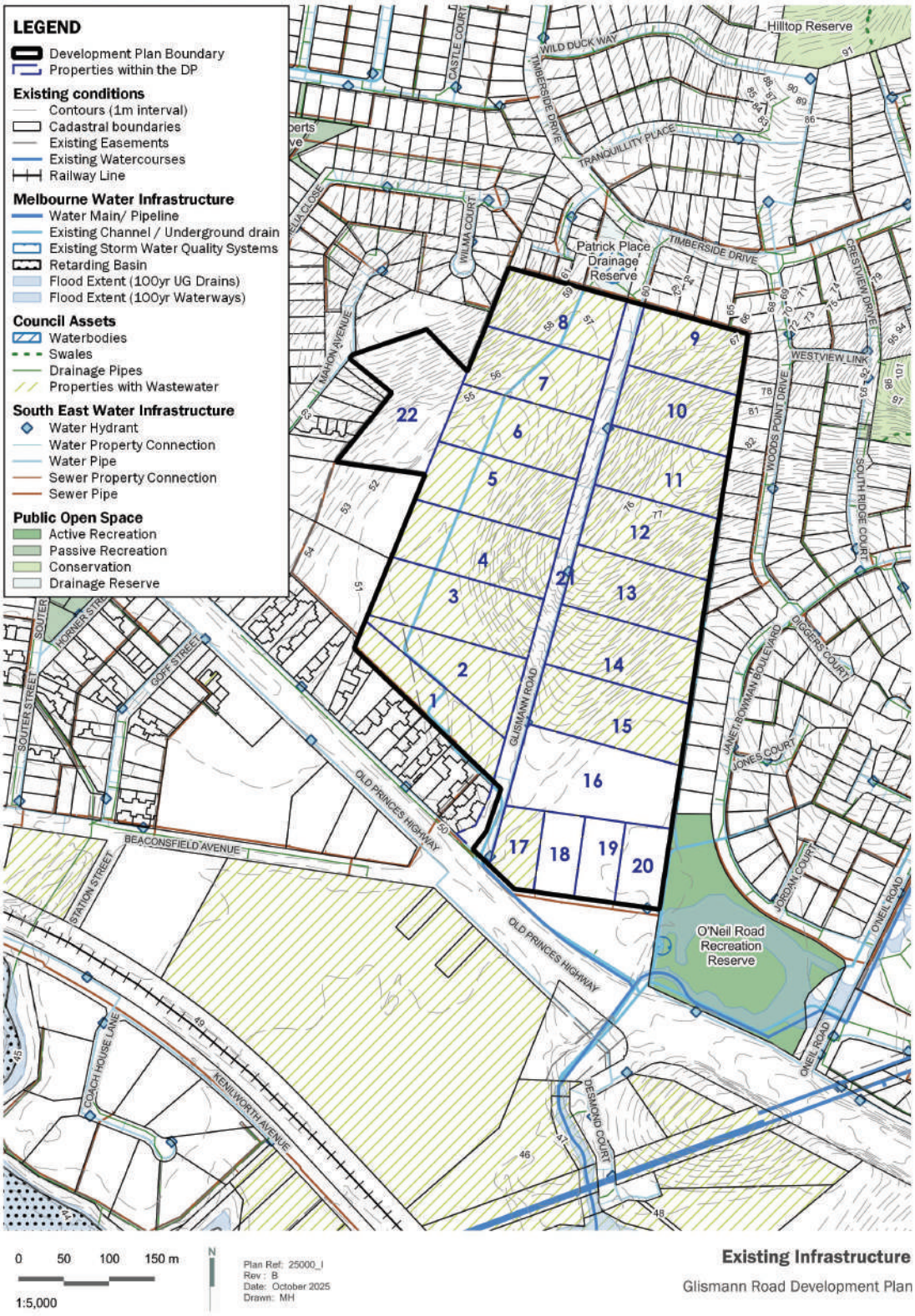


Figure 22 - Existing Infrastructure

3.8.1. Potable Water Supply

South-East Water (SEW) has provided the following preliminary servicing advice for development within the Glismann Road precinct:

'To provide drinking water facilities to the development, it will be necessary to remove the existing 100mm AC water mains located in Glismann Road and [Old] *Princes Highway and construct an estimated 910m of 150mm water main as shown A-B on the attached 'Drinking Water Indicative Alignment Plan'.'*

Developers will be responsible for the construction of water reticulation required for each development. Details of the water reticulation and extension/connection works will be confirmed by a formal SEW Development Deed.

