Planning Services
Application for Planning Permit

Knox City Council

Office Use Only	
Application No:	Date Lodged: / /

Is this the right form for me?

Use this form to apply for a planning permit. This form must be accompanied by the appropriate application fee, documents & plans. **You can login to Council's Online Services to apply and pay online** www.knox.vic.gov.au/planning

Information marked with an asterisk (*) are mandatory and must be completed.
If the space provided on the form is insufficient, attach a separate sheet.

Privacy Statement

The personal information requested on this form is being collected by Knox City Council (Council) for the purpose of assessing your application under the Planning and Environment Act 1987. Any material submitted with this application, including plans and personal information, will be made available for public viewing, including electronically, and copies may be made for interested parties for the purpose of enabling consideration and review as part of a planning process under the Planning and Environment Act 1987. The personal information will be used by Council for that primary purpose or directly related secondary purposes. The information may also be used to update Council databases to assist Council in discharging its functions or providing services. If the information is not collected, your application can not be processed. Requests for access to and/or amendment of personal information should be made to Council's Chief Privacy Officer.

The Land

Address of the land. Complete the Street Address and one of the Formal Land Descriptions.

Street Address*

Unit No:	St. No: 621	St. Name: Burwood Highway

Suburb/Locality: Knoxfield | Post Code: 3180

Formal Land Description*
Complete either A or B
This information can be found on the certificate of title.

A Lot No: ◯ Lodged Plan ◯ Title Plan ◯ Plan of Subdivision No:

OR

B Crown Allotment No: 2258 | Section No:

Parish/Township Name: Scoresby

If this application relates to more than one address, please attach details.

The Proposal

You must give full details of your proposal and attach the information required to assess the application. Insufficient or unclear information will delay your application.

For what use, development or other matter do you require a permit?*

Creation of access to a road in a Road Zone Category 1 and removal of native vegetation.

Provide additional information on the proposal, including: plans and elevations; any information required by the planning scheme, requested by Council or outlined in a Council planning permit checklist, and if required, a description of the likely effect of the proposal. Checklists can be found at www.knox.vic.gov.au/planning

Estimated cost of development for which the permit is required*

Cost $ Less than $100,000

⚠ You may be required to verify this estimate
Insert '0' if no development is proposed

If the application is for the land within **metropolitan Melbourne** (as defined in section 3 of the *Planning and Environment Act 1987*) and the estimated cost of development exceeds $1 million (adjusted annually by CPI) the Metropolitan Planning Levy **must** be paid to the State Revenue Office and a current levy certificate **must** be submitted with the application.

Visit www.sro.vic.gov.au for information.

Existing Conditions

Describe how the land is used and developed now*

Eg. vacant, three dwellings, medical centre with two practitioners, licensed restaurant with 80 seats, grazing.

Vacant.

Provide a plan of the existing conditions. Photos are also helpful.

Title Information

Does the proposal breach, in any way, an encumbrance on title such as a restrictive covenant, section 173 agreement or other obligation such as an easement or building envelope?

Encumbrances on Title*

- ○ Yes (if 'yes' contact Council for advice on how to proceed before continuing with this application.)
- ○ No
- ✓ Not applicable (no such encumbrance applies).

Provide a full, current copy of the title for each individual parcel of land forming the subject site.
(The title includes: the covering 'register search statement', the title diagram and the associated title documents, known as 'instruments' eg restrictive covenants.)

Applicant and Owner Details

Provide details of the applicant and the owner of the land.

Applicant*
The person who wants the permit and will be the primary contact for the application.

[redacted]

Organisation (if applicable): Development Victoria C/O Collie Pty Ltd

Postal Address

Unit No:

St. No: Level 16, 356

If it is a PO Box, enter the details here:

St. Name Collins Street

Suburb/Locality: Melbourne

State: VIC

Postcode: 3000

Please provide at least one contact phone number *

Business Phone: 8698 9300

[redacted]

Mobile Phone:

Fax:

Owner*
The person or organisation who owns the land

Where the owner is different from the applicant, provide the details of that person or organisation.

Please check that the owner

Name:

Title:

First Name:

Surname:

Organisation (if applicable): Development Victoria

Postal Address

Unit No.:

St. No.: Level 9, 8

If it is a PO Box, enter the details here:

St. Name Exhibition Street

Suburb/Locality: Melbourne

State: VIC

Postcode: 3000

details are consistent with the Certificate of Title.

Owner's Signature (optional):

Date:
day / month / year

Declaration

This form must be signed by the applicant*

I declare that I am the applicant; and that all the information in this application is true and correct and the owner (if not myself) has been notified of the permit application.

Remember it is against the law to provide false or misleading information, which could result in a heavy fine and cancellation of the permit

[redacted]

Date: 1/4/2021
day / month / year

Checklist

Have you:

- [x] Filled in the form completely?
- [x] Paid or included the application fee?

⚠ Applications require a fee to be paid. Contact Council to determine the appropriate fee.

- [x] Provided all necessary supporting information and document?
  - [x] A full and current copy of the information for each individual parcel of land forming the subject site.
  - [x] A plan of existing conditions.
  - [x] Plans showing the layout and details of the proposal.
  - [x] Any information required by the planning scheme, requested by council or outlined in a council planning permit checklist.
  - [x] If required, a description of the likely effect of the proposal (eg traffic, noise, environmental impacts).
  - [x] If applicable, a current Metropolitan Planning Levy certificate (a levy certificate expires 90 days after the day on which it is issued by the State Revenue Office and then cannot be used). Failure to comply means the application is void.
- [x] Completed the relevant Council planning permit checklist?
- [x] Signed the declaration (section 7)?

Pre-application Advice

Has there been a pre-application meeting with a Council planning officer?

- ○ Yes — If 'yes, with whom?
- ⊘ No — Date:
  day / month / year

Need help?

If you need help with your application, general information about the planning process and checklists can be found at www.knox.vic.gov.au/planning or you can contact Knox Planning Services on 9298 8125.

Lodgement

Online:
An Application can be submitted electronically through Council's Online Services portal. This will save you time and money, as you won't need to print out any plans and documents and you can pay your application fees online. Visit www.knox.vic.gov.au/planning

In person or by post:
Knox City Council Planning Services
511 Burwood Highway
Wantirna South VIC 3152

1 April 2021

Knox City Council
Town Planning Department
511 Burwood Highway
WANTIRNA SOUTH VICTORIA 3152

PLANNING PERMIT APPLICATION
Access to a Road in a Road Zone Category 1 and Removal of Native Vegetation
621 Burwood Highway, Knoxfield

Dear Madam / Sir,

We write on behalf of Development Victoria (the applicant) in relation to this planning permit application for:

- the creation of temporary access to Scoresby Road from land at 621 Burwood Highway, Knoxfield (the subject site);
- the removal of native vegetation.

In order to assist you in the consideration of this application, please find enclosed the following information.

- A completed Application for a Planning Permit form.
- Relevant title information.
- A letter from One Mile Grid dated 23 November 2020 to the Department of Transport, seeking its agreement to the proposed temporary access location.
- A positive response to the above letter from the Department of Transport dated 27 November 2020.
- A 'Knoxfield Residential Development Scoresby Road Temporary Access Functional Layout Plan',FLP100, revision B, prepared by one mile grid.
- A plan dated February 2021 by MDG Landscape Architects indicating trees to be removed and retained (also forming an indicative plan (FOR INFORMATION PURPOSES ONLY) showing the temporary portable sales centre (with its access ways and car parking), which is exempt from the requirement for a planning permit for both use and buildings and works.
- An Ecological Assessment: Sales Centre Development Area, March 2021 prepared by Ecocentric Environmental Consulting.

Please note, payment of the application fee has been made online at the time of lodgement through the Knox City Council planning permit application portal.

1 Access to a Road in a Road Zone

As stated in the enclosed letter prepared by one mile grid, Development Victoria is seeking to construct a temporary portable sales centre to promote the future sale of house / land packages on abutting land in a concurrent planning permit application for subdivision. In order to gain vehicle access to the temporary sales centre and to remove conflict with the construction and use of the permanent new intersection at Scoresby Road / Applegum Crescent, a new temporary vehicle access point is required from Scoresby Road.

Scoresby Road, under the Knox Planning Scheme (the Scheme) is identified as a Road Zone Category 1. As a result, a planning permit is required under clause 52.29-2 of the Scheme to construct the access to Scoresby Road from the subject site. For further information on the exact location of the proposed vehicle access point, please refer to the FLP prepared by one mile grid and enclosed as part of this application.

Under clause 52.29-5 of the Scheme, an application is exempt from the notice requirements of section 52(1) (a), (b) and (d), the decision requirements of section 64(1), (2) and (3) and the review rights of section 82(1) of the Act.

In considering this request for the construction of access to a road in Road Zone Category 1, it should be noted that the proposed access to Scoresby Road is temporary in nature and only required to service access to the temporary sales centre. As a result, following the cessation of the operation of the sales centre, the vehicle access proposed in this application will be returned to its previous state with access removed to Scoresby Road. It is expected that the temporary sales centre will operate for up to four years, which provides an indication of when the access to Scoresby Road will revert to its previous condition.

It should be noted also and as stated in the enclosed response, the Department of Transport has provided in principle support for the application noting the proposed location of the temporary access is "*considered to be acceptable for a temporary low-volume crossover in principle*".

Lastly and in relation to the temporary sales centre, as the structure is both temporary and portable, a planning permit is not required under clause 62.01 of the Scheme for the use of the sales centre. Similarly, a planning permit is not required under clause 62.02 of the Scheme for the buildings and works associated with the sales centre.

2 Removal of Native Vegetation

Clause 52.17 relates to native vegetation. The purpose generally of clause 52.17 is to protect and conserve native vegetation by either avoiding or minimising removal and ensuring appropriate offsets.

Under clause 52.17-1, a planning permit is required to remove, destroy or lop native vegetation.

As detailed in the Ecological Assessment: Sales Centre Development Area, February 2021 prepared by Ecocentric Environmental Consulting included with this application, it is unavoidable that some native vegetation will have to be removed along Scoresby Road to allow for the construction of the temporary vehicle access.

It should be noted as confirmed in the ecological assessment, the area of native vegetation proposed for removal is considered of low habitat significance, with no significant flora or fauna expected to be impacted as a result of the temporary sales centre development.

It should also be noted, that whilst an additional three trees located on the north-west corner of the intersection of Burwood Highway and Scoresby Road are identified for removal, these trees are non-native and therefore, do not require a planning permit for removal.

For the exact location of the native vegetation proposed for removal as part of this application, please refer to the maps in section 9.6 of the Ecological Assessment enclosed as part of this application as well as the tree removal and retention plan prepared by MDG Landscape Architects. It should be noted that whilst the MDG plan is included for endorsement, this endorsement relates only to tree removal and retention and not to the siting, design and development of the sales centre which does not require a planning permit.

We trust that the enclosed information is to your satisfaction and look forward to your consideration of this application. Please contact [redacted] is office should you have any queries.

Yours faithfully,

[redacted]

Collie Pty Ltd

[redacted]

REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

VOLUME 12014 FOLIO 690 Security no : 124088242783K
Produced 20/02/2021 11:00 PM

CROWN GRANT

LAND DESCRIPTION

Crown Allotment 2258 Parish of Scoresby.
PARENT TITLE Volume 11770 Folio 351

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
DEVELOPMENT VICTORIA of LEVEL 9 8 EXHIBITION STREET MELBOURNE VIC 3000

ENCUMBRANCES, CAVEATS AND NOTICES

Any crown grant reservations exceptions conditions limitations and powers noted on the plan or imaged folio set out under DIAGRAM LOCATION below. For details of any other encumbrances see the plan or imaged folio set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE TP961547B FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

DOCUMENT END

Certified by David R Boyle, Acting Surveyor-General, SPEAR Ref: S065822P, TP Number: TP961547B, 01/08/2017.

TITLE PLAN
PLAN FOR CROWN GRANT PURPOSES

EDITION 1

TP961547B

LOCATION OF LAND

PARISH : SCORESBY
CROWN ALLOTMENT : 2258

MGA94 Co-ordinates (of approx. centre of land in plan) E 346600 N 5806970 ZONE: 55 GDA 94

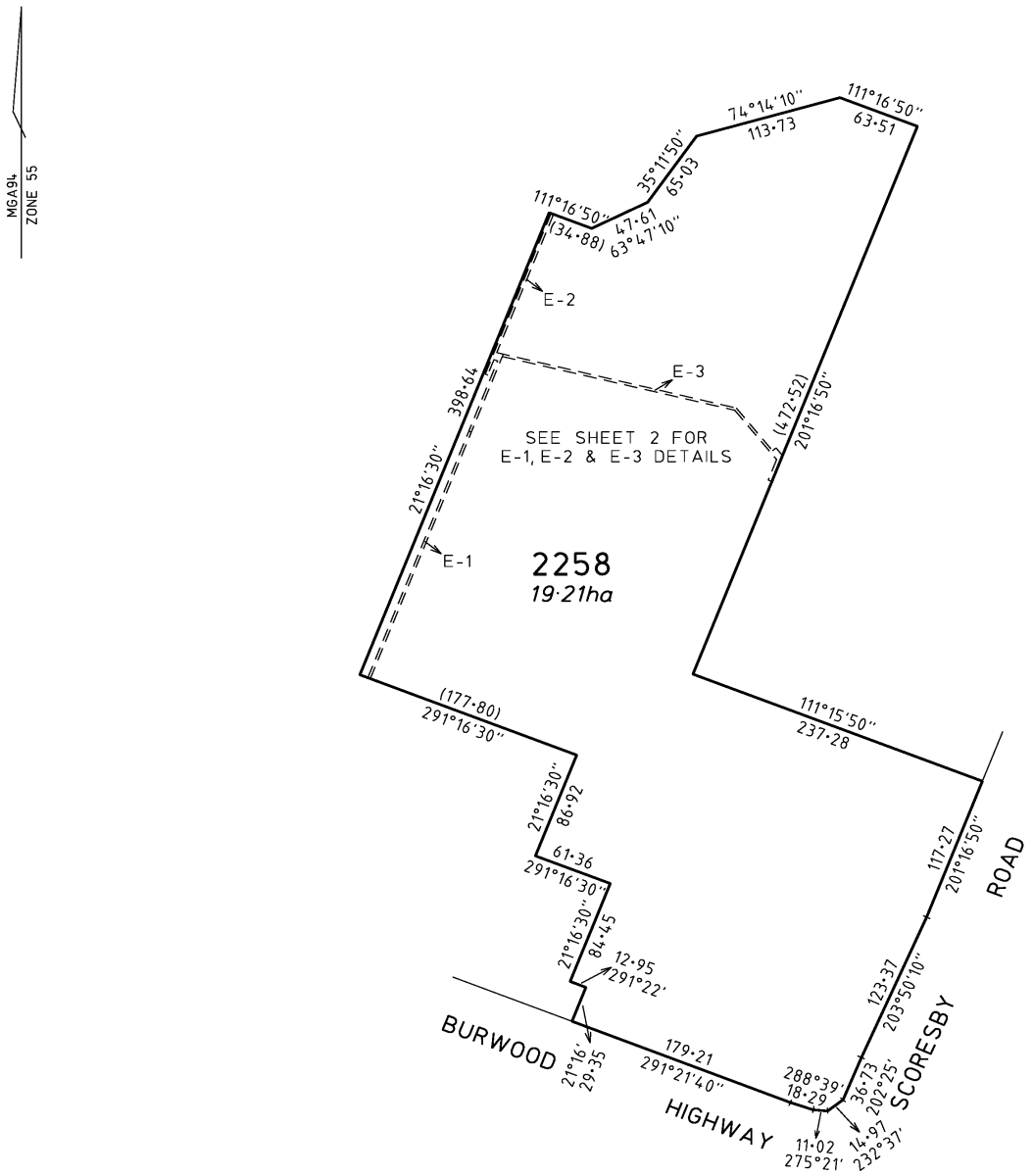
DEPTH LIMITATION : 15 Metres

NOTATIONS

SUBJECT TO ANY RESERVATIONS, EXCEPTIONS, CONDITIONS AND POWERS NOTED ON SHEET 3 OF THIS PLAN.