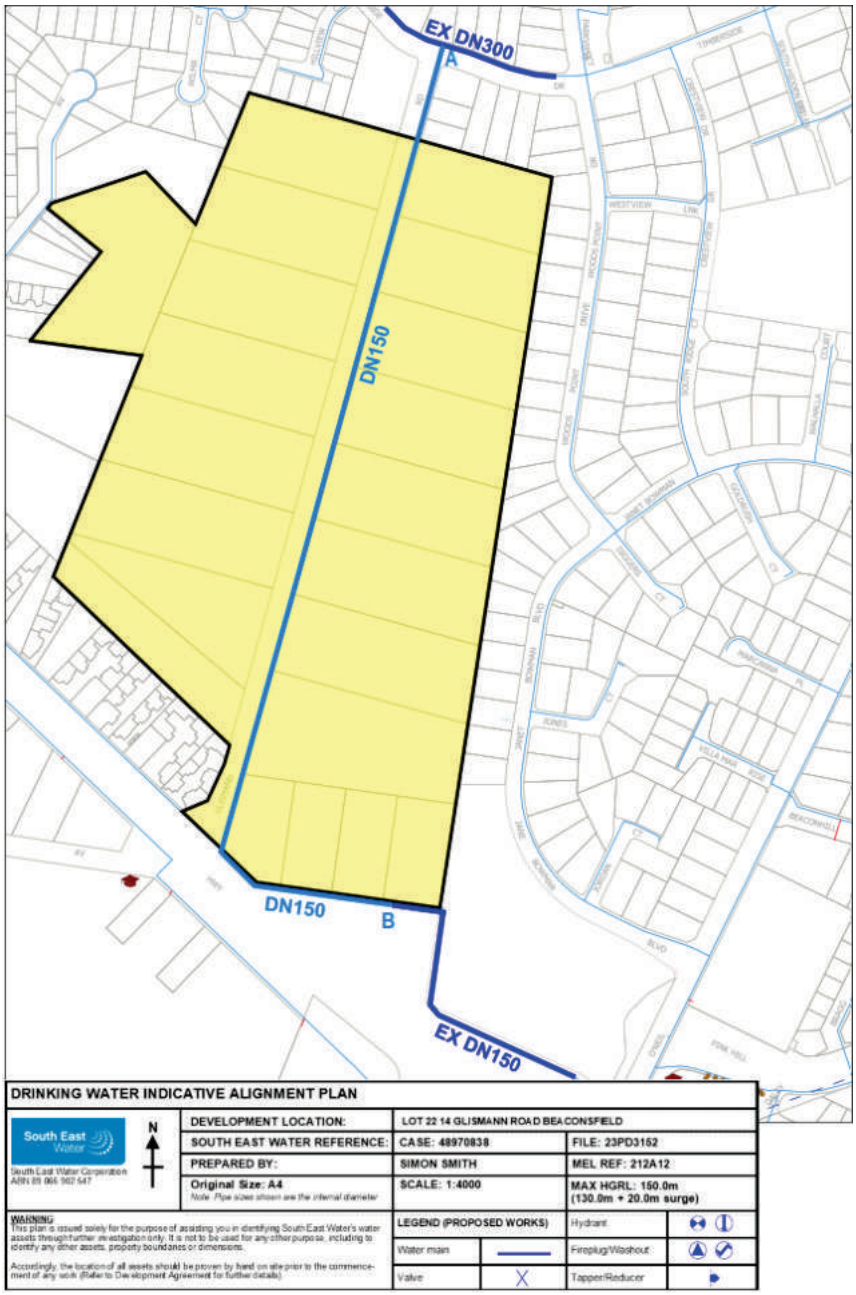


Figure 23 - Indicative alignment of drinking water supply

3.8.2. Stormwater Infrastructure and Drainage

The GRADP is included within Melbourne Water's O'Neil Road Development Services Scheme (DS), which forms part of the Western Port catchment (Refer to Figure 24). The precinct's topography features pronounced high points along the eastern ridgeline (approximately 83 m AHD) and at the north-west corner (approximately 75 m AHD). These elevated areas create a central valley, directing overland flows towards the Old Princes Highway. The lowest point in the precinct, at around 49 m AHD, marks the discharge location where stormwater enters Melbourne Water's trunk drainage network through existing 1800 mm and twin 1500 mm culverts beneath the highway.



Figure 24 - Drainage Scheme map with the Glismann Road Development Plan area highlighted in yellow - source Melbourne Water website.

A comprehensive drainage management strategy for the precinct was prepared by Water Technology in 2014 and updated in 2016 (Refer to Section 3.6). This strategy outlines required stormwater infrastructure, flood mitigation, and water quality management measures. The initial 2014 approach proposed an integrated system comprising a retarding basin and wetland within the triangular open space between the Old Princes Highway and Property 17, 18, 19, and 20. The system was designed to attenuate post-development peak flows to pre-development levels and achieve best-practice pollutant reduction targets, specifically: 80% reduction in total suspended solids (TSS), 45% reduction in total phosphorus (TP), and 45% reduction in total nitrogen (TN), as per the Urban Stormwater Best Practice Environmental Management Guidelines.

Subsequent investigations led to a revised approach in the 2016 Water Technology assessment, recommending the replacement of the retarding basin with a flood protection levee. Supported by Melbourne Water, this revised measure involves constructing a 450 mm high levee bank along the frontage of Properties 17, 18, 19, and 20 as shown in Figure 25. The purpose of the levee is to protect existing dwellings from below-floor flooding. The levee alignment follows the existing shared path within Crown land, maintains access to the affected properties, and extends eastwards to cross the table drain, incorporating a drainage structure to ensure upstream catchment flows are appropriately discharged. The report also identifies options for meeting stormwater quality obligations through stormwater quality offset contributions where on-site treatment is not provided.



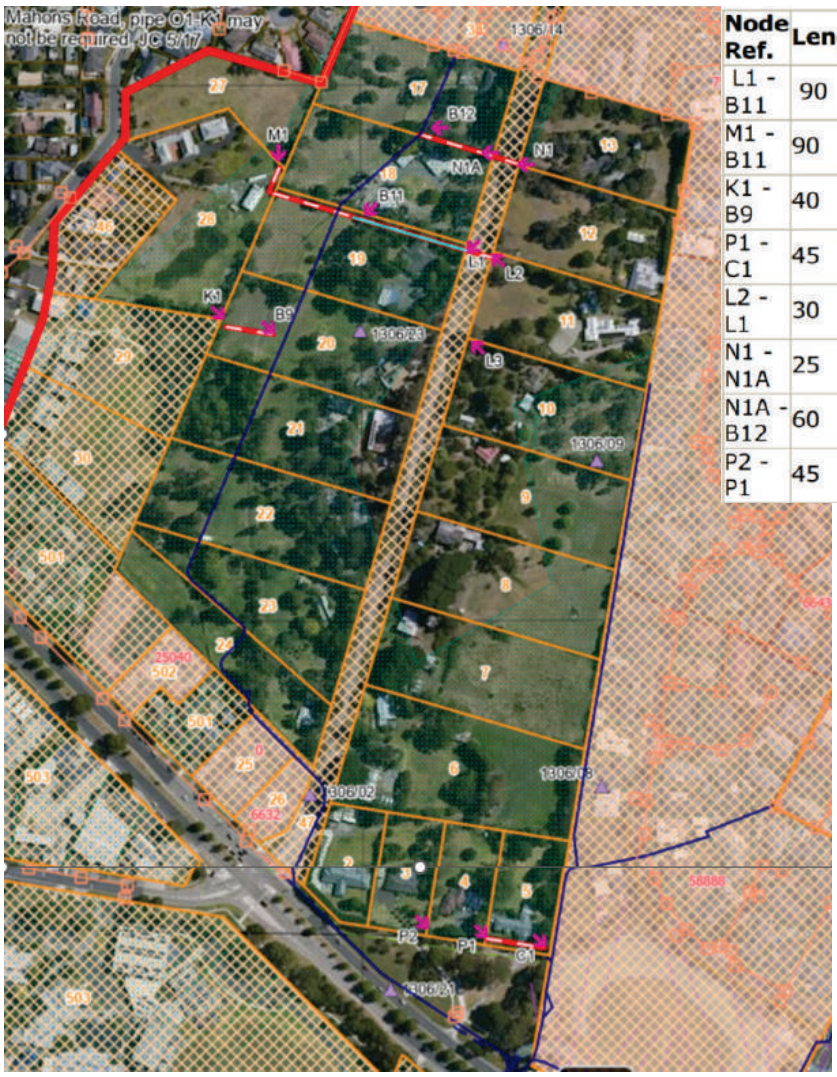
Figure 3-3 Alignment Option 1 and 1% AEP Modelled Flood Depths

Figure 25 - Flood Levee plan with post developed flood modelling overlaid. Source: Glismann Road Drainage Scheme Report prepared by Water Technology, May 2016.

The internal drainage network for the precinct will consist of a pit and pipe system designed to handle a 1 in 5-year rainfall event. Overland flow paths and the surrounding road network are intended to safely convey runoff from the 1% AEP (100-year ARI) event. Minimum freeboard requirements will apply: 300 mm above the 1% AEP flood level for drainage infrastructure, and 600 mm for waterways, in accordance with Melbourne Water and Council standards. The overall drainage design must comply with contemporary best-practice water quality and flood management standards.

According to Melbourne Water's pre-development advice (May 2025), permanent drainage works are required within the precinct under the O'Neil Road DS (Refer to Figure 26). A drainage agreement under the Water Act 1989 must be executed prior to Statement of Compliance for subdivision. The agreement will formalise drainage contributions, which are currently set at $233,237 per hectare, comprising a $123,924/ha hydraulic charge, a $74,889/ha stormwater quality charge, and a $34,424/ha gross water quality offset.

Melbourne Water will require the submission and approval of a Stormwater Management Strategy with future planning permit applications, demonstrating compliance with the intent of the O'Neil Road DS, and supported by a functional drainage design, flood modelling, and integration of Water Sensitive Urban Design (WSUD) principles. Interim sediment control and temporary retardation measures are likely to be required to manage downstream impacts until permanent drainage assets are operational.



Node Ref.	Length(m)	Diameter (mm)	Comments/ Ownership
L1 - B11	90	300	Council Owned
M1 - B11	90	300	Council Owned
K1 - B9	40	450	Council Owned
P1 - C1	45	375	Council Owned
L2 - L1	30	300	Council Owned
N1 - N1A	25	300	Council Owned
N1A - B12	60	300	Council Owned
P2 - P1	45	300	Council Owned

Figure 26 - Plan showing the existing Melbourne Water underground scheme drains in dark blue and proposed drainage pipes blue and dashed red lines. Source: Melbourne Water Predevelopment Advice.

3.8.3. Sewage Infrastructure

South-East Water (SEW) has provided the following preliminary servicing advice for development within the Glismann Road precinct:

'There are capacity constraints in the surrounding sewer network. Whilst there is some spare capacity in the existing sewers surrounding the site, to service the entire development will require upgrades/ duplication of the existing system and downstream pump station located in Adamson Road. The scope of upgrade works will be influenced by the reticulated sewer design for the development proposal.

The majority of the site will need to be serviced by the 225mm sewer main to the south, with the remainder discharging to the 150mm sewer main to the north, as indicated on the attached 'Sewer Indicative Alignment Plan'. Discharge to the northern sewer should be maximised as there are fewer capacity constraints in this system. (Refer to Figure 27)

Developers will be responsible for the construction of sewer reticulation required for each development. Details of the sewer reticulation and extension/connection works will be confirmed by a formal SEW Development Deed.

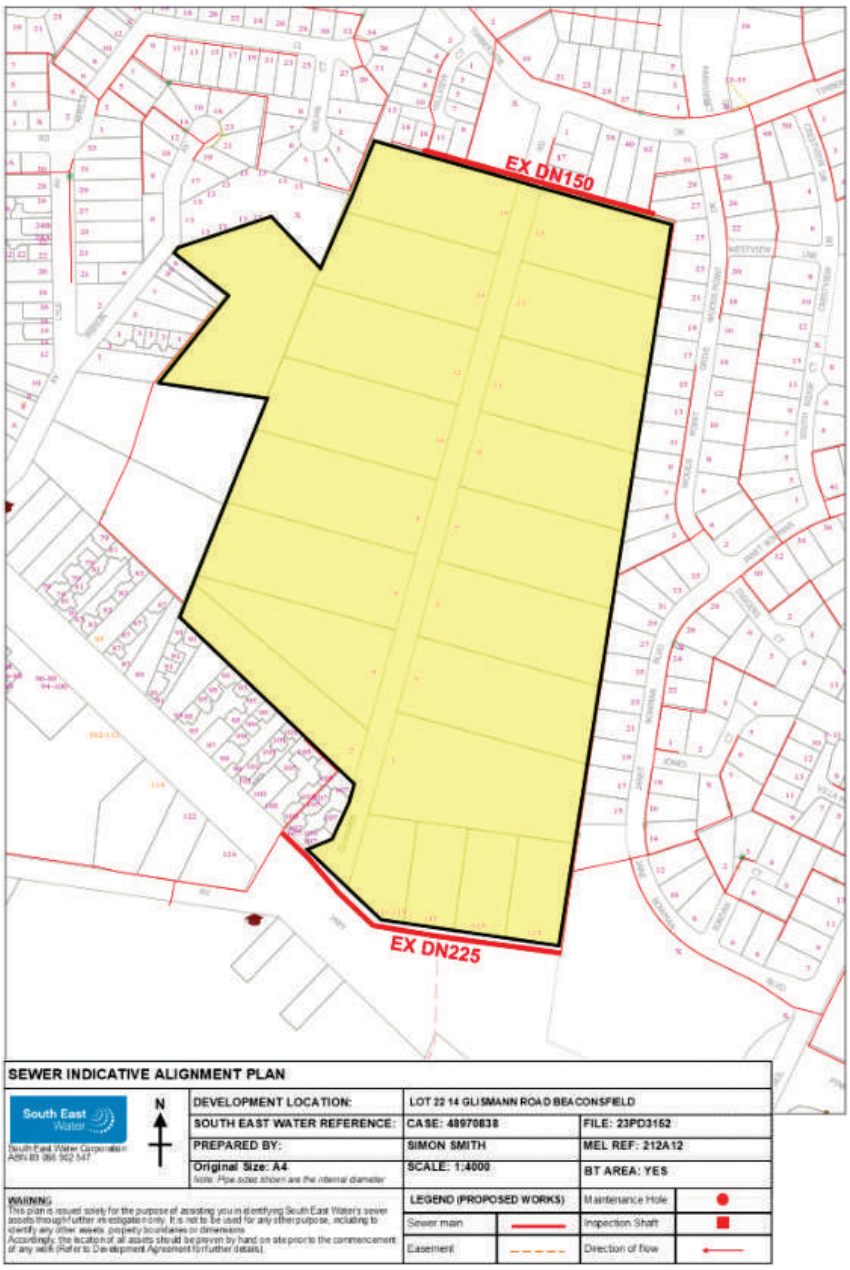


Figure 27 – Sewer Indicative Alignment Plan (provided by SEW)

3.8.4. Electricity

Ausnet is the responsible authority for the provision of electricity supply to the GRADP.