THIS PLAN HAS BEEN PREPARED BY LAND USE VICTORIA FOR TITLE DIAGRAM PURPOSES.

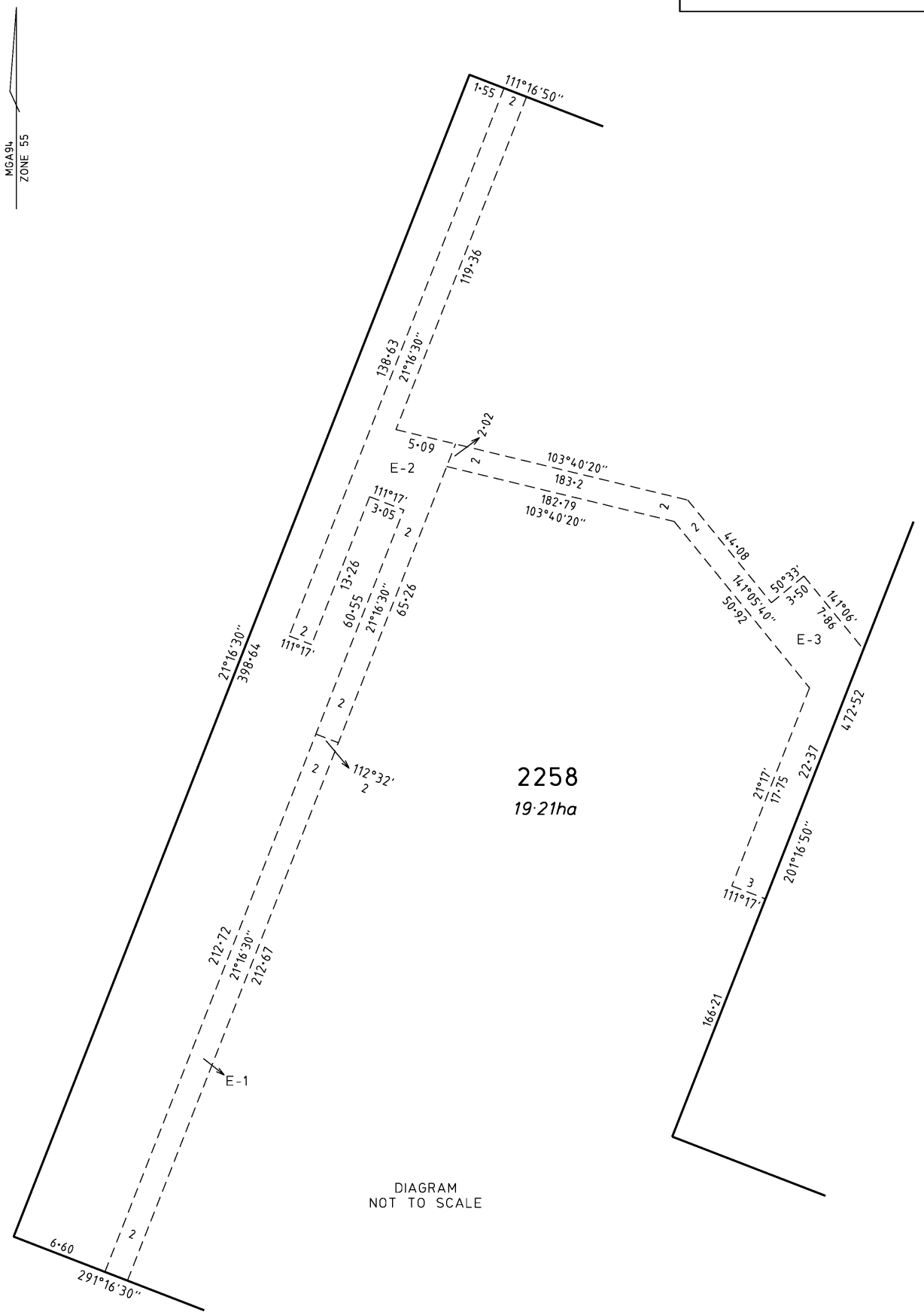
Checked by: Kevin Bond
Date: 02 / 08 / 2017
Assistant Registrar of Titles



DRAWN: RNB 01/02/2017	EXAMINED: AF 14/2/2017	CAD FILE: TP961547B.DGN	ORIGINAL SHEET SIZE: A3	SHEET 1 OF 3
OFFICE OF SURVEYOR-GENERAL VICTORIA DEPARTMENT OF ENVIRONMENT, LAND, WATER AND PLANNING	SCALE 1:4000	40 0 40 80 120 160 LENGTHS ARE IN METRES	FILE REF: F2005/00197	
	Prepared from: VDP, S250(A6) AND OP123420A		David R Boyle Acting Surveyor-General, 01/08/2017	

Certified by David R Boyle, Acting Surveyor-General, SPEAR Ref: S065822P, TP Number: TP961547B, 01/08/2017.

TP961547B



OFFICE OF SURVEYOR-GENERAL VICTORIA DEPARTMENT OF ENVIRONMENT, LAND, WATER AND PLANNING	SCALE -	0 LENGTHS ARE IN METRES	ORIGINAL SHEET SIZE: A3 / SHEET 2
			David R Boyle Acting Surveyor-General, 01/08/2017

RESERVATIONS EXCEPTIONS CONDITIONS AND POWERS

The reservation to the Crown of:

- any minerals as defined in the *Mineral Resources (Sustainable Development) Act 1990* and petroleum as defined in the *Petroleum Act 1998* (the "reserved minerals");
- rights of access to any part of the land to search and obtain the reserved minerals; and
- rights of access to any part of the land for pipe-lines, works and other purposes necessary to obtain and convey the reserved minerals on and from the land;

The right to resume the said land for mining purposes under Section 205 of the *Land Act 1958*; and

The right of a licensee under the *Mineral Resources (Sustainable Development) Act 1990* or any corresponding previous enactment, to enter on the land and do work, within the meaning of that Act, and to erect and occupy mining plant or machinery on the land, in the same manner and under the same conditions and provisions as such licensee currently has on Crown land, provided compensation is paid under Part 8 of that Act for surface damage to the lands.

The condition that the grantee and its successors in title will allow the full and free right to and for the owner or owners or occupier or occupiers for the time being of allotment 2259 in the parish aforesaid at all times hereafter to make cut construct maintain and repair as such owner or owners or occupier or occupiers may deem necessary or desirable all drains and other like works upon over along or under that portion of the land granted shown marked E-1 and E-2 in the said plan.

The right of the Knox City Council, and its successors in title for the time being concerned with the control and management of public or municipal watercourses or drains in the vicinity of the land hereby granted and its officers agents servants contractors and workmen to cut make and construct and from time to time use maintain repair cleanse and enlarge a drain for the purpose of conveying surface and other waters from any adjoining or adjacent land upon over under and along that portion of the land hereby granted shown marked E-2 and E-3 in the said plan.

onemilegrid
TRAFFIC ENGINEERING

ABN: 79 168 115 679
56 Down Street
COLLINGWOOD, VIC 3066
www.onemilegrid.com.au

23 November 2020

Department of Transport – South-East Region

Via email: MSEPlanning@roads.vic.gov.au

Attention: MSE Planning

Knoxfield Residential Estate

Temporary Sales Office – Site Access Assessment

Dear MSE Planning,

Introduction

onemile**grid** are assisting Development Victoria with the proposed development of a site on the north-west corner of the intersection between Burwood Highway and Scoresby Road, Knoxfield (621 Burwood Highway, Knoxfield). The development application has not been lodged yet with Council and is still in the masterplanning stage.

We are currently providing design assistance with the construction of a temporary sales office which will be located within the southern portion of the site, and proposed vehicle access to Scoresby Road. For reference, the context of the overall site and the proposed temporary sales office is shown in Figure 1.

The overall site has road frontages to only Burwood Highway, on its southern abuttal, and Scoresby Road, on its eastern abuttal. There is an existing crossover and gated vehicle access to the site from Scoresby Road, opposite the unsignalised intersection with Applegum Crescent.

The proposed masterplan for the estate is to include upgrading of the Applegum Crescent intersection as a four-leg signalised intersection, providing access to the site; with a new left-in/left-out intersection to Burwood Highway. These new intersections will be constructed in line with master planned development of the site.

Figure 1 Site Context and Temporary Sales Office Location

Proposed Temporary Sales Office

It is proposed to construct a temporary sales office in the south-eastern corner of the site. There will be no display village associated with the office. The sales office will be staffed 7 days per week, with typically only a single sales consultant on-site, and up to 2 staff present on weekends. The sales office will be open between 11:00am and 5:00pm (6:00pm daylight savings time).

It is proposed to provide vehicle access to the temporary sales office via a new temporary crossover to Scoresby Road. The new crossover will be located approximately 60m to the north of the intersection with Burwood Highway, as shown in Figure 2.

The proposed crossover location is positioned adjacent the right turn lane for the northern leg of the intersection with Burwood Highway, and therefore will be restricted to **left-in/left-out only**. The access point will require the removal of one low value tree along Scoresby Road.

Figure 2 Proposed Temporary Sales Office Crossover Location

Temporary Site Access Assessment

onemile**grid** has reviewed the proposed location of the temporary crossover and considers it to be in an acceptable location, with due consideration given to the following:

- The proposed crossover will provide access to the sales office only and thus will be expected to have low traffic generation, with most movements made on a weekend. Even during peak periods, limited traffic generation is anticipated. Weekday movements will be limited, and typically outside of the morning and evening peak periods;
- The accessway will minimise the removal of the existing trees along the site frontage;
- There is sufficient space to construct a double width crossover in this location, ensuring that vehicles turning into the site will not be required to wait on Scoresby Road for an exiting vehicle;
- The Scoresby Road access point avoids vehicle access to Burwood Highway, which carries higher traffic volumes;
- The proposed access point will allow access to be retained during construction of the upgraded signalised intersection with Applegum Crescent, which will result in the removal of the existing site access point (new intersections projected for construction by mid-2021, subject to planning and design);
- The proposed crossover will be restricted to left-in/left-out only, therefore not impacting on southbound traffic on Scoresby Road;
- With an approximate 60m separation to the intersection with Burwood Highway, there will be sufficient time and distance for northbound traffic on Scoresby Road to observe a vehicle indicating to turn into the site;
- There is precedence for direct access to Scoresby Road, with a number of properties opposite, and to the north with direct access;
- The proposed access location is considered to be preferred to the existing access location, which effectively forms an unsignalised cross-intersection with Applegum Crescent; and
- The proposed crossover is temporary and will not be required once appropriate access is available from the proposed intersections with Scoresby Road or Burwood Highway.

The anticipated traffic movements associated with a temporary sales office are reflective of the staff arriving in the morning and departing in the evening, and then the customers/visitors accessing the site throughout the opening hours. The visitation of customers to the sales office are projected to be spread throughout the day with a higher percentage occurring on weekends. It is noted that the sales office will generally not be open during the peak commuter periods (though the PM commuter peak may commence prior to closing during daylight savings hours).

With the projected spread of traffic movements to the proposed use, and being typically closed during the weekday commuter peak periods, it is anticipated that the proposed use of the site access will not create undue impacts to the operation of Scoresby Road and the broader surrounding road network.

Importantly, it is understood that a permit for the proposed Land Sales office is not required (due the temporary nature of the structure and it being located on the land for sale). Therefore, it is understood that the sales office could operate using the existing access point to Scoresby Road with no permit requirements. Due to the location of the existing crossover opposite Applegum Crescent (and potential safety issues associated with conflict between intersection traffic and sales office traffic), and noting that the Applegum Crescent intersection will be upgraded with the early stages of development (and with the existing access point located within the area of construction), it is preferred to relocate the access point away from this intersection, and for the reasons identified above, the location selected is considered to be the most appropriate.

We therefore request a review of the proposed temporary sales office access location, in consideration of the above, with a view to providing approval to the proposed access (subject to preparation of a concept plan for the access point).

[redacted]

Yours sincerely

Department of Transport

GPO Box 2392
Melbourne, VIC 3001 Australia
Telephone: +61 3 9651 9999
www.transport.vic.gov.au
DX 201292

[redacted]

DEPARTMENT REFERENCE NO: **ENQ 912/20**
PROPERTY ADDRESS: **621 BURWOOD HIGHWAY, KNOXFIELD VIC 3180**

Pre-application enquiry response

Thank you for your pre-application documentation received by the Department of Transport (Head, Transport for Victoria) on 26/10/2020 and 23/11/2020. Your pre-application enquiry has been given the above reference number which should be quoted in any further correspondence and contact with the Department.

The proposal is for the construction of a temporary vehicle crossover (restricted to left-in/left-out movements) on Scoresby Road, to service a temporary sales office that is proposed to operate during stage 1 of the overall development of the site. The Department understands that the sales office will be in operation 7 days per week from 11.00am until 5.00pm or 6.00pm and will have 1-2 staff members on site at a time. The Department further understands that the proposed temporary crossover will provide access to a gravel parking area with approximately 16 parking spaces.