The Ausnet Services BYDA plan at Figure 28 shows existing 22kV distribution overhead powerlines along the Old Princes Highway and extending halfway up Glismann Road.

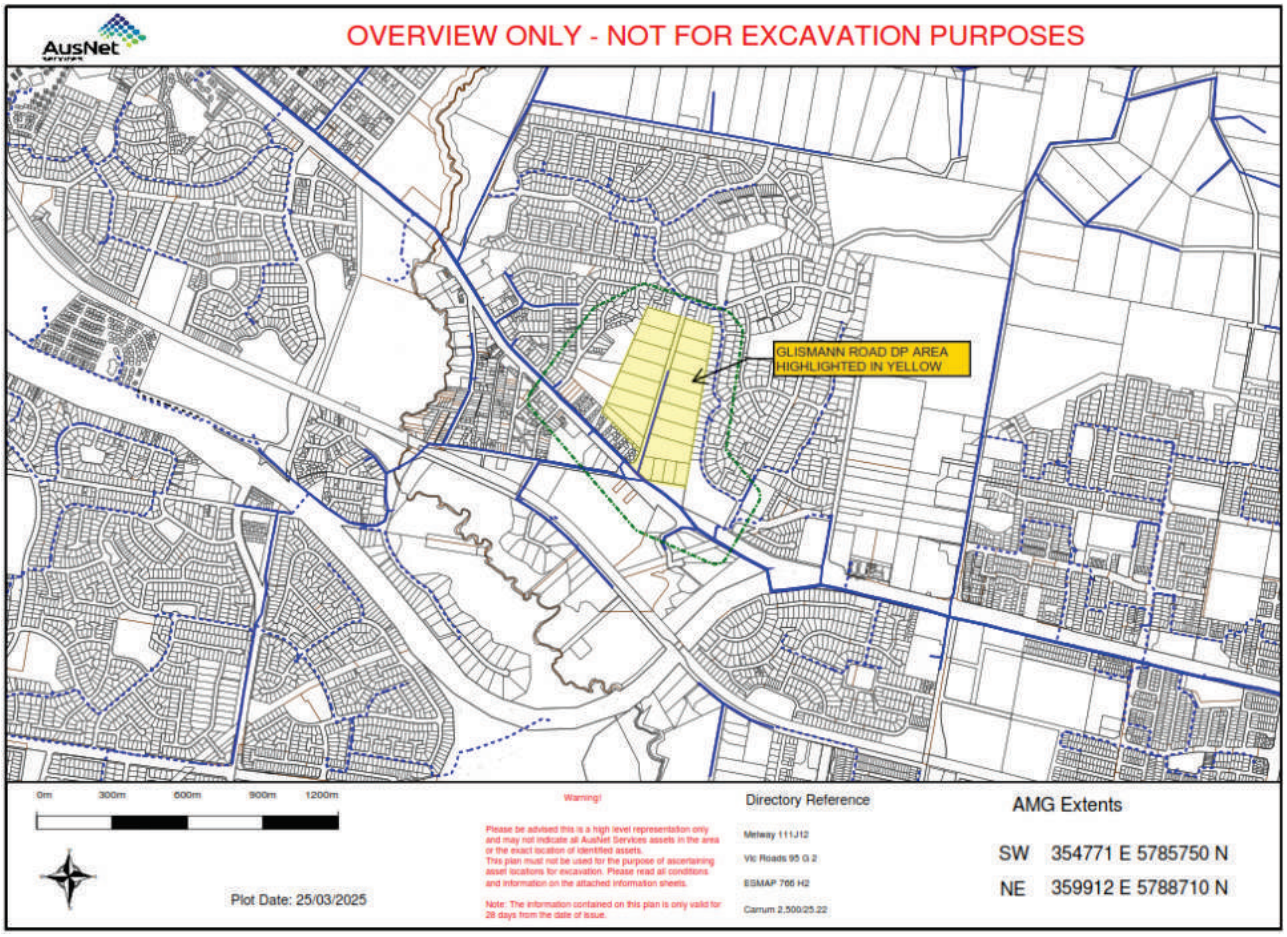


Figure 28 - Electrical infrastructure (provided by Ausnet)

The proposed development of the precinct will be required to connect into and extend the electrical infrastructure as per responsible authority requirements. Details of the requirements for supply will be subject to receipt of formal offer from the relevant electricity authority at the time of development and detailed electrical design.

Developers are responsible for the construction of electricity infrastructure to service their development.

3.8.5. Telecommunications

A BYDA investigation confirms existing NBN infrastructure along the Old Princes Highway and Glismann Road. Developers will be required to install pit and pipe infrastructure suitable for optical fibre installation and enter into a Master Development Agreement with NBN or other communications provider.

4. Summary of Key Issues relevant to the GRADP preparation

The key issues identified in the preceding section are summarised in the following tables, with references to the relevant sub-sections. A response and recommended actions are provided for each issue, identifying matters to be addressed through the Development Plan and, where appropriate, to be included as conditions on any planning permit that may be issued.

Study area and local context (Sections 2.2 and 2.3)

Key issues	Response
1. Provide local open space behind Beaconsfield Primary School.	DPO19 dictates the placement of local open space behind Beaconsfield Primary School. The location and area of local open space is dictated by DCPO5 and the Development Contributions Plan. DPO19 requires the first application to subdivide land containing local open space to provide an indicative concept master plan for the entire local park **Action:** Landscape Master Plan to be prepared with the GRADP should address: • Street parking on both sides of the road and identify appropriate pedestrian crossing point(s). • The likely staging of the delivery of the local open space and the need to ensure its objectives are achieved.
2. Enhance pedestrian connections between Mahon Avenue and Glismann Road.	**Action:** Provide connection to Property 22 as required by DPO19.
3. Allow pedestrian and cycling access only between Glismann Road and Patrick Place.	DPO19 dictates no vehicle connection between Glismann Road and Patrick Place.
4. Improve access to O'Neil Recreation Reserve.	DPO19 dictates a street interface to O'Neil Recreation Reserve. Pedestrian and bicycle links are to be reviewed. **Action:** Landscape Master Plan to be prepared with the GRADP should address: • Street parking on both sides of the road and identify appropriate pedestrian crossing point(s).
5. Further assess local pedestrian linkages.	**Action:** Provide connections to the existing shared path and footpath network

Existing conditions (Section 2.4)

Key issues	Response
1. Undulating landscape impacts proposed road alignments, site cut and fill, and view lines.	Identify visually prominent hilltops and hillsides, including significant views of the site and views from the site, including (1) the location of steep slopes of 20 per cent or more; and (2) the location of vegetation. Utilise information provided in the TIAR to determine appropriate alignment and requirements for Glismann Road. Consider alignment of internal roads and preferred design and built form outcomes. Utilise existing survey, topographic information and the Landscape Assessment information to minimise site cut and fill requirements and clarify predevelopment slope over 10 per cent. Utilise the Landscape Assessment and Landscape Management Framework and topographic information to identify local view lines. **Action:** Prepare slope management guidelines that addresses slope management design principles to assist with placement of internal roads and preferred design and built form outcomes. **Action:** Prepare a slope analysis plan.

Key issues	Response
	Action: Apply the recommendations of the Landscape Assessment and Landscape Management Framework to areas of significant slope and/or within significant view lines. **Action**: Prepare specific advice in GRADP regarding: • Road alignment and built form outcomes, including preferred development outcomes. • The treatment of the change in grade between the property boundaries. • A statement of what works outlined in the Slope Management Guidelines will need to be undertaken by the developer prior to the issues of the Statement of Compliance.
2. Construction is limited to slopes of 20% or less. 3. No development is permitted on areas with existing pre-development slope of over 20 per cent.	DPO19 dictates this restriction. **Action:** Clearly identify areas of slope within the GRADP and provide clear guidance regarding future development. **Action**: Repeat DPO19 condition requirement in GRADP that requires either an envelope/notice of restriction or an agreement with the Responsible Authority under Section 173 for the following:

Key issues	Response
	• A restriction/envelope to prevent development on areas within the 'substantial area of slope 20 per cent and over' • A restriction/envelope to maintain landscape character, native vegetation and significantly steep topographical features of the site where applicable. • Allow only one (1) single dwelling on each lot and specify that lots may not be further subdivided for areas within the 'substantial area of slope 20 per cent and over'. • Building design guidelines and fencing controls.
4. Vegetation coverage is high compared to surrounding areas.	DPO19 and ESO1 identify the high vegetation coverage as part of the GRADP's character. **Action:** Review vegetation coverage as part of the site analysis plan. **Action:** Prioritise retention of vegetation in the GRADP in response to the requirements of the DPO19 ESO1, and Clause 52.37 requirements as a preference to removal under the provisions of the MSA. **Action**: Repeat DPO19 condition requirement in GRADP that requires either an envelope/notice of restriction or an agreement with the Responsible Authority under Section 173 for the following: • A restriction/envelope to maintain landscape character, native vegetation and significantly steep topographical features of the site where applicable.
5. Two small water bodies are present within the GRADP.	**Action:** Neither are required to be retained in the GRADP. The EVC within the area of local open space is to be retained.
6. Localised flooding issues require resolution.	The Flooding and Water Quality Assessment provides a levee solution to localised flooding issues. **Action:** Include the proposed levee solution within the GRADP, noting its timing and construction is subject to the approval processes of Melbourne Water.
7. The crest along Glismann Road restricts sightlines in both directions.	Utilise information provided in the TIAR to determine appropriate alignment and requirements for Glismann Road. **Action**: Prepare specific advice in the GRADP regarding: • The location of the 30m no access location for Glismann Road including indicative possible access points for driveways and/or side streets from Glismann Road. • The first application to subdivide land with access to Glismann Road (Access Street Level 1.5) must be accompanied by a functional design for the entire length of the road, or a length of road to the satisfaction of Responsible Authority.

Key issues	Response
8. Local bus stops provide public transport access. 9. Beaconsfield Railway Station is located approximately 700 metres south-east of the GRADP.	Ensure access to local public transport options. **Action:** Prepare a movement network response for the GRADP and immediate surrounds.
10. MSA levy area	Consider implications for any vegetation retention plan.
11. Lot Size and Slope 12. Design of roads on slopes above 15%. 13. Design of lots on slopes above 15%. 14. Landscape character implications of building on slope.	**Action:** GRADP to include principles for road design and show proposed roads aligning with these principles. **Action:** GRADP to include slope management guidelines for development on the lots. **Action:** GRADP to consider how trees and existing vegetation can be retained within lots and roads whilst also considering construction requirements for building on sloping land.

Planning context (Section 2.5)

Key issues	Response
1. Ensure plans align with settlement policies and Housing Targets.	DPO19 ensures alignment with settlement policies by requiring the residential development of the GRADP and will contribute towards achieving the relevant Housing Target
2. Development must respect and maintain the natural qualities of significant landscape areas.	DPO19 and ESO1 emphasise the need to identify and maintain the areas landscape qualities. **Action:** Prepare advice in the GRADP regarding the triggers for a planning permit in the ESO1 and how they are addressed in the GRADP.
3. Contribute to a 30% tree canopy target. 4. Reducing urban heat impacts.	Utilise existing site assessments to determine location and viability of retaining existing canopy trees. **Action:** Map tree coverage based on available information. **Action:** Address in the GRADP how future applications need to consider the 30% tree canopy target.
5. Bushfire risk management is essential to protect residents, property and infrastructure.	The GRADP is not included in either the Bushfire Management Overlay or in a designated Bushfire Prone Area. Further bushfire risk consideration is not required.
6. Address potentially contaminated land issues before development commences.	The Contaminated Land assessments appropriately inform the preparation of the GRADP, including with regards to PPN30. DPO19 requires that applications respond to the Meinhardt (March 2015) (updated May 2020 and May 2022), Glismann Road Development Plan Contaminated Land Study and identifies four properties that require a Preliminary Risk Screening Assessment (PRSA) in accordance with DELWP (July 2021) Potentially Contaminated Land General Practice Note 30 (PPN30) **Action:** Address in the GRADP how future applications for properties identified as requiring a PRSA must respond, as well as the permit conditions listed in DPO19.
7. Minimise stormwater runoff and manage flow rates stormwater from developed areas.	The Drainage Scheme Assessment provides an overview of infrastructure required to manage future stormwater flows from the GRADP. **Action:** Confirm with relevant landholders and authorities that the recommendations of the Drainage Scheme Assessment can be implemented. **Action:** Consult with Council and relevant authorities to determine if there have been any infrastructure or catchment changes that may impact the flow of stormwater.