The (revised) proposed location for the temporary crossover is approximately 60m north of the Burwood Highway/Scoresby Road intersection. The Department understands this location has been chosen in order to not interfere with the first stage of the proposed development. The proposal to restrict movements to left-in and left-out only is necessary because of the road environment including the beginning of a right-turn lane for the Burwood Highway/Scoresby Road intersection directly across the road. Allowing right-turn movements into the site would be confusing for southbound road users on Scoresby Road who would not expect vehicles to be slowing to a stop in this location if they had their right-turn indicator on: other vehicles would expect the turning vehicle to instead be turning at the intersection.

The proposal triggers a planning permit at clause 52.29 of the Knox Planning Scheme. Council will forward the application to the Head, Transport for Victoria under Section 55 of the *Planning and Environment Act 1987* as part of its notification of referral authorities.

The proposed location is considered to be acceptable for a temporary low-volume crossover in principle. Sightlines along Scoresby Road to the south are good, and from the pre-application documents provided, the proposal will not generate large amounts of traffic. Due to the crossover providing access to 16 car parks, a passing area is required in accordance with the Knox Planning Scheme. The crossover and driveway should be:

- Formed to facilitate simultaneous entry and exit movements by B99 vehicles.
- Located where it is not directly abutting the break in chevron linemarking on Scoresby Road, which is designed to allow right-turn movements into individual properties on the opposite (eastern) side of Scoresby Road.
- Include physical barriers such as a splitter island to prevent right-turn movements into and out of the site.
- Include appropriate signs and line-marking to direct traffic from within the site to turn left-out only.
- Be sealed for an appropriate distance within the site to ensure that gravel does not migrate onto Scoresby Road.

Once a design layout has been finalised, the Department would be happy to provide initial feedback prior to lodgement of a planning permit with Knox City Council if desired. As part of a planning permit application, please include more detail on the amount of traffic that is expected to be generated by the proposal and how the access point will interact with the internal parking layout of the temporary sales office.

Should you have any enquiries regarding this matter, please contact [redacted] or mseplanning@roads.vic.gov.au.

Yours sincerely

[redacted]

Ecological Assessment:

Sales Centre Development Area

609-619 & 621 Burwood Highway, Knoxfield

March 2021

ECOCENTRIC Environmental Consulting
2B / 73-85 Haines Street
North Melbourne 3051
m: 0410 564 139
e: ecocentric@me.com

TABLE OF CONTENTS:

LIST OF FIGURES:

LIST OF TABLES:

DOCUMENT CONTROL

Report title	Ecological Assessment: Sales Centre Development Area 621 & 609-619 Burwood Highway, Knoxfield
Client	Development Victoria
[redacted]	
Date	19th March 2021

DOCUMENT HISTORY

Revision	Recipient	Date
01	Preliminary assessment	(Ecocentric 2015)
02	2017 assessment	(Ecocentric 2018)
03	2020 assessment	19 March 2021

DOCUMENT PREPARATION

[redacted]

[redacted]

ecocentric environmental consulting

2B / 73 Haines Street
North Melbourne 3051
[redacted]
ecocentric@me.com

ACRONYMS

BoM	Bureau of Meteorology
CaLP Act 1994 (Vic)	Victorian Catchment and Land Protection Act 1994
Cwlth	Commonwealth
DAWE	Federal Department of Agriculture, Water and the Environment (formerly DoEE)
DELWP	Victorian Department of Environment, Land, Water and Planning (formerly DEPI)
EPBC Act 1999 (Cwlth)	Commonwealth Environment Protection and Biodiversity Conservation Act 1999
FFG Act 1988 (Vic)	Victorian Flora and Fauna Guarantee Act 1988
GIS	Geographical Information System (mapping system)
MNES	Matter of National Environmental Significance
PPWCMA	Port Phillip and Westernport Catchment Management Authority
VBA	DELWP's Victorian Biodiversity Atlas
Wildlife Act 1975 (Vic)	Victorian Wildlife Act 1975

SPECIES SIGNIFICANCE

Significant threatened species are defined as taxa listed under:

- The EPBC Act 1999 (Cwlth);
- The FFG Act 1988 (Vic);
- DELWP's Advisory List of Rare or Threatened Plants in Victoria, either as 'endangered', 'vulnerable', or 'rare' (but not those included under the 'poorly known' category);
- DELWP's Advisory List of Threatened Vertebrate Fauna in Victoria, either as 'critically endangered', 'endangered' or 'vulnerable' (but not those included under the 'near threatened' or 'data deficient' categories); and/or
- DELWP's Advisory List of Threatened Invertebrate Fauna in Victoria, either as 'critically endangered', 'endangered' or 'vulnerable' (but not those included under the 'near threatened' or 'data deficient' categories).
-

NATIVE VEGETATION

The Victorian Planning Provisions identify *native vegetation* as flora species that are native to Victoria. This includes species that are indigenous to the project's location and the region, as well as species that may be found further afield but within the state of Victoria. Native vegetation is defined under the *Guidelines 2017* policy (DELWP 2017) as follows:

A **patch** of native vegetation is:

- an area of vegetation where at least 25 per cent of the total perennial understorey plant cover is native, or
- any area with three or more native canopy trees where the drip line of each tree touches the drip line of at least one other tree, forming a continuous canopy, or
- any mapped wetland included in the 'Current wetlands map', available in DELWP systems and on-line GIS mapping layers (DELWP 2017).

A **large** or **small scattered tree** is a native species that is found in the canopy strata, that is greater than 3m in height, and that does not form part of a remnant patch. Scattered trees have two sizes, small and large:

- a small scattered tree is less than the large tree benchmark for the species in the relevant EVC;
- a large tree is equal to or greater than the large tree benchmark for the species in the relevant EVC;
- a standing dead tree that does not form part of a patch is treated as a large scattered tree if it has a trunk diameter of 40 centimetres or more at a height of 1.3 metres above the ground (DELWP 2017).

A **large canopy tree** is a native species that is found in the canopy strata, that is greater than 3m in height AND greater than or equal to the appropriate EVC benchmark DBH for a large tree, and which is found within a patch of native vegetation (as defined above).

The current *Guidelines 2017* policy recognises that large trees are often the oldest part of an ecological system and are difficult to replace in the short term. The loss of large trees (native trees that would be found in the canopy of respective EVC with a DBH that is greater than the benchmark DBH) must be Offset with an equivalent number of large trees in order to ensure there is no net loss of biodiversity value associated with clearing.

GLOSSARY

TERM	DEFINITION
Bioregion	Biogeographical areas that capture the patterns of ecological characteristics in the landscape or seascape, providing a natural framework for recognising and responding to biodiversity values.
Bioregional Conservation Status (BCS of an EVC)	A state-wide classification of the degree of depletion in the extent and/or quality of an Ecological Conservation Class (EVC) within a bioregion in comparison to the State's estimation of its pre-1750 extent and condition.
Canopy tree	See 'Native Canopy Tree'.
Diameter at Breast Height (DBH)	The diameter of the trunk of a tree measured over bark at 1.3m above ground level.
Drip Line	The outermost boundary of a tree canopy (leaves and/or branches) where the water drips onto the ground.
Ecological Vegetation Class (EVC)	A type of native vegetation classification that is described through a combination of its floristic, life form and ecological characteristics, and through an inferred fidelity to particular environmental attributes. Each EVC includes a collection of floristic communities (i.e. lower level in the classification that is based solely on groups of the same species) that occur across a biogeographical range, and although differing in species, have similar habitat and ecological processes operating.
EVC Benchmark	A standard vegetation quality reference point relevant to the vegetation type that is applied in habitat hectare assessments. Represents the average characteristics of a mature and apparently long-undisturbed state of the same vegetation type.
General Offset	A General Offset is required when the removal of native vegetation does not have a significant impact on any habitat for rare or threatened species.
General Habitat Unit	A General Habitat Unit is a measure of loss (and Gain in an Offset Site) in overall biodiversity value of native vegetation (both patch and scattered tree).
General Habitat Unit Offset target	A General Habitat Unit Offset target is that quantity of General Habitat Units that are to be secured to ensure that there is 'no net loss' in biodiversity value associated with the clearance of native vegetation (both patch or scattered tree). The General Habitat Units secured for an Offset target must meet the following attribute requirements: • *Minimum strategic biodiversity value score:* the strategic biodiversity value score of the Offset Credits must be at least 80 per cent of the strategic biodiversity value score of the native vegetation to be removed; • *Vicinity:* the offset must be located within the same Catchment Management Authority boundary or municipal district as the native vegetation to be removed.
Habitat Hectare	A site-based measure of quality and quantity of native vegetation that is assessed in the context of the relevant native vegetation type.
Habitat score	The score assigned to a Habitat Zone that indicates the quality of the vegetation relative to the EVC benchmark – sum of the site condition score and landscape context score usually expressed as a percentage or as a decimal fraction of 1.
Habitat Zone	A discrete area of native vegetation consisting of a single vegetation type (EVC) with an assumed similar quality. This is the base spatial unit for conducting a habitat hectare assessment.
High threat weed	Introduced plant species (including non-indigenous 'natives') with the ability to out-compete and substantially reduce one or more indigenous life forms in the longer term, assuming on going current site characteristics and disturbance regime.

TERM	DEFINITION
Location Category	There are three location categories that indicate the potential risk to biodiversity from removing a small amount of native vegetation. These location categories are identified by DELWP as follows: • Location 3 – includes locations where the removal of less than 0.5 hectares of native vegetation could have a significant impact on habitat for a rare or threatened species. • Location 2 – includes locations that are mapped as endangered EVCs and/or sensitive wetlands and coastal areas and are not included in Location 3. • Location 1 – includes all remaining locations in Victoria.
Mapped wetlands	Mapped wetlands may or may not be visible on the ground and are treated as a patch of native vegetation for the purpose of Offsets unless they are covered by a hardened, man-made surface, for example, a roadway. The location and extent of mapped wetlands are available in NVIM and other DELWP GIS mapping systems.
Matters of national Environmental Significance (MNES)	There are nine MNES identified under the EPBC Act 1999 (Cwlth): World Heritage properties; National Heritage places; wetlands of international importance (listed under the Ramsar Convention); listed threatened species and ecological communities; migratory species protected under international agreements (protected under international agreements); Commonwealth marine areas, the Great Barrier Reef Marine Park; nuclear actions (including uranium mines); and water resources in relation to coal seam gas development and large coal mining development.
Native Canopy Tree	A native canopy tree is either: • a mature tree (able to flower) that is greater than three metres in height and is normally found in the upper layer of the relevant vegetation type (EVC); or • a standing dead tree (stag) if it has a trunk diameter of 40 centimetres or more at a height of 1.3 metres above the ground.
Native Vegetation	Native vegetation is defined in the Victoria Planning Provisions as 'plants that are indigenous to Victoria, including trees, shrubs, herbs and grasses'.
No Net Loss	An outcome where a particular gain in the contribution to Victoria's biodiversity is equivalent to an associated loss in the contribution to Victoria's biodiversity from permitted clearing.
Offset	Protection and management (including revegetation) of native vegetation at a site to generate a gain in the contribution that native vegetation makes to Victoria's biodiversity. An Offset is used to compensate for the loss to Victoria's biodiversity from the removal of native vegetation. Offsets are to be secured in perpetuity with an on-Title conservation covenant.
Offset target	The amount of Offset required, measured in Habitat Units, to ensure permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity.
Protection (of a tree)	An area with twice the canopy diameter of the tree(s) fenced and protected from adverse impacts: grazing, burning and soil disturbance not permitted, fallen timber retained, weeds controlled, and other intervention and/or management if necessary, to ensure adequate natural regeneration or planting can occur.
Recruitment	The production of new generations of plants, either by allowing natural ecological processes to occur (regeneration etc.), by facilitating such processes, or by actively revegetating (replanting, reseeding). See revegetation.
Patch of native vegetation	A patch of native vegetation is either: • an area of vegetation where at least 25 per cent of the total perennial understorey plant cover is native; or • any area with three or more native canopy trees where the drip line of each tree touches the drip line of at least one other tree, forming a continuous canopy; or • any mapped wetland included in the current wetlands layer available in NVIM and other DELWP systems.

TERM	DEFINITION
Perennial Understorey	Plants that usually live for more than two years and are found in the lower layers of vegetation, like grasses and shrubs.
Plant cover	The proportion of the ground that is shaded by vegetation foliage when lit from directly above.
Revegetation	Establishment of native vegetation to a minimum standard in formerly cleared areas, outside of a remnant patch.
Scattered trees	A scattered tree is a native canopy tree (see 'Native Canopy Tree' above) that does not form part of a patch. Scattered trees have two sizes, small and large: • a small scattered tree is less than the large tree benchmark for the species in the relevant EVC; • a large tree is equal to or greater than the large tree benchmark for the species in the relevant EVC; • a standing dead tree that does not form part of a patch is treated as a large scattered tree if it has a trunk diameter of 40 centimetres or more at a height of 1.3 metres above the ground.
Species – General Offset Test	The species-general offset test measures the proportional impact from the removal of native vegetation on the habitat of rare or threatened species, according to the *Habitat importance maps*, and compares this to the species offset threshold.
Species Habitat Unit	A Species Habitat Unit is a measure of loss (and Gain in an Offset Site) in biodiversity value of native vegetation (both patch and scattered tree) for a particular rare or threatened species.
Species Habitat Unit Offset target	A Species Habitat Unit Offset is required when the removal of native vegetation has a significant impact on habitat for a rare or threatened species. Species Offsets must compensate for the removal of that particular species' habitat.
Strategic Biodiversity Value (SBV)	The Strategic Biodiversity Value is a rank of a location's complementary contribution to Victoria's biodiversity, relative to other locations across the state with regard to its condition, extent, connectivity and the support function it plays for species.
Tree Protection Zone (TPZ)	Calculated area (based on AS 4970-2009 (Protection of trees on development sites)) of soil volume required to encompass sufficient absorbing tree root systems to ensure the long-term survival of a tree. Trees may be considered as lost (and may require an Offset) if impacts of greater than 10% intrusion into the TPZ occur.
Wetlands	See 'Mapped wetlands'.

1. INTRODUCTION

Ecocentric Environmental Consulting (hereafter referred to as Ecocentric) was engaged by Development Victoria in December 2014 to undertake preliminary ecological assessments at two properties; 609-619 and 621 Burwood Highway, Knoxfield, Victoria (SPI: 2258\PP3478 and 1\TP152947). Further detailed assessments including targeted survey for threatened fauna were undertaken in 2016/2017, and again in order to inform this report in 2020.

The proposed development area consists of the entire 621 Burwood Highway parcel, and a subset of the 609-619 Burwood Highway parcel, hereafter collectively referred to as *the development area* (see Map 1 in Appendix 9.6). The development area is proposed to be developed predominantly for residential purposes, in accordance with the C160 planning scheme amendment under the *Planning and Environment Act 1987* (Vic), and with the establishment of a wetland and Water Sensitive Urban Design (WSUD) stormwater treatment system in the northern sector.