Key issues	Response
	Action: Include the proposed levee solution within the GRADP, noting its timing and construction is subject to the approval processes of Melbourne Water.
8. Provide a variety of lot sizes to accommodate diverse housing needs and household types.	DPO19 requires the GRADP provide an indicative lot layout that includes a diverse range of lot sizes that responds to the opportunities and constraints of the area. **Action:** Prepare an indicative lot layout plan. **Action**: Prepare advice in the GRADP regarding: • Lot yield and preferred density distribution. • Identify lots affected by a restriction/envelope. • An indication of sequencing of subdivision. • Documentation should clarify the purpose of the restriction/envelope and what buildings and/or works the restriction/envelope restrictions apply to.
9. Neighbourhood planning should provide streets with direct, safe and convenient access to destinations, and accessibly located public transport stops.	Ensure access to local public transport options. **Action:** Prepare a movement network strategy/response for the GRADP and immediate surrounds.

Key issues	Response
10. Protect and maintain the visual prominence of vegetated hilltops and hillsides, preserving views from within and outside of the GRADP. 11. Promote subdivision layouts that maximise vegetation retention, minimise terrain disturbance, and ensure buildings and structures do not visually dominate the landscape. 12. Building siting and design must address environmental hazards including slope, erosion and fire risk. 13. Maintain view lines and vegetation as predominant landscape features.	Identify visually prominent hilltops and hillsides, including significant views of the site and views from the site, including (1) the location of steep slopes of 20 per cent or more; and, (2) the location of vegetation. Utilise information provided in the TIAR to determine appropriate alignment and requirements for Glismann Road. Consider alignment of internal roads and preferred design and built form outcomes. Utilise the Landscape Assessment and Landscape Management Framework and topographic information to identify local view lines. **Action:** Prepare slope management guidelines to assist with placement of internal roads and preferred design and built form outcomes. **Action:** Prepare a slope analysis plan. **Action:** Apply the recommendations of the Landscape Assessment and Landscape Management Framework to areas of significant slope and/or within significant view lines. **Action:** Prepare a landscape master plan that provides clarity and consistency for subdivision and development applications.

Key issues	Response
	Action: Prepare specific advice in the GRADP regarding: • A Landscape Masterplan which illustrates how the proposed development is responsive to the development including key themes, landscape principles and character that will define the subdivision and/or development. • Building design guidelines and fencing controls which addresses the housing planning and design guidelines.
14. Planning must ensure timely, efficient, equitable and accessible delivery of social and physical infrastructure.	**Action**: Prepare specific advice in the GRADP regarding: • Development sequencing or coordination of subdivision and/or development including the provision of the internal road network. • How the road connection will be facilitated between Property 16, 17, 18, 19 and 20.
15. Development Contributions Plan	**Action:** Prepare specific advice in the GRADP regarding the detailed land budget in the Glismann Road DCP. Needs to comply with the NDA % of property.

Key issues	Response
16. Development is not permitted on some areas that have a slope of 20% and over. This area is excluded from the Net Developable Area (NDA) in order to fairly apportion infrastructure costs across developable land only.	**Action:** Prepare specific advice in the GRADP regarding (1) development not requiring a permit, (2) subdivision and (3) community infrastructure levy as outlined in the Glismann Road DCP.

Biodiversity (Section 3.1)

Key issues	Response
1. The 2010 Assessment may not reflect current vegetation conditions as changes to vegetation are likely since then.	An updated Assessment is not necessary for preparing the GRADP because: • DPO19 requirements ensure planning permit applications will be accompanied by a flora and fauna assessment, and native vegetation information management report. • The GRADP is within the Metropolitan Strategic Assessment (MSA) area, providing valuable information on scattered trees to supplement the 2010 Assessment. **Action:** Prepare a Vegetation Plan in the GRADP.
2. The Assessment mapped and identified 29 scattered trees within the study area. These comprise very large, large, medium and small trees, and conservation significance ranging from high to low.	**Action: P**rioritise the retention of trees with high and very higher conservation significance. **Action:** Consult with Council's environment team to identify issues and prioritise vegetation retention strategy. **Action:** Develop a site responsive design that prioritises the retention of vegetation wherever feasible, particularly when considering road alignments, public open spaces, and infrastructure placement. **Action:** Require arboriculture assessments for planning permit applications.
3. Remnant native vegetation within the study area comprises three EVCs, including Swampy Riparian Woodland, Sedge Wetland and Grassy Woodland.	DPO19 does not require the retention of any EVC vegetation or water bodies. **Action:** The EVC within the area of local open space is to be retained.

Landscape (Section 3.2)

Key issues	Response
1. The Glismann Road and the Old Princes Highway intersection have very high visual exposure, shaping the entry experience to the GRADP.	**Action:** Prioritise the retention of vegetation within the Old Princes Highway road reserve and vegetation within and immediately adjacent to Glismann Road, as appropriate. **Action:** The exotic, planted vegetation at the Glismann Road and the Old Princes Highway has limited landscape value and does not need to be retained.
2. The lower areas west of Glismann Road, and the north-eastern corner of the GRADP are less visible and may accommodate more flexible development outcomes.	**Action:** Include analysis in site analysis and design response plan to guide GRADP framework.
3. Maintain canopy vegetation so it continues to be the most consistent and dominant visual element in the GRADP.	**Action:** Prioritise retention of vegetation in the GRADP in response to the requirements of the DPO19 and ESO1 requirements.
4. High-visibility areas should adopt design strategies that blend with the surrounding environment, such as non-reflective materials, subdued colours and strategic landscaping.	**Action:** Apply the recommendations of the Landscape Assessment and Landscape Management Framework to high visibility areas.
5. In areas with limited sightlines, consider road realignments or vegetation management to improve safety and visibility.	**Action:** A Functional Layout Plan will determine the alignment of Glismann Road prior to subdivision.
6. Areas of 'very high' sensitivity and existing vegetation cover should be mapped to inform GRADP outcomes.	**Action:** Identify sensitive locations within the GRADP and establish design guidance.
7. Avoid high density development in 'very high' and 'high' visual sensitivity areas and prioritise development in 'moderate' to 'none' visual sensitivity areas where visual impacts are reduced.	

Key issues	Response
8. Avoid development on significant view lines, ridgelines, or high points, to maintain natural vistas. Where placement in view lines is unavoidable, structures should be inconspicuous, using design strategies that blend with the landscape.	**Action:** Include analysis in site analysis and design response plan to guide GRADP framework. **Action:** Apply the recommendations of the Landscape Assessment and Landscape Management Framework to guide building and design outcomes. **Action:** Incorporate the design of the Landscape Management Framework into the GRADP. Include specific advice in GRADP regarding alignment and built form outcomes, including preferred development outcomes.
9. Balancing planning principles (e.g. higher vegetation retention requirements, lower lot densities, and a greater responsiveness to topography and visual sensitivity) with landholder expectations may be challenging.	**Action:** Provide clear guidance in pre-engagement information sent to landholders regarding the scope of DPO19 and the decision making framework now in place.

Traffic (Section 3.3)

Key issues	Response
1. Primary vehicular access to the GRADP will be via the existing signalised intersection at the Old Princes Highway.	DPO19 dictates this to be the only access and egress to the GRADP with no other external vehicular connections to be provided.
2. The internal road network design will follow Victorian Planning Authority (VPA) design criteria.	Internal road network design to be in accordance with Council's standards. **Action:** Indicative cross-sections to be included in GRADP.
3. Refer to Glismann Road Design Principles established in TIAR and DPO19.	**Action:** Glismann Road design principles as established in the TIAR and DPO19 are to be adopted. **Action:** Clearly establish requirements for all internal roads and delivery of Glismann Road. **Action:** Clarify that detailed design of Glismann Road is subject to the completion of a Functional Layout Plan which will confirm the treatment of TM-01, location and type of traffic calming devices, and location and height of retaining walls.
4. Refer to Internal Road Network Principles established in TIAR and DPO19.	**Action:** Internal road network design principles as established in the TIAR are to be adopted. **Action:** Consider internal street implications in areas where there is limited or no on-street parking on Glismann Road. Require on-street visitor spaces if appropriate, particularly in vicinity of the Beaconsfield Primary School and the O'Neil Recreation Reserve. **Action:** Consider alignment of internal roads with regards to preferred slope and built form outcomes. Include specific advice in GRADP regarding alignment and built form outcomes, including preferred development outcomes. **Action:** Consider timing and delivery of development in relation to local access roads, providing landholders with development options if desired.
5. The Glismann Road design could support up to 330 lots (2,970 vpd), contingent upon the signalised intersection's ability to accommodate increased peak hour traffic.	DPO19 dictates a site responsive GRADP layout to be guided by slope, landscape and vegetation retention. Lot yields are a secondary consideration.

Key issues	Response
6. Refer to Signalised Intersection requirements established in TIAR and DPO19.	**Action:** Ensure internal road network layout does not impact upon the functionality or safety of state level infrastructure. **Action:** Clarify in the GRADP that applicants must consult with DTP regarding any proposed access in proximity to the Old Princes Highway intersection.
7. Parking to be provided on both sides of the carriageway adjacent to public open spaces, including the O'Neil Recreation Reserve, using 'shuttle flow' traffic management.	**Action:** Consider implications for nearby lot access and location of crossovers. **Action:** Ensure sufficient street tree planting opportunities are provided. **Action:** Provide detailed design in the GRADP for these specific locations to provide certainty for future permit applications. **Action:** Continue to prioritise non-vehicular access to these locations.
8. Once developed, close direct access to the Old Princes Highway for three properties, redirecting access through the internal road network.	**Action:** Provide detailed design in the GRADP regarding the proposed access to these properties, likely development staging and indicative timing of access closure. **Action:** Ensure access to these properties is retained until they are developed. **Action:** Consider development staging implications if these lots are developed 'out-of-sequence' and how infrastructure is to be co-ordinated and provided, and access maintained if required.

Key issues	Response
9. Refer to Shared path and footpath principles established in TIAR.	**Action:** Shared path network design principles as established in the TIAR are to be adopted. **Action:** Ensure the GRADP provides relevant shared path and footpath connections to the existing networks.

Contaminated Land (Section 3.4)

Key issues	Response
1. A Preliminary Risk Screen Assessment (PRSA) is mandatory for all 'Medium' contamination risk properties, being 1, 2, 8, 10 Glismann Road and 11 Mahon Avenue. A PRSA must be provided with any planning permit application for these sites.	**Action:** Include relevant commentary in the GRADP.

Cultural Heritage (Section 3.5)

Key issues	Response
1. The GRADP is not considered sensitive for Aboriginal cultural heritage under the Aboriginal Heritage Regulations 2007.	Confirmed with current mapping.
2. The standard assessment confirmed no Aboriginal cultural heritage places exist within the GRADP, and a complex assessment is not required.	Regulations unchanged.
3. Consultation with the Bunurong Land Council may be needed to confirm findings, but no mapped areas of cultural heritage sensitivity exist within the GRADP.	**Action:** Future applicants may wish to consult with the Bunurong Land Council to confirm CHMP findings.
4. Final approval of the CHMP should be confirmed, along with compliance with the 2018 regulations.	**Action:** CHMP approval confirmed.

Drainage (Section 3.6)

Key issues	Response
1. The minor drainage network will be provided by existing Melbourne Water pipes, alongside new subdivision pipes.	**Action:** Confirm network details and capacity with Melbourne Water and Council.
2. The major overland flow path varies between 4.5 metres wide at the northern end of the GRADP through to 15 metres wide at the southern end.	**Action:** Confirm network, capacity and flow path details with Melbourne Water and Council. **Action:** Confirm developable area implications for landholdings.
3. Minor adjustments to the lower end of the Melbourne Water drain will be required to ensure proper grading.	**Action:** Confirm proposal acceptable to Melbourne Water and Council.
4. New developments should have a minimum floor level of 300mm above the 100-year flood level to ensure flood resilience.	**Action:** Confirm current flood mapping details and minimum floor levels.
5. Determine with DTP and Council whether any modifications were made to the stormwater network during the signalised intersection construction.	**Action:** Consult with DTP, Melbourne Water and Council.
6. Establish whether the proposed stormwater infrastructure impacts native vegetation.	**Action:** Include likely drainage network alignments on site analysis plan, overlaid with vegetation coverage to determine impacts.

Flood risk (Section 3.6)

Key issues	Response
1. Flood risk mitigation is required for four Old Princes Highway properties, with a levee (Alignment 1) as the preferred alternative.	**Action:** Determine location of levee and whether there are any impacts to vegetation, access to properties, or the O'Neil Recreation Reserve masterplan. **Action:** Confirm with DTP and DEECA regarding the placement of retarding basin.
2. Water quality treatment options must be confirmed, with a minimum requirement of a sediment pond within the road reserve.	**Action:** Confirm proposal suitability with Melbourne Water and Council.
3. Future floor levels should include a freeboard above 49.44 m AHD	**Action:** Confirm current flood mapping details and minimum floor levels.
4. Potential impacts of the levee extending into the recreation reserve, fill placement, and overall feasibility require further review, together with consent from affected landholders and authorities.	**Action:** Confirm with Council and Melbourne Water regarding proposed levee suitability and alignment. **Action:** Determine location of levee and whether there are any impacts to vegetation, access to properties, or the O'Neil Recreation Reserve masterplan.