This report identifies ecological values and unavoidable impacts associated with the establishment of a sales and information centre, carparking and associated access within the area identified as *Future Mixed-Use Precinct* (see Figure 1 for details). The sales centre and associated infrastructure will be removed upon completion of the sale of the Lots, and the site redeveloped in accordance with later Permits for the development of the precinct.

This report therefore identifies biodiversity values and impacts associated with the sales and information centre, and is accompanied by similar reports for impacts on the Stage 1 – 7 development area (Ecocentric in preparation) and the development of the wetlands area at the northern end of the property (Ecocentric in preparation).

The objectives of the project were to:

- Document the ecological values of the site, including:
    - Significant flora and fauna species, and areas supporting potential habitat for them; and
    - Native vegetation, including ‘remnant patches’ and ‘scattered trees’.
- Map these ecological values and identify their quality and extent;
- Identify potential impacts to these ecological values from the proposed development, including implications under relevant legislation and policies; and
- Outline appropriate measures to avoid, mitigate or offset potential impacts.

1.1 SALES CENTRE DEVELOPMENT AREA

The broader development area adjoins an industrial estate to the west, Burwood Highway and commercial / office development to the south, Scoresby Road and Fairhills High School / residential development to the east, and the Blind Creek corridor and its associated recreation trail to the north. The topography of the development area slopes gently from the highest elevations in the southern

sector of the site (at ~97 m above sea level (ASL)) to the lowest elevations (~77 m ASL) in the northern sector of the site.

The development of the total property will be subject to a number of Permit applications. Three Permit applications are being lodged at this time, namely:

- Access to Scoresby Road and the removal of some vegetation within the Future Mixed-use Precinct development area;
- Subdivision of Stages 1 and 2 within the Stage 1 – 7 development area; and,
- Development of wetland habitat and Water Sensitive Urban Design (WSUD) stormwater treatment systems within the Wetlands area (see also Figure 1 below for details).

The majority of the Future Mixed-use Precinct development area comprises cleared land, and includes planted rows of exotic trees and planted native and non-native trees and shrubs. Some remnant indigenous trees and vegetation exist on site, and there are additionally trees planted at the property boundaries and within gardenbeds which are native to Victoria and that meet the definition of *native vegetation* under Clause 52.17 of the Knox Planning Scheme.

The sales centre development will occupy the eastern extent of the Future Mixed-use Precinct, with construction of driveway and a new access point on Scoresby Road for vehicles, a walking path for pedestrian access off the corner of Burwood Highway and Scoresby Road, the sales centre building and decking, and carparking for visitors. The proposed development plan is provided in Appendix 9.6; further details are available in the accompanying *Knox Sales Centre Indicative Plan, Native Tree and Native Non Canopy Tree Retention and Removal Plan* (MDG Landscape Architects 2021; also provided in Appendix 9.8).

1.1.1 Limitations

The targeted surveys were carried out during suitable conditions for the detection of the target species. While it is possible that some threatened vertebrate fauna species not recorded during the current surveys may occasionally visit or occur within the site, it is unlikely that any of these additional species regularly occur on, or rely upon, the site.

Please also note that surveys were not limited to the target species at the time of assessment; rather, all flora and fauna taxa observed on site were recorded and assessed for their habitat requirements, capacity to be found within the development area, and their conservation significance.

No targeted surveys for significant flora were conducted. Site assessments were undertaken utilising the 'random meander' process of undertaking assessment of suitable sites whilst selectively traversing preferred habitat for threatened species (see Section 2.1). Ecocentric is confident that this survey methodology meets the objectives of the project brief and criteria, and standards as set out in the *Vegetation Quality Assessment Manual* (DSE 2004; also commonly referred to as a Habitat Hectare Assessment).

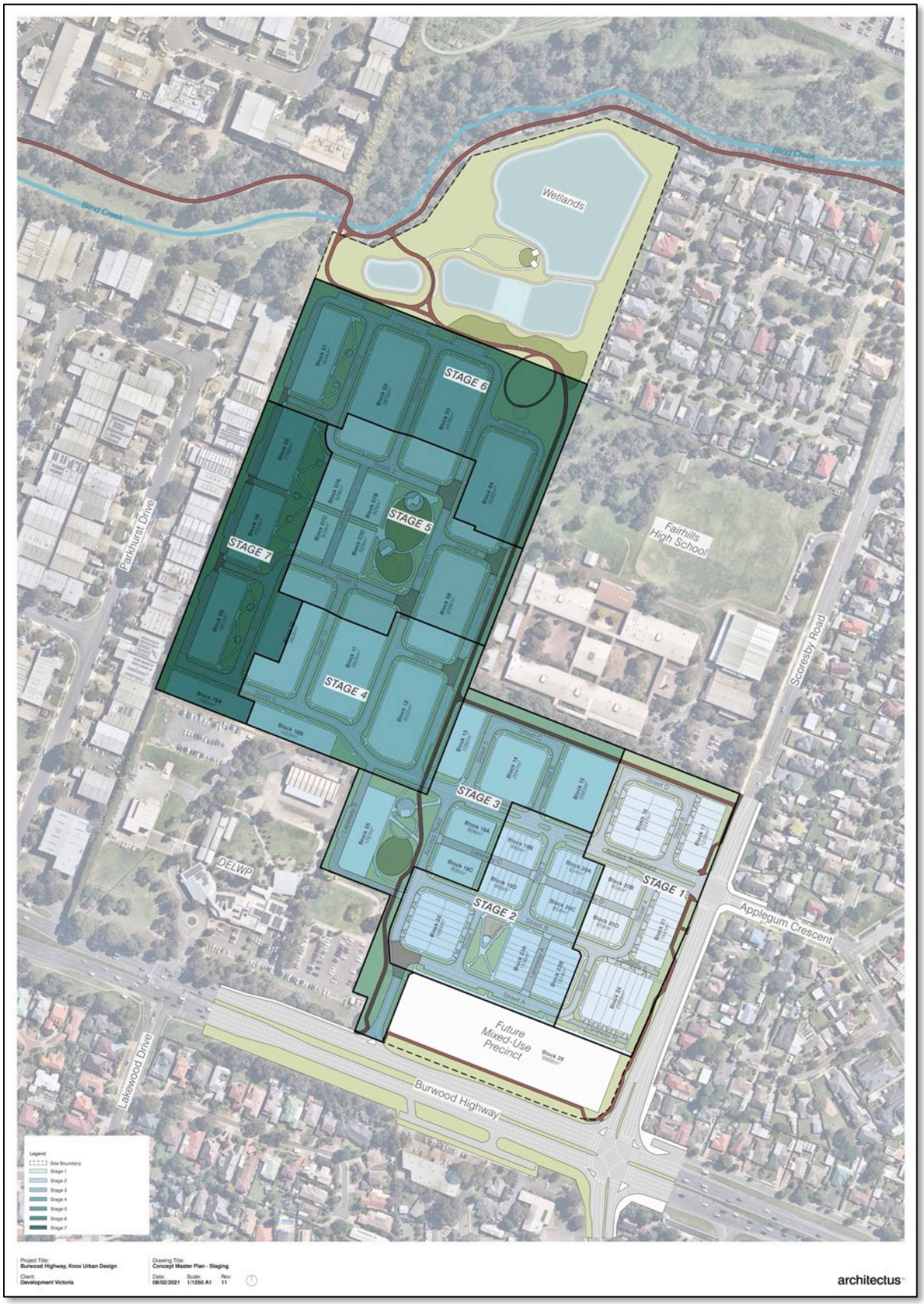
This report does not consider development implications that relate to non-environmental zoning and overlays; including objectives set out in the CDZ and its Schedule 2. Similarly, this report does not consider development

implications which may apply to the property under the Aboriginal Heritage Act 2006 (Vic).

This report relies on contributions from several consultancies and information provided by Development Victoria. Findings contained herein are therefore based on the reports provided at the date of publication; Ecocentric will not be held accountable for post-publication variations associated with report updates from external consultancies, agencies or parties.

This report assumes that the reader is familiar with the proposed development and its objectives, and the planning and financing context that brought about its instigation.

Figure 1. Property location (courtesy of Architectus Pty Ltd)



2. METHODOLOGY

A desktop review was undertaken as the first component of this project. This involved a review of on-line data resources available from relevant Victorian and Commonwealth departments, and a review of available management reports and documentation from other sites within the region. Maps of the site's indicative pre-1750 Ecological Vegetation Classes (EVCs), likely patches of remnant EVCs, and a map of the bioregion were generated on-line and were referred to on site during the assessment. An aerial photograph of the site was generated from NearMap and overlaid with the Title boundary data.

Existing datasets, modelling and mapping for the site that were reviewed and interrogated consisted of the following:

- Biodiversity Interactive Maps classifying (but not limited to) extant and pre-disturbance EVCs, Bioregion, Location Risk and Strategic Biodiversity Values (SBV) within the property and surrounds (DELWP 2020[1]; Victorian Open Data Directory 2020[2]);
- EVC benchmarks (DELWP 2020[3]);
- Victorian Biodiversity Atlas on-line database for records of significant flora and fauna in the region (DELWP 2020[4]);
- The Atlas of Living Australia on-line database for records of significant flora and fauna in the region (ALA 2020[5]);
- Commonwealth Department of Agriculture, Water and the Environment (DAWE) EPBC Act Protected Matters Search Tool database for significant flora, fauna and vegetation communities in the region (DAWE 2020[6]);
- DELWP species distribution and habitat importance models as produced for the *Guidelines 2017* policy (GIS mapping layers from Victorian Open Data Directory 2020[7]; DELWP 2017);
- Aerial imagery to determine habitat extents and linkages (NearMap 2020[8]);
- Relevant legislation, government policy and strategies (DELWP 2020[9]); and
- Publicly available geospatial datasets (including BirdData and iNaturalist).

[1] http://maps.biodiversity.vic.gov.au/viewer/?viewer=NatureKit
[2] https://www.data.vic.gov.au
[3] https://www.environment.vic.gov.au/biodiversity/bioregions-and-evc-benchmarks
[4] https://vba.dse.vic.gov.au/vba/
[5] https://spatial.ala.org.au
[6] http://www.environment.gov.au/epbc/pmst/index.html
[7] https://www.data.vic.gov.au
[8] http://maps.nearmap.com
[9] http://planningschemes.dpcd.vic.gov.au

Independent assessments were also commissioned by Development Victoria for the purpose of informing the Planning Permit application, these include:

- Development Master Plan by Architectus Pty Ltd (Architectus 2021; hereafter referred to as the *Development Master Plan*).
- Arborist report conducted by Galbraith and Associates Pty Ltd (Galbraith 2020; hereafter referred to as the *Arborist Assessment* report).
- *Knox Sales Centre Indicative Plan, Native Tree and Native Non Canopy Tree Retention and Removal Plan* by MDG Landscape Architects (MDG 2021; hereafter referred to as the *Sales Centre Tree Removal Plan*; also provided in Appendix 9.8 below).
- Landscape Master Plan by MDG Landscape Architects (MDG 2021; hereafter referred to as the *Landscape Plan*).

Ecocentric has also conducted ecological assessments across the broader property in support of Permit applications for the Stage 1 – 7 Development Area and the Wetland Development Area. Findings and recommendations are reported in the following documents (in preparation at time of publication):

- *Ecological Assessment: Stage 1 - 7 Development Area 609-619 & 621 Burwood Highway, Knoxfield* (Ecocentric 2021 in preparation).
- *Ecological Assessment: Wetland Development Area 609-619 & 621 Burwood Highway, Knoxfield* (Ecocentric 2021 in preparation).

These reports and the data behind them have been used by Ecocentric to inform this assessment.

2.1 FIELD SURVEYS

Ecological values on the property were assessed during several studies in 2015, 2017 and 2020 by suitably qualified and experienced ecologists. Ecocentric staff hold accreditation in the Vegetation Quality Assessment Competency Check; the company is also a DELWP Accredited Organisation for the assessment and establishment of Offset Sites, and a registered over-the-counter Native Vegetation Offset Broker.

The following techniques were utilised during the field surveys:

- All areas of *native vegetation* (see Section 2.1.1) and habitat (see Section 2.1.3) were assessed across the property;
- Mapped and extant Ecological Vegetation Classes (EVCs) on site were verified and assessed in the field to a hand-held tablet running Quantum GIS;
- Remnant habitat areas were assessed for habitat quality and conservation significance against relevant EVC benchmarks and in accordance with DELWP approved methodologies (see Section 2.1.1 for details). Where appropriate, habitat areas were also assessed against *impact threshold* criteria as documented under the EPBC Act for threatened vegetation communities (available on the Species Profile and Threats Database);

- Random meander searches for threatened flora and fauna species were completed throughout the property (see Section 2.1.3); and
- Any other incidental discussions, observations or evidence of flora or fauna were recorded.

Habitat values and quality were assessed based on significance criteria as detailed below in Table 1.

Table 1. Habitat significance

Habitat significance category	DESCRIPTION
Very high significance	Site known to support long-term breeding population(s) of threatened flora or fauna; is contiguous with large areas (greater than 50ha) of remnant vegetation and habitat; and there is a very high cover (greater than 75%) of remnant, indigenous vegetation with EVC appropriate canopy structures intact.
High significance	Site provides optimal habitat conditions for rare or threatened flora or fauna; there is a high degree of connectivity to large areas (greater than 50ha) of remnant vegetation and habitat; and there is a good cover (greater than 50%) of remnant, indigenous vegetation with EVC appropriate canopy structures intact.
Medium significance	Site provides sub-optimal habitat conditions for rare or threatened flora or fauna; there is connectivity to areas (greater than 0.4ha) of remnant vegetation and habitat; and there is some cover (greater than 25%) of remnant, indigenous vegetation with EVC appropriate canopy structures intact.
Low significance	Site provides limited habitat conditions for flora or fauna, and there is some cover of remnant, indigenous vegetation on site.

The precautionary approach was adopted for all site surveys where discretionary decisions were made. In particular, the absence of evidence of threatened flora, fauna, vegetation communities or habitat values during surveys was not interpreted as evidence of their absence on site.

2.1.1 Native vegetation assessment

A native vegetation assessment was undertaken to determine the extent and quality of native vegetation present at the site, and to inform potential Offset requirements if native vegetation clearance is approved.

Ecological Vegetation Classes were determined based on EVC modelling and benchmarks (DELWP 2017), and as confirmed in the field during the site surveys. Vegetation Quality Assessments (VQA; also commonly referred to as a Habitat Hectare Assessment) were undertaken for all areas of native vegetation (both remnant and as scattered trees) in accordance with the *Vegetation Quality Assessment Manual – Guidelines for applying the habitat hectare scoring method* (DSE 2004).

Native vegetation is defined under the *Native Vegetation Permitted Clearing Regulations* as follows:

A **patch of native vegetation** is:

- an area of vegetation where at least 25 per cent of the total perennial understorey plant cover is native, or

- any area with three or more native canopy trees where the drip line of each tree touches the drip line of at least one other tree, forming a continuous canopy, or
- any mapped wetland included in the 'Current Wetlands map', available in DELWP systems and tools.

A **scattered tree** is a native canopy tree that does not form part of a remnant patch. Scattered trees are classified into two different sizes, small and large:

- a small scattered tree is less than the large tree benchmark for the species in the relevant EVC;
- a large tree is equal to or greater than the large tree benchmark for the species in the relevant EVC;
- a standing dead tree that does not form part of a patch is treated as a large scattered tree if it has a trunk diameter of 40 centimetres or more at a height of 1.3 metres above the ground (DELWP 2017).

The current *Guidelines 2017* policy recognises that large trees are often the oldest part of an ecological system and are difficult to replace in the short term. To address this and to ensure the protection of large trees in the landscape, when large trees are approved to be removed, the secured Offset must include large trees. A large tree to be secured as an Offset may be either scattered or within a patch.

Native vegetation is further described in the Planning Scheme as flora native to Victoria which, in some cases, includes taxa that are not indigenous to the site. Table 2 below identifies vegetation types assessed in this study.

Table 2. Vegetation categories.

VEGETATION CATEGORY	DESCRIPTION	PLANNING IMPLICATIONS
Site indigenous	Indigenous to a local area. Defined as 'taxa that have originated in a given area without human involvement or that have arrived there without intentional or unintentional intervention of humans from an area in which they are native'.	There are certain exemptions under all Victorian Planning Schemes. 'Planted vegetation' provides an exemption to Clause 52.17 for native vegetation that has been planted on site whereby: *Native vegetation that is to be removed, destroyed or lopped that was either planted or grown as a result of direct seeding.* *This exemption does not apply to native vegetation planted or managed with public funding for the purpose of land protection or enhancing biodiversity unless the removal, destruction or lopping of the native vegetation is in accordance with written permission of the agency (or its successor) that provided the funding.* Much of the native vegetation at this site has been planted for aesthetic purposes at the property boundaries, as evidenced by the ornamental garden-beds and linear nature of the vegetation. It is assumed in this instance however that public funds have been used, and this exemption is therefore not applied.
Native to Victoria	Non-indigenous to the local area but native to Victoria (such as Tasmanian Blue Gum, Spotted Gum and Giant Honey-myrtle). Defined in Victorian Planning Provisions – Definitions – Clause 72 as *'Plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses'.*	If vegetation is not exempt as above, it may require a permit for removal. The Schedule to the Knox Planning Scheme Section 52.17 further lists species that are considered by the municipality to be environmental weeds (and native to Victoria) and which are therefore also exempted under the Clause.
Native to Australia	Non-indigenous Australian native plants or vegetation which are not indigenous to Victoria (such as Sugar Gums).	Usually do not require a permit for removal but are identified to demonstrate that these plants have not been overlooked.
Exotic Vegetation	Planted exotic vegetation, which is flora species that are not native to Australia.	Usually does not require a permit for removal, unless the vegetation is covered by an 'Environment Significance' or 'Vegetation Protection' Overlay that specifically addresses exotic vegetation.

2.1.2 Native canopy trees

The project arboricultural consultant mapped the location, species, DBH and TPZ of all canopy trees and non-canopy trees (tree and shrub species that form a secondary canopy layer) to the property feature survey; further details are provided in the *Arborist Assessment* report. The TPZ for each tree was then processed by the project landscape architect and imported to the Ecocentric

GIS for analysis on site; further details are provided in the *Landscape Plan* and the *Sales Centre Tree Removal Plan* for the project.

The tree data and GIS mapping layer were used by Ecocentric to identify all trees on site that are identified as being native to Victoria. These trees were then classified during the site assessments as being scattered or as part of a patch based on the number of trees and canopy spread.

The *Assessor's Handbook: Applications to Remove, Destroy or Lop Native Vegetation* (DELWP 2017; hereafter referred to as the *Handbook 2017*) defines a canopy tree as a mature tree (able to flower) that is greater than three metres in height, and of a species that is typically found in the upper layer of the relevant vegetation type (EVC). If impacted, significant canopy trees are to be Offset in accordance with Clause 52.17 of the Planning Scheme (see Section 6.3 for details).

For this project, assessment of canopy trees therefore included whether trees classify as 'large trees' (regardless of whether they occurred in 'patches' or as 'scattered trees') based on having a DBH of 70cm or greater, as appropriate to the Valley Heathy Forest EVC 127 or Swampy Woodland EVC 937 benchmarks (see Section 3.1.1 below), or as 'small trees' where these are greater than 3m in height but with a DBH of less than 70cm. The Knox Planning Scheme Section 52.17 schedule further lists native trees that are considered to be an environmental weed within the municipality, and which are therefore exempt of Offset requirements in accordance with the schedule. Exempted trees identified on site in this instance include the following species: Spotted Gum (*Corymbia maculata*); Blue-gum (*Eucalyptus globulus*); and Bracelet Honey-myrtle (*Melaleuca armillaris*).

The purpose of assessing and mapping the location of significant canopy trees was two-fold:

- To provide a large tree count per hectare for each defined Habitat Zone; and,
- To provide a spatial representation of significant canopy trees within close proximity of the proposed development in order to inform minor realignments where it is necessary to protect Tree Protection Zones[10] (TPZs) and thereby retain and conserve these ecological assets.

Assessments of tree health and structure were undertaken by the project arborist (Galbraith 2020); assessments of public liability for trees identified as being retained within the Future Mixed-use Precinct and sales centre development area were not conducted as part of this study.

2.1.3 General flora and fauna survey

An incidental flora and fauna survey was undertaken throughout the proposed development area and property. All species of vascular flora and vertebrate and invertebrate fauna detected on the site were recorded.

The study area was assessed for its faunal habitat values and potential to support threatened flora and fauna species, and/or threatened vegetation communities. The assessment involved site-based habitat assessments, and a

[10] TPZ is a calculated area (based on AS 4970-2009 (Protection of trees on development sites)) of soil volume required to encompass sufficient absorbing tree root systems to ensure the long-term survival of a tree. Trees may be considered as lost (and may require an Offset) if impacts of greater than 10% intrusion into the TPZ occur.

review of aerial photography to gain an appreciation of habitat connectivity in a broader landscape context.

The general habitat assessment focused on the extent of native vegetation cover, composition and structure of the vegetation, as well as other features important in determining habitat quality. Habitat features observed and assessed included (but were not limited to):

- Presence of nectar-producing and hollow-bearing trees;
- Presence of ground logs, stone outcrops or exposed surface habitat;
- Level of disturbance (e.g. weed invasion) and ground-layer characteristics including leaf litter and logs;
- Size, shape and connectivity of vegetation patches;
- Presence of specific habitat features (e.g. aquatic vegetation); and
- Structural heterogeneity of the vegetation.

Habitat within the proposed development area was also assessed on site using active searching techniques. Active searching included looking for sign of fauna activity, such as (but not limited to) scats, tracks, tree marks, burrowing, surface scratching (in particular conical pits formed by foraging bandicoots and ground fauna), hair scraps (particularly on fences), game trails, nests (and dreys), burrow chimneys, feed middens and scat sites. Surface habitats, such as rocks, logs, sheets of corrugated iron and building rubble, were lifted carefully and inspected for presence of fauna or sign of habitation. Avian surveys were conducted using binoculars while on site.

Please note that there are no wetlands or waterbodies within the proposed sales centre development areas, and that amphibian surveys are not required in this instance.

Any significant flora or fauna identified were mapped to the GIS spatial layers using a hand-held GPS (accurate to +/- 5m).

2.1.4 Likelihood of occurrence

All threatened flora and fauna species that were identified by the desktop assessment as potentially occurring within a five-kilometre radius of the property had their likelihood of occurrence on site assessed by an examination of species-suitable habitat on site (as identified through aerial imagery, previous reports and site surveys). A species was assumed to be present if suitable habitat was observed in the study area, and if that species was known to occur regionally. This is a conservative approach likely to include species that are difficult to detect.

The probability that each threatened species occurs within the study area was determined as being either Unlikely, Low, Moderate, High, Very High or Recorded, based on the criteria listed in Table 3 below.

Table 3. Likelihood of occurrence criteria

Likelihood of occurrence	Criteria - one or more of the following conditions applies for threatened flora and / or fauna species
Unlikely	The species has not been recorded previously within 5km of the study area. The study area is beyond the current known geographic range of the species. The species has specific habitat requirements that are not present in the study area. The species is considered to be extinct or regionally extinct.
Low	The species has historically (>20 years ago) been recorded within 5km of the study area. The species has specific habitat requirements that are present in the study area, and these habitat areas are considered to be of Low significance (see Table 1) for the species.
Moderate	The species has been recorded more recently (<20 years ago) within 5km of the study area. The species has specific habitat requirements that are present in the study area, and these habitat areas are considered to be of Low or Medium significance (see Table 1) for the species.
High	The species has been recorded more recently (<20 years ago) within 5km of the study area. The species has been recorded more recently (<20 years ago) within the study site. The species has specific habitat requirements that are present in the study area, and these habitat areas are considered to be of Medium or High significance (see Table 1) for the species. A known population of the species with records (typically >20) is located in similar habitat within 5km of the study area.
Very High	The species has been recorded more recently (<20 years ago) within 5km of the study area. The species has been recorded very recently (<5 years ago) within the study site. The species has specific habitat requirements that are present in the study area, and these habitat areas are considered to be of High or Very High significance (see Table 1) for the species. A known population of the species with records (typically >20) is located in similar habitat within 5km of the study area.
Recorded	The species was recorded in the study area during the current survey.

3. RESULTS

The current biodiversity values of the sales centre development area are highly modified compared to those pre-dating European settlement, attributable to broad-scale clearing of vegetation, the planting of exotic and non-indigenous native vegetation, and alterations to drainage patterns.

The majority of the development area consists of cleared land, constructed features and planted exotic vegetation (see Appendix 9.6). The broader property was formerly used for agricultural research purposes, with planted fruit trees, polytunnels and buildings and sheds – now mostly removed from site. The property in general, and sales centre development area in particular, is now maintained as open space comprising common pasture grasses that have been regularly slashed for the prevention of grass-fire and weed control.

Middle and upper canopy vegetation within the Future Mixed-use Precinct development area is limited to planted trees and shrubs which are not indigenous to the site. Trees and shrubs around the property boundary comprise a mix of native (to Victoria) and exotic tree species that have been planted for aesthetic purposes, which form a linear, contiguous canopy cover.

There are no wetlands, waterways or drainage-lines within the proposed sales centre development area; the nearest aquatic habitat is within the constructed dam in the north of this property which is not assessed in this report (see Ecocentric 2021 in preparation).

3.1 NATIVE VEGETATION AND HABITAT

The following sections provide an outline of all native vegetation and habitat values assessed within the sales centre development area. These assessments have been roughly classified into two groups based on the presence of native flora and the quality of habitat available therein; namely:

- Scattered native trees and patches (three or more native trees with overlapping canopies) along property boundaries; and
- Patches of native trees within the developable area.

The definition of a native tree, and whether or not it is planted or exempt for Offset purposes, is provided in Section 2.1.1 above (see also Appendix 9.1 for details).

All intact native vegetation was assessed in accordance with the *Vegetation Quality Assessment Manual – Guidelines for applying the habitat hectare scoring method* (DSE 2004; hereafter a VQA assessment), with definitions as provided in Section 2.1.1 above and in accordance with the DELWP *Assessor's Handbook: Applications to Remove, Destroy or Lop Native Vegetation* (DELWP 2017; hereafter referred to as the *Handbook 2017*).

3.1.1 Pre-disturbance EVCs

Determining the appropriate EVC benchmark was at times difficult due to the highly modified state of all remnant vegetation within the study area (e.g. lack of understorey in many areas). The final decision was made based on remnant canopy and understorey species, where available, landscape positioning and analysis of the 2005 EVC modelling spatial data (see Figure 2 below).

Analysis of the pre-disturbance EVC modelling, the 2005 EVC model, remnant vegetation within the proximity of the site, soils and topography identifies the sales centre development area as likely to have once supported a Valley Heathy Forest EVC (EVC 127). Sites of intact native vegetation within the study area are therefore assessed against the Valley Heathy Forest EVC 127 benchmark for the Gippsland Plain bioregion.

Figure 2. DELWP 2005 EVC modelling (DELWP 2020)

3.1.2 Intact native vegetation patches

There is little to no understorey habitat along the property boundaries, where garden beds have been mulched to prevent the establishment of environmental weeds and where regular slashing and mowing has been conducted to maintain an open 'park like' appearance. There are native canopy trees that have been planted along the property boundary for aesthetic purposes which qualify as native vegetation patches where three or more trees have overlapping canopies (see also Section 2.1.1). One of these, mapped and assessed as Habitat Zone 15A, will be impacted by the construction of a new access point and driveway off Scoresby Road. There are six native canopy trees within this patch identified in the *Arborist report* as Tree numbers 160, 161, 162, 164, 168 and 171; of these only two trees will be physically removed, and the remainder are assumed lost due to unavoidable TPZ impacts (see also Table 5 below).

Habitat Zone 15A may have tree hollows present that are suitable for arboreal mammals and hollow dependent birds, and there are bark fissure and canopy roosting and feeding opportunities for bats (fruit and insectivorous taxa), passerine and honeyeater birds, and arboreal mammals. However, it is considered unlikely that this patch, nor surrounding areas of native vegetation, would support threatened or significant flora or fauna. These sites are assigned a rating of ***low habitat significance*** (see Table 1 for details).

There are also several shrubs at the property boundary on the intersection of Burwood Highway and Scoresby Road; these shrubs are identified in the Arborist report as Tree numbers 152 (*Grevillea robusta* (Silky Oak)), 153 (*Callistemon salignus* (Willow bottlebrush)) and 154 (*Acacia cognate* (Bower Wattle)). *Grevillea robusta* and *Callistemon salignus* are non-native species that have been planted for aesthetic purposes along the fence line. *Acacia cognate* is considered to be naturalised in parts of East Gippsland (i.e. introduced to the region and now spreading) but is not considered to be native to this site. The removal of these shrubs is not considered to be ecologically significant, and will not trigger Offset requirements under the Guidelines 2017 policy. These loss of these shrubs will be mitigated through revegetation along the property boundary and around the sales centre as part of the post-construction landscape works.