Development Contributions (Section 3.7)

Key issue	Response
Contributions framework established by DCPO5. GRADP to ensure delivery and timing of infrastructure items is achieved.	**Action:** GRADP to include timing and delivery of infrastructure. **Action:** GRADP to provide additional infrastructure details as appropriate.

5. Design Response

The Key Issues as outlined in this paper, and as summarised in Section 4 have led to development of a framework for the design response to the GRADP. This provides a high-level overview of how the opportunities and constraints identified through the background document review and site analysis process can be addressed in the GRADP. The plan highlights key design influences that will shape the GRADP.

The Design Response Plan identifies:

1) **Visually sensitive areas** – includes land with slopes assessed as Steep or Extremely Steep, land on or adjacent to ridgelines, and areas with high overall landscape values. These areas should be protected from intensive development, and future subdivision and housing designed to respond sensitively to topography, vegetation and landscape character.
2) **Interfaces with adjoining land uses** - including the Old Princes Highway, O'Neil Recreation Reserve, Beaconsfield Primary School, and the proposed local park. Development should activate adjoining spaces and provide passive surveillance to enhance safety and amenity.
3) **Restricted access** - areas along the Glismann Road (RD-02) crest, where access limitations are necessary to ensure safe vehicle movements for existing and future dwellings, and where the creation of new access points is restricted.
4) **Connectivity** – identifying key connections required to facilitate coordinated subdivision and access between properties. These connections should be designed to respond to topographic constraints, provide alternative connections where feasible, and ensure an integrated local street network.

The Design Response Plan should be read alongside DCP05, relevant DCP project sheets, and other sections of this Key Issues Paper. It should be used to guide the preparation of the Development Plan.

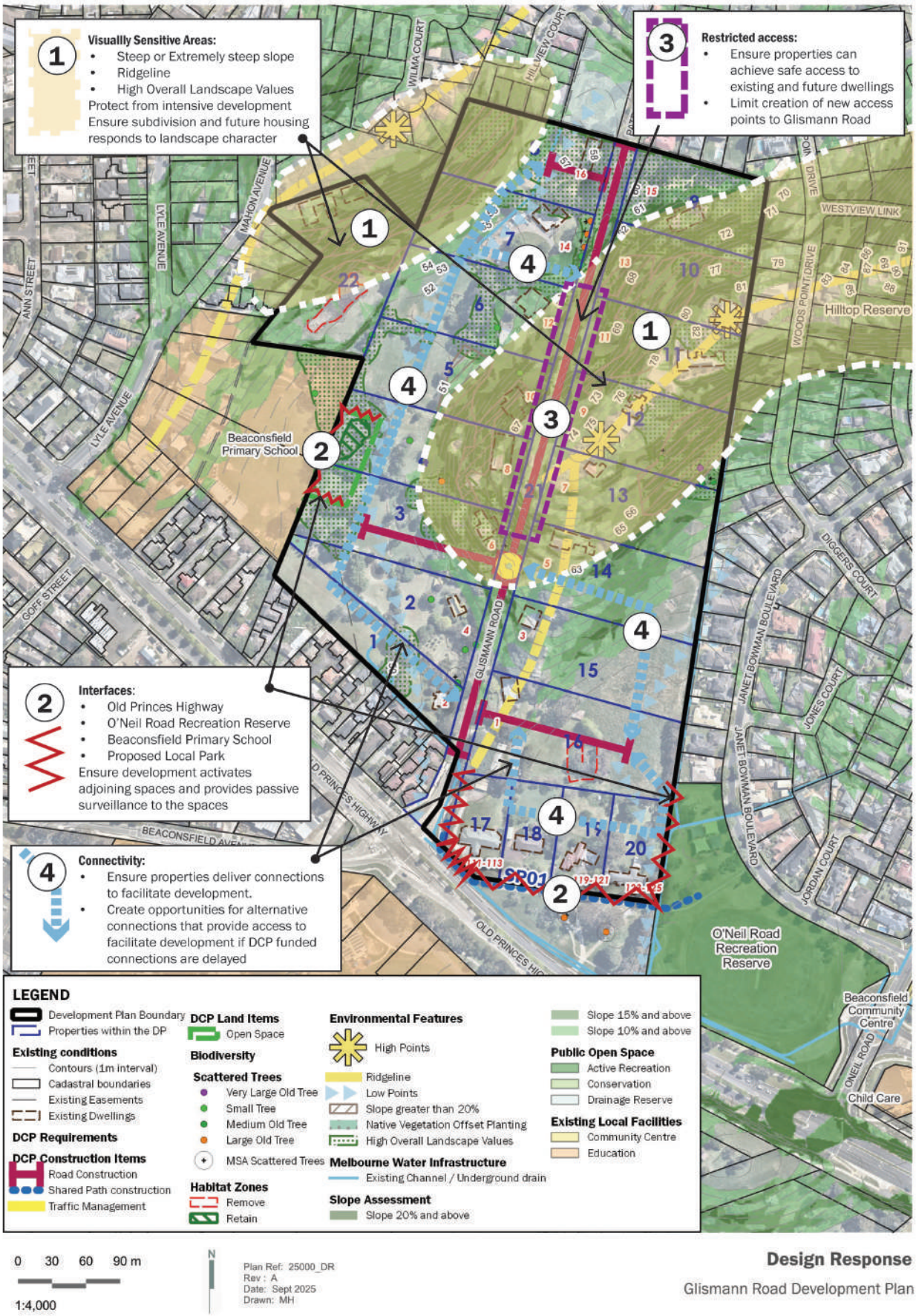


Figure 29: Design Response

Published: November 2025
© Cardinia Shire Council
(ABN: 32 210 906 807)

Civic Centre
20 Siding Avenue, Officer Victoria 3809
PO Box 7, Pakenham Victoria 3810
(DX81006)

Phone: 1300 787 624
Email: mail@cardinia.vic.gov.au
Web: www.cardinia.vic.gov.au

National Relay Service (NRS)
TTY: 133 677 (ask for 1300 787 624)

Speak and Listen (speech-to-speech relay)
1300 555 727 (ask for 1300 787 624)



Translator Interpretation Service
131 450 (ask for 1300 787 624)