The loss of Habitat Zone 15A (294m^2) and native vegetation therein will trigger a Planning Permit requirement under Section 52.17 of the Knox Planning Scheme for the removal of native vegetation; these losses will be Offset in accordance with the *Guidelines 2017* policy (see also section 6.3 for details).

There are no patches of native vegetation within the sales centre development area that are away from the property boundary. Native vegetation losses will therefore be limited to the removal of the planted canopy trees on the Scoresby Road boundary (see also Appendix 9.6 mapping for details).

We note also that the vast majority of trees along the property boundaries will be retained within linear reserves as part of the Stage 1 – 7 development program (see *Ecological Assessment: Stage 1 - 7 Development Area 609-619 & 621 Burwood Highway, Knoxfield* for details (Ecocentric in preparation)).

Table 4 below presents the results of the VQA habitat hectare assessments for Habitat Zone 15A described above (see Appendix 9.6 maps for patch locations).

Table 4. Native vegetation patch VQA results

Habitat Zone			15A
Benchmark criteria		Max. Score	Valley Heathy Forest
			EVC 127
Site condition	Large Old Trees	**10**	0
	Canopy cover	**5**	5
	Understorey	**25**	0
	Lack of weeds	**15**	4
	Recruitment	**10**	0
	Organic litter	**5**	3
	Logs	**5**	0
	Condition total:	**1x**	12
Multiplier		100%	1
	Patch Size		1
	Neighbourhood		1
	Distance to Core		0
	Landscape total:		2
Habitat quality score		**100**	**14**
Habitat score as above = #/100			0.14

3.1.3 Intact native canopy trees

The *Handbook 2017* defines a native canopy tree as a mature tree (able to flower) that is greater than three metres in height, and of a species that is typically found in the upper layer of the relevant vegetation type (EVC). Significant canopy trees are trees which meet this description and which are greater than or equal to the large tree DBH as defined in the EVC benchmarks. If impacted, significant canopy trees are to be Offset or counterbalanced in accordance with Clause 52.17 of the Planning Scheme (see Section 6.3 for details).

For this project, canopy trees were therefore assessed against the Valley Heathy Forest EVC 127 or Swampy Woodland EVC 937 benchmarks, whereby 'large trees' are defined as those with a DBH of 70cm or greater.

The purpose of assessing and mapping the location of significant canopy trees was two-fold:

- To provide a large tree count per hectare for each defined patch; and
- To provide a spatial representation of significant canopy trees within close proximity of the sales centre development area and construction footprint, in order to help inform minor realignments that could better protect TPZs and thereby retain and conserve these ecological assets.

The location of all native trees within the sales centre development area was mapped to the site feature survey by the project arborist, and TPZ extents were added by the project landscape architect. Each tree was further assessed on site by Ecocentric and identified as being either: native to Victoria; exempt of Offset requirements as specified under Section 52.17 schedule of the Knox Planning Scheme; or exotic (non-native to Victoria and/or environmental weeds).

All options to retain native trees were further explored with the project engineers and Development Victoria in an effort to avoid and minimise losses. Efforts to avoid impacts included re-alignment of the development footprint to minimise impacts within TPZs; details of avoidance measures are provided below in Section 6.3.3.

A tree is considered lost in all cases where it is scheduled to be removed, and in all cases where impacts within its TPZ area exceed 10%. Table 5 below identifies all such native canopy trees, large and small, within the sales centre development area (see also maps in Appendix 9.6; see also the *Landscape Plan* and *Arborist Assessment* report for details). The native trees being removed or considered lost are presented as small and large canopy trees (SCT and LCT respectively) located with a patch of native vegetation (where the understorey cover of native vegetation exceeds 25% cover, or, where three or more canopy trees overlap (see also definitions in Section 2.1.1. above). These trees, as listed below, are to be Offset in accordance with the *Guidelines 2017* policy prior to the commencement of works on site (see also Section 6.3 for details).

Table 5. Native canopy trees to be removed or considered lost within the sales centre development area.

Tree	Species	DBH	Offset category
160	Eucalyptus melliodora (Yellow Box)	43	HZ15A SCT
161	Eucalyptus tricarpa (Red Ironbark)	48	HZ15A SCT
162	Eucalyptus melliodora (Yellow Box)	20	HZ15A SCT
164	Eucalyptus leucoxylon (Yellow Gum)	26	HZ15A SCT
168	Eucalyptus tricarpa (Red Ironbark)	46	HZ15A SCT
171	Eucalyptus sideroxylon (Red Ironbark)	44	HZ15A SCT

Tree ID is as per Galbraith (2020) (*Arborist Assessment* report)
Size class based on 70cm DBH for a large tree in the Valley Heathy Forest EVC 127
SCT – Small canopy tree in patch
HZ15A – patch of native vegetation mapped as Habitat Zone 15A

It is important to note that no large canopy trees will be lost due to the sales centre development program.

All trees identified in Table 5 above will be Offset in accordance with DELWP's *Guidelines 2017* Offset policy and the Knox Planning Scheme (Section 6.3.1). This constitutes a conservative approach to environmental protection, given that all of the trees listed in Table 5 are considered likely to have been planted; attributable to their location along property boundaries or within experimental plantations and their young age class (as confirmed by the low DBH range and the *Arborist Assessment* report).

Once Permitted for removal the trees identified in Table 5 above are to be clearly marked as such on site *prior* to commencement of works. Every effort is nevertheless to be made on site to retain these trees if possible; if retained then these will be considered ecological gains that are the result of a careful works program on site.

We also note that the majority of the site's trees that are considered to be native to Victoria are being retained on site through careful design of the Stage 1 – 7 development area.

3.2 SIGNIFICANT FLORA

A local database analysis and habitat assessment was undertaken for flora that could potentially occur on site. A 5km search from the development site using the Victorian Biodiversity Atlas (DELWP 2019) and the Federal *Protected Matters Search Tool* (DAWE 2020) was undertaken to provide an indication of species that may possibly utilise habitats within the proposed development area. Atlas of Living Australia and iNaturalist databases were also searched for local (within 5km) records of significant species.

Appendix 9.3 lists 67 species recorded, and/or predicted to occur, within five kilometres of the project area that are classified as threatened under the EPBC Act, FFG Act, or that are listed under the Advisory List of Rare or Threatened Flora in Victoria (DEPI 2014).

Of all rare or threatened flora species recorded within five kilometres, none were recorded on site within the sales centre development area (NB: threatened species recorded within the wetlands development area are the subject of a separate report (Ecocentric in preparation)). Furthermore, no threatened or significant flora are expected to be found on site, attributable to the disturbed nature of available habitat due to extensive land clearance for historic agricultural uses, the use of this property for agricultural research, and long-term slashing and mowing within the development area.

3.3 SIGNIFICANT FAUNA

A local database analysis and habitat assessment was undertaken for fauna that could potentially occur on site. A 5km search from the development site using the Victorian Biodiversity Atlas (DELWP 2019) and the Federal *Protected Matters Search Tool* (DAWE 2020) was undertaken to provide an indication of species that may possibly utilise habitats within the proposed development area. Atlas of Living Australia, BirdLife Australia and iNaturalist databases were also searched for local (within 5km) records of significant species.

Appendix 9.4 lists 100 species recorded, and/or predicted to occur, within five kilometres of the project area that are classified as threatened under the EPBC Act, FFG Act, or that are listed under either the Advisory List of Threatened Invertebrate Fauna in Victoria (DSE 2009) or the Advisory List of Threatened Vertebrate Fauna in Victoria (DSE 2013).

Of all threatened fauna species recorded within five kilometres, none were recorded on site within the sales centre development area (NB: threatened species recorded within the wetlands development area are the subject of a separate report (Ecocentric in preparation)). An assessment of the likelihood of occurrence of the threatened fauna species, as based on the habitat values identified on site, found no taxa with anything above a low likelihood of presence within the sales centre development area (see Table 2 for likelihood of

occurrence categories). This is attributable to the disturbed nature of available habitat due to extensive land clearance for historic agricultural uses, the use of this property for agricultural research, and long-term slashing and mowing within the proposed development area.

Two species identified under the EPBC Act 1999 (Cwlth) are identified as having a low likelihood of occurrence within the Stage 1 – 7 development area, Swift Parrot (*Lathamus discolor*) and Grey-headed Flying-fox (*Pteropus poliocephalus*); the potential for impact on these species is discussed in the *Ecological Assessment: Stage 1 - 7 Development Area 609-619 & 621 Burwood Highway, Knoxfield* report (Ecocentric in preparation). We note however that neither of these species is considered likely to occur within the sales centre development area; these species are therefore not considered further in this report.

4. POTENTIAL IMPACTS

The sales centre development will result in the loss of a small patch of native vegetation of *low habitat significance* which comprises six overlapping native canopy trees (identified in Table 5 above). This includes the loss of 0.0294 hectares of native vegetation within Habitat Zone 15A.

No significant flora or fauna are expected to be impacted by the sales centre development works. None-the-less, the *avoid* and *minimise* principle has been applied through careful design of the *Sales Centre Plan* and the wider *Development Master Plan,* and it is noted that approximately 1.12 hectares of native and non-native vegetation is retained around the property boundaries; we expect also that additional canopy trees can be saved during the construction program through micro-design of the development area and engagement of a qualified arborist to oversee tree root pruning.

The precautionary approach has also been applied in order to ensure that no significant ecological values are lost on site due to this development. The application of the precautionary principle was applied through:

- Adoption of the avoid and minimise principles, and retention of habitat and native vegetation wherever feasible;
- Identification of impact mitigation measures, as detailed in Section 5 below, to protect against impacts on common flora or fauna species that may be encountered on site;
- Securing of Native Vegetation Offsets prior to commencement of works in accordance with Victoria's *Guidelines 2017* policy and in order to ensure that there is *no net loss* of biodiversity values associated with this project (Section 6.3).

Unavoidable impacts are discussed in further detail below; measures aimed at the mitigation of these impacts are discussed in Section 5.

4.1 IMPACTS ON NATIVE VEGETATION AND HABITAT

The sales centre development program will result in the loss of native vegetation, as defined in the Knox Planning Scheme. This includes the physical removal and/or assumed loss due to TPZ impacts of six small native canopy trees (DHB less than 70cm) that have been planted along the property boundary with Scoresby Road.

Table 6 below provides the GIS shapefile metadata used in DELWP's native vegetation impact and offset calculation software, EnSym, to calculate the required Native Vegetation Offset target to ensure that there is no net loss of biodiversity values associated with this project. Details of Offset requirements are provided below in Section 6.3.

Table 6. GIS metadata: native vegetation full loss

HH_SI	HH_ZI	HH_VAC	HH_EVC	BCS	LT_CNT	HH_A	map ID
15	A	P	GipP0127	E	0	0.0294	15A

4.2 SIGNIFICANT FLORA AND FAUNA IMPACTS

Appendix 9.3 and 9.4 lists significant flora and fauna respectively that have been recorded within a 5km radius of the property. We note however that no significant flora was identified within the sales centre development area, and no significant fauna were identified as having anything above a 'low' likelihood of being encountered within the sales centre development area.

4.3 URBANISATION AND CONSTRUCTION PHASE IMPACTS

The increased level of urbanisation associated with development on site, as well as impacts associated with construction works, are likely to have an impact on ecological values on site. Potential impacts include increased environmental weed invasion, erosion and sedimentation loss impacts, light pollution impacts associated with street and building lighting, and changes to stormwater surface flows. These potential impacts are discussed below.

4.3.1 Weed invasion and disease

The type of disturbance associated with the proposed development of this site can provide a window of opportunity for weeds and soil pathogens such as Phytophthora (**Phytophthora cinnamomi*) to establish. Clearing vegetation, earthworks, stockpiling of materials and driving on site leaves bare ground that is particularly susceptible to colonisation by weeds or introduction of disease. Weed seeds and pathogens contained within material being used for construction or within mud from vehicles may also be deposited into disturbed areas. Without effective weed and disease hygiene control protocols, contaminants from construction material and un-clean vehicles have the potential to introduce a suite of avoidable impacts to ecological values on site.

Herbaceous / grassy weeds are common across the site, particularly where regular slashing has enabled these invasive species to colonise and dominate the groundstorey. The spread of grassy weeds off-site is to be prevented in accordance with the *Catchment and Land Protection Act 1994* (CaLP Act). It will also be necessary to ensure that weeds and soil pathogens do not spread to the wetlands development area (north of the Stage 1 – 7 development site) or neighbouring bushland areas leading to degradation or loss of threatened ecological communities and/or reduction in the value of the habitat for threatened and migratory species.

4.3.2 Erosion, sedimentation and stormwater surface flows

Bare ground, which results from clearing, stockpiling, earthworks, or driving vehicles and plant off-road, is susceptible to erosion. Given the relatively flat topography at the development site however it is expected that erosion impacts can be retained to the impact footprint and managed through standard *best practice* management protocols outlined in Section 5.2.5 below.

Similarly it is expected that stormwater can be retained within the development area and managed through standard *best practice* management protocols outlined in Section 5.2.7 below.

4.3.3 Ecological light pollution

Artificial light that alters the natural patterns of light and dark in ecosystems is referred to as 'ecological light pollution' (Longcore & Rich 2004). Types of ecological light pollution include chronic or periodically increased illumination, unexpected changes in illumination, and direct glare (Longcore & Rich 2004).

Light pollution from the sales centre development area has the potential to impact fauna during the construction phase through use of high-powered artificial lighting for early morning or night work. Following the completion of construction, fauna may be impacted by light pollution on an ongoing basis from streetlights, vehicle headlights, and residential lighting. With regard to construction lighting, night work is not currently expected for the project; any required night work would likely be on an intermittent, short-term basis. Work is also not expected to occur early enough that lights are required. As such, post-construction impacts are expected to be greater than those of temporary construction lighting.

Street lighting also has potential to impact fauna on site due to light-spill into habitat areas (in particular into the wetlands development area not considered in this report). The use of directional street lighting is considered below in Section 5.2.6.

5. IMPACT MITIGATION

The sales centre development will have an impact on the current limited ecological values on site. Impacts are generally categorized in this instance as the loss of a small patch of native vegetation of *low habitat significance* which comprises six overlapping native canopy trees (identified in Table 5 above). A process for the mitigation of these impacts is outlined below which includes (at minimum):

- Retention of native canopy trees and Valley Heathy Forest understorey habitat along the property boundaries;
- Landscaping of open-space reserves and at the property boundaries (see also the *Landscape Plan* for details);
- Minimisation of vegetation losses to that extent necessary to construct the sales centre access point and driveway (see also Appendix 9.8 *Knox Sales Centre Indicative Plan, Native Tree and Native Non Canopy Tree Retention and Removal Plan* for details);
- Containment and control of weeds, soil pathogens, soil erosion, sediment, water pollutants and ecological light pollution is to be implemented by the contractor during the construction process.

Sections below outline requirements for mitigation of impacts on site.

5.1 PRELIMINARY MEASURES TO AVOID AND MINIMISE IMPACTS

A key tenet of the *Guidelines 2017* policy (DELWP 2017) is the requirement to *avoid and minimise* impacts to native vegetation; this principal is also common to legislative Acts such as the EPBC Act and the FFG Act. The principal is that preference should be given to avoidance > minimisation > mitigation > offset, and that this should be considered early in the design of the project.

Avoidance and minimisation of ecological impacts have been considered during the early design stages of this project, including:

- Careful siting and design of the Scoresby Road access point to avoid loss of native canopy trees on the property boundary;
- Careful siting of the sales and information centre, carpark and access roadway within the slashed open-space areas that are relatively free of native vegetation.
- Ensuring that, wherever practicable, native vegetation outside of the proposed development area is retained – in particular, areas of native vegetation at the property boundaries; and
- Ensuring that there will be no native vegetation losses outside of the proposed development area through the use of TPZ fencing to clearly define the extent of the Permitted sales centre development footprint.

In addition, all native vegetation losses will be Offset in accordance with the *Guidelines 2017* policy to ensure that there is 'no net loss' of biodiversity values associated with this development. Details of the Native Vegetation Offset requirements are provided in Section 6.3.

Details of general mitigation measures that are to be implemented are detailed below.

5.2 GENERAL IMPACT MITIGATION MEASURES

A Construction Environmental Management Plan (CEMP) is required for the mitigation of impacts associated with the construction of the sales centre, carparks and access roadway, and more generally for the Stage 1 – 7 development works. A Construction Environmental Management Plan typically outlines all practicable measures to minimise and mitigate impacts on biodiversity from the construction and operation phase to the management and maintenance phases. Clear prescriptive guidelines are to be developed that detail how impacts on native vegetation, habitat and common flora and fauna species are going to be minimised.

The Construction Environmental Management will include, where appropriate, procedures around:

- Detailed design of mitigation measures associated with retention of trees and/or areas of remnant vegetation;
- Staff and contractor inductions to identify no-go-zones, the location of sensitive biodiversity values within the wetlands development area, and staff/contractor roles and responsibilities with regards to the protection and/or the minimisation of impacts to all native biodiversity; and
- Canopy tree removal, with additional requirements for trees with hollows, and native vegetation clearing protocols.

The Construction Environmental Management Plan will include clear objectives and actions including:

- Minimising human interferences to flora and fauna;
- Minimising vegetation clearing/disturbance;
- Minimising impact to threatened species and communities;
- Erosion and sediment control;
- Avoidance of artificial light spill and light pollution;
- On site stormwater and sediment controls and protection of down-slope habitat areas; and
- Handling and storage of hazardous / toxic substances.

The Construction Environmental Management Plan will therefore cover (at minimum) mitigation measures for impacts associated with the loss of native vegetation and scattered trees, the potential for the spread of, or introduction to the site, of weeds and/or soil pathogens, erosion impacts and sediment loss, and impacts associated with light pollution.

5.2.1 Native tree and vegetation retention

The majority of the sales centre development area consists primarily of cleared land that provides limited habitat for native flora or fauna species. The exception to this are the six trees on the Scoresby Road boundary which will be

impacted by this proposed development. All eucalypt-dominated vegetation at the site (including non-indigenous eucalypts), and particularly vegetation that is part of a larger patch of contiguous tree canopy, has some value for a limited range of arboreal fauna, including bats, possums and birds. This vegetation has therefore been retained where possible as part of the wider development program and incorporated into Public Open Space areas and reserves (see also *Development Master Plan* and *Landscape Plan* for details).

If eucalypt-dominated vegetation, including patches, scattered trees and stands of non-indigenous eucalypts cannot be retained, then individual trees that are designated for removal must be assessed for their potential to support arboreal birds and mammals (including an assessment of hollows and fissures). Trees deemed habitat for arboreal species must be removed in a manner that allows for the relocation of fauna to nearby suitable habitat or to replacement nesting boxes that are installed prior to tree removal.

A fauna relocation and salvage plan is to be incorporated into a Construction Environmental Management Plan for the site, which guides the mitigation of impacts to arboreal mammals, bats and birds. The following steps are an example of the types of mitigation measures that are to be deployed by an arborist, under the supervision of an appropriately qualified zoologist during the tree removal works:

- Visually identifying any tree hollows, including fissures and loose bark, by climbing the tree prior to removal.
- Cutting upper branches to a minimum diameter of 150 mm, taking care to avoid cutting within approximately 1 m of any hollows or fissures where possible (regardless of hollow size).
- Lowering branches containing visible hollows to the ground with rope (instead of allowing branches to fall to the ground) to avoid injuring animals that may be residing inside the hollows.
- Leaving all cut branches (minimum 150 mm diameter) and felled trees lying on the ground for a minimum of 48 hours, to allow animals to find alternative habitat in nearby habitat or installed nest boxes.
- Ensuring that immature or injured fauna is captured by a qualified zoologist and then assessed for determination of whether the animal should be relocated to suitable nearby habitat, or transported to suitable veterinary treatment facilities.

Any eucalypt trees that are physically removed to facilitate the development program are to be retained on site for placement as habitat ground-logs within the wetlands development area at a future date. Retained logs are to be stockpiled at an appropriate location prior to their use for habitat purposes.

5.2.2 Minimising damage to trees

There are numerous native and non-native trees adjacent the sales centre development area which are to be retained on site. To prevent detrimental impacts to trees, the *Australian Standard for protection of trees on development sites* (AS4970-2009) (Standards Australia 2009) and the *Australian Standard for pruning of amenity trees* (AS4373-2007) (Standards Australia 2007) are to be followed during construction.

Trenching and drilling works within Tree Protection Zones (TPZs; as defined in the standards) are to be avoided; however, an encroachment of up to 10% of the TPZ without the need for an arborist assessment of the tree's future viability is permitted, as per *Defining an acceptable distance for tree retention during construction works* (DSE 2011). If the works are to be conducted inside more than 10% of a TPZ and/or within the Structural Root Zone (SRZ) of a tree, an arborist will be required to conduct a root investigation to determine if the tree will remain viable. Otherwise the tree will be considered 'removed' for the purposes of the *Guidelines 2017* policy, and will require a Native Vegetation Offset in accordance with the policy.

Appropriate TPZ fences are to be installed in consultation with an arborist around all trees that are to be retained on site. The TPZ fences must be no less than two meters in radius around the tree to be protected. All TPZ fencing is to be erected prior to the commencement of works, and maintained in good working order for the duration of the construction program on site.

5.2.3 Vegetation retention and protection

Construction areas are to be clearly demarcated to avoid any inadvertent or unapproved clearing or damage to areas identified as 'no-go' zones. Vegetation surrounding the construction areas that is to be retained must be clearly defined on site to all contracting staff.

To ensure that any vegetation in areas adjacent to the areas not approved for removal is not damaged or inadvertently removed during the proposed works, the following steps are to be taken into consideration:

- Install temporary fencing around vegetation that is to be retained (no-go zones);
- Clearly mark fencing around trees to be retained to ensure they are not damaged during construction of the access route to this site;
- Brief contractors regarding the protection of vegetation and the purpose of avoidance and minimisation;
- Attach temporary signage identifying areas as environmentally sensitive, stating that access and other disturbances are prohibited adjacent to construction zones;
- Select the appropriate type and size of machine so that disturbance and impact to vegetation is minimised and the chances of successful rehabilitation (if applicable) are enhanced;
- Adhere to any other construction mitigation requirements outlined by the consultant arborist.

No-go areas must be well defined visually in the field and be identified to all works crew as part of an induction undertaken on site. These recommendations are to be included in a Construction Environmental Management Plan, developed prior to construction taking place. No-go area fencing is to be erected prior to the commencement of works, and maintained in good working order for the duration of the construction program on site.

5.2.4 Weed and soil pathogen control

Bare ground exposed by development works is particularly susceptible to invasion by weeds and soil pathogens. One of the most common forms of introduction is from mud on vehicle tyres being deposited into disturbed areas. Without effective vehicle hygiene, vehicles have the potential to introduce new weeds and pathogens that were not present prior to construction.

To ensure that weeds and diseases are not brought onto work sites, or existing weeds and diseases (if they occur) are not spread to other sites, the following steps are to be taken:

- Prepare a contractor environmental hygiene manual (or follow an existing one) outlining the necessary actions required to prevent weeds and diseases entering and/or leaving the site including:
    - All machinery and vehicles are to be free of weed propagules and/or material carrying potential diseases prior to commencement of work;
    - If possible, begin work in areas close to native vegetation and move to areas dominated by introduced species, and ensure machinery is thoroughly cleaned between sites.

These management requirements are to be included in a Construction Environmental Management Plan, developed prior to construction taking place.

5.2.5 Erosion control

Areas of exposed and de-stabilised soil will inevitably be created during the construction process as a result of excavation and trenching. Erosion mitigation measures are to be applied to prevent the movement of soil and sediment to areas outside of the sales centre development area. While vegetation provides the most effective form of erosion control, it is likely that additional interim measures will be required. A wide variety of soil erosion techniques can be applied using a range of materials such as erosion control geotextiles and rock aggregates.

Throughout the sales centre development area, a number of principles should be applied in order to avoid erosion. These include:

- Limiting machinery and earthworks to construction areas only;
- Limiting the exposure of disturbed soil for the shortest possible time (e.g., do not clear an area prior to a weekend if rain is forecast);
- Diverting water away from exposed soil or loose material;
- Applying temporary silt trapping techniques if required to retain sediments within the development area; and
- Retaining the natural drainage lines of the site as much as possible.

These management requirements are to be included in a Construction Environmental Management Plan, developed prior to construction taking place.

5.2.6 Light pollution

Light pollution and light spill impacts are identified as a potential threat to the site's fauna. Consideration of lighting design, the location, direction and placement of construction lighting, and/or placement and direction of permanent streetlighting will therefore be required for the project to ensure that there is no inadvertent light pollution or light spill impacts. These considerations include (at minimum) confining light spread by using directional lighting, lowered lighting and/or screening to direct light away from habitat areas thereby reducing impacts to wildlife (Gleeson & Gleeson 2012). Controls that may be appropriate include the use of hoods or shields on construction lighting, early installation of noise-walls aimed at ongoing mitigation of both noise and light-spill impacts, and the careful siting and orientation of street lights directed away from ecological assets.

These management requirements are to be included in a Construction Environmental Management Plan, and the final development design, developed prior to construction taking place.

5.2.7 Stormwater, and protection of wetland habitats

There is potential during the construction phase to impact areas adjacent the sales centre development area. Impact avoidance and mitigation measures are therefore required, including:

- There is to be no loss of sediment or soil from the construction area to adjacent sites or neighbouring roadway reserves.
- Stormwater that can be contained within the sales centre development area is to be treated in a temporary sediment control structure; water from the sediment control structure is to be re-used wherever practicable within the construction footprint for suppression of dust and soil treatment.
- Stormwater that cannot be re-used or contained on site or placed in the open water wetland area is to be disposed of off-site in accordance with the *Principals of Best Practice* and as Permitted under an endorsed development plan.
- Installation and maintenance of erosion and sedimentation controls are to be in accordance with the Victorian Environment Protection Authority (EPA) best practice guidelines including *Environmental Guidelines for Major Construction Sites (1996)* and *Construction Techniques for Sediment Pollution Control (1991)*.
- Erosion and sediment controls must be adaptive and may require variations as works progress. Implementation will be conducted in accordance with the *Principals of Best Practice* of the EPA guidelines. Controls need to be monitored on a weekly basis at minimum, and additionally during and after rain events. Any defects or deficiencies in control measures identified by monitoring shall be rectified immediately. Control measures shall be cleaned, repaired and augmented as required to ensure effective control thereafter.
- Refilling of vehicles and machinery shall be done in a designated area no closer than 100 metres from any areas of retained vegetation or habitat or surface / stormwater drainage systems.

- Fuel and chemical are to be bunded to EPA guidelines and stored outside of flood zones. A contingency plan shall address containment, treatment and disposal of any spill.
- During works, clear communication must be made to construction personnel of expected mitigation measures and the importance of maintaining ecological values. Direct disturbance such as unplanned movement of construction equipment or indirect disturbances such as spills from machinery which could have a detrimental effect on retained vegetation or habitat areas are to be immediately rectified and measures put in place to prevent reoccurrences. There are to be no direct or indirect impacts on any ecological values outside of the sales centre development construction footprint.

These management requirements are to be included in a Construction Environmental Management Plan, developed prior to construction taking place.

6. LEGISLATIVE AND POLICY IMPLICATIONS

6.1 ENVIRONMENTAL PROTECTION AND BIODIVERSITY CONSERVATION ACT

Under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), an action will require approval from the Federal Environment Minister if the action has, will have, or is likely to have a significant impact on a matter of national environmental significance.

Documentation on the referral process, including documentation requirements, can be obtained by contacting the Department of the Environment's Community Information Unit on (02) 6274 1111, or by accessing the EPBC website.

Two threatened ecological communities*; Natural Damp Grassland of the Victorian Coastal Plains* and *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland*, both Critically endangered communities, were nominated by the Protected Matters Search Tool (DoE 2015) as being likely to occur within the development area. Neither of these vegetation communities were identified on site. Furthermore, the predominant remnant canopy trees found on site, namely Mealy Stringybark (*Eucalyptus cephalocarpa* s.s.) and Swamp Gum (*Eucalyptus ovata*), are not indicative of either of these communities.

Two fauna taxa listed as threatened under the EPBC Act were either recorded flying over the site, or identified as species which may utilize the site on an intermittent basis. These species include:

- Swift Parrot (*Lathamus discolor*), which may occasionally forage on flowering eucalypts at the site during migration between Tasmania and the mainland. It is unlikely that the species regularly utilises habitat at the site or is reliant upon it.
- Grey-headed Flying-fox (*Pteropus poliocephalus*) appears to periodically travel through or fly over the site, and may occasionally feed on flowering eucalypts within the study area. However, the relatively small number of eucalypts at the site and the high mobility of this species suggests that the Grey-headed Flying-fox is unlikely to be reliant upon habitat at the site.

The removal of six small native canopy trees is not considered likely to have any significant impact on either of these species. An EPBC referral is not recommended in this instance for the development of the sales centre and associated infrastructure.

Referral requirements under the EPBC Act for impacts within the wider development plan are considered in accompanying Ecological Assessments for the Stage 1 – 7 Development area and the Wetlands Development area under separate applications (Ecocentric in preparation).

6.2 FLORA AND FAUNA GUARANTEE ACT

The Victorian *Flora and Fauna Guarantee Act 1988 (Vic)* (FFG Act) endeavours to prevent the extinction of biota and ecological communities within the state. The FFG Act applies to public land only. Under the Act, a permit is required to remove listed flora or fauna species from public land.

Potentially threatening processes

There are several threatening processes (as defined under the FFG Act), outlined below, that may require consideration as part of the proposed development. Schedule 3 for the FFG Act lists a range of 'Potentially Threatening Processes'. These processes have been identified as a threat to the survival of one or more species of flora or fauna or a community. Threatening processes include (amongst others):

- Invasion of native vegetation by Blackberry (**Rubus fructicosus* spp. agg.).
- Invasion of native vegetation by 'environmental weeds'.
- Predation of native wildlife by the Domestic Cat (**Felis catus*).
- Predation of native wildlife by the introduced Red Fox (**Vulpes vulpes*).
- Reduction in biomass and biodiversity of native vegetation through grazing by Rabbits (**Oryctolagus cuniculus*).
- Spread of Root Rot Fungus (**Phytophthora cinnamomi*) from infected sites into parks and reserves, including roadsides, under the control of a state or local government authority.
- Use of Root Rot Fungus-infected gravel for the construction of roads, bridges and reservoirs.

6.2.1 FFG Act legislative implications

The sales centre development area supports no critical habitats for listed species or ecological communities. It is our understanding that the proposed development would therefore not require referral to the Department of Environment, Land, Water and Planning under the FFG Act.

Please note that this report identifies ecological values and unavoidable impacts limited to the sales centre development area (see Figure 1 for details). The remainder of the property, generally described as the Stage 1 – 7 Development area and the Wetlands Development area, is assessed under separate applications (Ecocentric in preparation).

6.3 PLANNING AND ENVIRONMENT ACT 1987 (VIC)

The *Planning and Environment Act 1987 (Vic)* provides a legislative framework for the *Victorian Planning Provisions*, commonly referred to as the Planning Scheme. The Planning Scheme sets out the conditions for development within Victoria. Section 52.17 *Native vegetation* is considered below.

6.3.1 Guidelines for the Removal, Destruction or Lopping of Native Vegetation

The *Guidelines for the Removal, Destruction or Lopping of Native Vegetation* policy (DELWP 2017; the *Guidelines 2017* policy) have been designed to manage the risk to Victoria's biodiversity associated with the removal of native vegetation. The *Guidelines 2017* policy is incorporated into the Victoria Planning Provisions and all planning schemes in Victoria under the *Planning and Environment Act 1987 (Vic).* The principal tenet of the *Guidelines 2017* policy is to ensure permitted clearing of native vegetation results in no net loss

in the contribution made by native vegetation to Victoria's biodiversity. This is achieved through the following approach:

- Avoid the removal, destruction or lopping of native vegetation.
- Minimise impacts from the removal, destruction or lopping of native vegetation that cannot be avoided.
- Provide an offset to compensate for the biodiversity impact from the removal, destruction or lopping of native vegetation (DELWP 2017).

Native vegetation is defined in planning schemes as 'plants that are indigenous to Victoria, including trees, shrubs, herbs and grasses'. The *Guidelines 2017* policy further classify native vegetation as a patch or a scattered tree (see Section 2.1.1).

The three-step approach (avoid, minimise, offset) is the key policy in relation to the removal of native vegetation to achieve no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. It is a precautionary approach that aims to ensure that the removal of native vegetation is restricted to only what is reasonably necessary, and that biodiversity is appropriately compensated for in the event that native vegetation losses cannot be avoided, and where Permitted by the Responsible Authority (DELWP 2017). A combination of site-based and landscape scale information is used to calculate the biodiversity value of native vegetation to be removed. This information is used to determine the loss in biodiversity value that needs to be compensated with an offset that provides an equivalent gain in biodiversity value, and the assessment pathway that is to be applied in an application to remove native vegetation.

The assessment pathway for an application to remove native vegetation reflects its potential impact on biodiversity and is determined from the location and extent of the native vegetation to be removed. The three assessment pathways are:

Basic – limited impacts on biodiversity.

Intermediate – could impact on large trees, endangered EVCs, and sensitive wetlands and coastal areas.

Detailed – could impact on large trees, endangered EVCs, sensitive wetlands and coastal areas, and could significantly impact on habitat for rare or threatened species.

The assessment pathway determines the information that accompanies an application and the decision guidelines that are considered in determining the outcome of an application (DELWP 2017). The assessment pathway of an application is determined in accordance with the table below.

Table 7. Determining assessment pathway

EXTENT	LOCATION CATEGORY		
	LOCATION 1	LOCATION 2	LOCATION 3
<0.5 hectares and not including any large trees	Basic	Intermediate	Detailed
≥0.5 hectares and including one or more large trees	Intermediate	Intermediate	Detailed
≥ 0.5 hectare	Detailed	Detailed	Detailed

6.3.2 Native vegetation clearance legislative and policy implications

A total area of 0.029 hectares of Valley Heathy Forest (EVC 127) within the proposed development area was identified on site as native vegetation *patch* under the *Guidelines 2017* policy (site of three or more native canopy trees with overlapping canopies). This patch was identified as native vegetation that would trigger a Planning Permit requirement under Section 52.17 of the Planning Scheme if impacted, and which may require an Offset under a Basic Assessment Pathway (see Appendix 9.6 maps for details). Please note however that total native vegetation losses across the broader development area (including the Stage 1 – 7 and Wetlands development areas) will trigger a Detailed Assessment Pathway, and that native vegetation losses associated with the Sales Centre Development will be included in Offset considerations as *past removal* impacts in accordance with the *Guidelines 2017* policy.

The extent of native vegetation loss, habitat condition and modelled species habitat mapping layers were processed using the EnSym tool in order to determine native Vegetation Offset targets; the EnSym report provides offset requirements for internal testing of different proposals to remove native vegetation. GIS shapefiles for the native vegetation loss area were further processed by DELWP to produce a Native Vegetation Removal (NVR) report identifying an Offset target for the project. This Offset target is to be secured prior to the commencement of works in order to ensure that there is 'no net loss' of biodiversity value associated with this project.

Table 8 below outlines the extent of native vegetation clearance associated with the sales centre development area, and identifies the commensurate Offset target as identified in the EnSym report (see also Appendix 9.5 for details); a Native Vegetation Removal (NVR) report will be obtained as a Permit condition and once the extent of the development is finalised. These Offset targets will be purchased from a third-party Offset Credit supplier registered on the DELWP Native Vegetation Credit Register and transferred to the project with an Allocated Credit Extract. The Allocated Credit Extract is to be secured *prior* to the clearance of any native vegetation on site.

Table 8. Vegetation clearance and offset requirements

VEGETATION CLEARANCE	
Assessment pathway	Basic Assessment Pathway^
Extent including past and proposed	0.0294 ha
Extent of past removal	0.000 ha
Extent of proposed removal	0.0294 ha
No. Large trees proposed to be removed	0

Location category	Location 1 The native vegetation is not in an area mapped as an endangered Ecological Vegetation Class (as per the statewide EVC map), sensitive wetland or coastal area. Removal of less than 0.5 hectares in this location will not have a significant impact on any habitat for a rare or threatened species.
OFFSET REQUIREMENTS	
General offset amount	**0.003 general habitat units**
Vicinity	Port Phillip and Westernport Catchment Management Authority (CMA) or Knox City Council.
Minimum strategic biodiversity value score	0.098
Large trees	0 large trees
^ Total losses across the property associated with the broader development will trigger a Detailed Referral Pathway.	

6.3.3 Native vegetation avoid and minimise statement

Every effort has been made through careful consideration of the project design and sighting of proposed building envelopes to avoid and minimise impacts associated with the loss of native vegetation on site. Avoidance measures include (but are not limited to):

- Construction of the sales centre development is to be constrained to the extent of the construction footprint identified in the *Sales Centre Tree Removal Plan* with no impacts to native vegetation outside of the works area other than impacts on TPZ.
- There is to be no storage of construction material, parking of vehicles, or clearing of native vegetation outside of the sales centre development areas as identified by the *Sales Centre Plan* and the identified site access corridor.
- Native vegetation losses associated with the proposed development are to be limited to the minimum extent necessary for construction of the sales and information centre and associated infrastructure, and will include:
    - Removal of native canopy trees identified in Table 5 above for the construction of the access point to Scoresby Road as identified in the *Sales Centre Tree Removal Plan*; as well as,
    - Retention of native canopy trees to either side of the Scoresby Road access point and along the property boundaries (see Appendix 9.6 maps for details).
- With the exception of the aforementioned losses, there is to be no additional loss of canopy trees associated with this project; with the possible exception of impacts, not losses, associated with judicious pruning of selective branches under the supervision of a qualified and experienced arboriculture consultant if required to make the site safe for contractors and visitors.

The Offset target for this project is for **0.003 General Habitat Units (no large trees required)** (with a minimum Strategic Biodiversity Value (SBV) score of 0.098), from an Offset Site in the Port Phillip and Westernport Catchment Management Authority (CMA) or Knox City Council; there are no waterway or wetland losses associated with this proposal.

A suitable Offset Site, listed on the DELWP Native Vegetation Credit Register (TFN-C1763_3), has been identified, and the Offset target has been reserved from that site for this project (see also Appendix 9.5 for details). These Offset Credits will therefore be purchased and secured with an Allocated Credit Extract prior to the commencement of native vegetation clearance works.

6.4 CATCHMENT AND LAND PROTECTION ACT

The Victorian *Catchment and Land Protection Act 1994* (CaLP Act) contains provisions relating to the integrated management and protection of catchments, encourages community participation in the management of land and water resources, and sets up a system of controls for the management of noxious weeds and pest animals. This Act also provides a legislative framework for the integrated and coordinated management of private and public land at a catchment level which:

- Focuses on long-term land productivity while also conserving the environment.
- Ensures that the quality of the State's land and water resources and their associated plant and animal life are maintained and enhanced.
- Establishes processes that can be used to assess the condition of the State's land and water resources and the effectiveness of land protection measures.
- Establishes processes to encourage and support participation of land holders, resource managers and other members of the community in catchment management and land protection.
- Establishes and supports the operation of the Victorian Catchment Management Council and the Catchment Management Authorities.
- Provides for the control of noxious weeds and pest animals.

Under the CaLP Act, declared noxious weeds are categorised into four groups depending on their known and potential impact and specific circumstances for each region. These categories include:

- State Prohibited Weeds (SP) are either currently absent in Victoria or are restricted enough to be eradicated. The Victorian Government is responsible for their control.
- Regionally Prohibited Weeds (RP) in the Port Phillip Catchment Management Authority area are not necessarily widespread, but have the potential to become widespread. It is expected that weeds that meet this criterion can be eradicated from the region. Control of weeds considered to be Regionally Prohibited is the responsibility of the land owner on their own land, although not on adjacent roadside reserves.
- Regionally Controlled Weeds (RC) are usually widespread; however, it is important to prevent their further spread. It is the responsibility of the landowner to control these weeds on their property and on adjacent roadside reserves.

- Restricted weeds occur in other states and are considered to be a serious threat to primary production, Crown land, the environment and/or community health if they were traded in Victoria.

Please note that seven noxious weeds were recorded on the property. Table 9 lists noxious weeds and their CaLP Act status within the Port Phillip and Westernport Catchment Management Authority area.

Table 9. Noxious weeds recorded at the development area

Common name	Scientific name	CaLP status
Angled Onion	*Allium triquetrum*	Restricted
Spear Thistle	*Cirsium vulgare*	Controlled
Artichoke Thistle	*Cynara cardunculus*	Controlled
Montpellier Broom	*Genista monspessulana*	Controlled
Blackberry	*Rubus fruticosus* spp. agg	Controlled
Willow	*Salix* spp.	Restricted
Bulbil Watsonia	*Watsonia meriana* var. *bulbillifera*	Controlled

These species will require control at the site in order to prevent their spread from the property during and after construction, in accordance with the CaLP Act. The ultimate goal should be to completely eradicate these species from the site, in order to prevent any possibility that they would spread into adjacent natural areas.

6.5 ENVIRONMENT EFFECTS ACT

The Victorian *Environment Effects Act 1978 (Vic)* is the legislation that applies to the process of investigating and considering the potential environmental impacts or effects of a proposed development. The Act requires the preparation for an Environmental Effects Statement (EES) if the Minister for Planning determines that a statement is required upon review of a referral. The Minister might typically require a proponent to prepare an EES when:

- There is a likelihood of regionally or State significant adverse effects on the environment;
- There is a need for integrated assessment of potential environmental effects (including economic and social effects) of a project and relevant alternatives; and
- Normal statutory processes would not provide a sufficiently comprehensive, integrated and transparent assessment (DSE 2006).

Triggers for referral under the Act fall into two categories: potential effects on individually defined criteria; or potential effects on a combination of two or more criteria. Individual types of potential effects on the environment that might be of

regional or State significance, and therefore warrant referral of a project, include:

- Potential clearing of 10 ha or more of native vegetation from an area that:
    - is of an Ecological Vegetation Class identified as endangered by DELWP; or
    - is, or is likely to be, of very high conservation significance; and
    - is not authorised under an approved Forest Management Plan or Fire Protection Plan.
- Potential long-term loss of a significant proportion (e.g. 1 to 5 percent, depending on the conservation status of the species) of known remaining habitat or population of a threatened species within Victoria;
- Potential long-term change to the ecological character of a wetland listed under the Ramsar Convention or in 'A Directory of Important Wetlands in Australia';
- Potential extensive or major effects on the health or biodiversity of aquatic, estuarine or marine ecosystems, over the long term;
- Potential extensive or major effects on the health, safety or well-being of a human community, due to emissions to air or water or chemical hazards or displacement of residences; or
- Potential greenhouse gas emissions exceeding 200,000 tonnes of carbon dioxide equivalent per annum, directly attributable to the operation of the facility (DSE 2006).

A combination of two or more of the following types of potential effects on the environment that might be of regional or State significance, and therefore warrant referral of a project, include:

- Potential clearing of 10 ha or more of native vegetation, unless authorised under an approved Forest Management Plan or Fire Protection Plan;
- Matters listed under the Flora and Fauna Guarantee Act 1988:
    - potential loss of a significant area of a listed ecological community; or
    - potential loss of a genetically important population of an endangered or threatened species (listed or nominated for listing), including as a result of loss or fragmentation of habitats; or
    - potential loss of critical habitat; or
    - potential significant effects on habitat values of a wetland supporting migratory bird species.
- Potential extensive or major effects on landscape values of regional importance, especially where recognised by a planning scheme overlay or within or adjoining land reserved under the National Parks Act 1975;
- Potential extensive or major effects on land stability, acid sulphate soils or highly erodible soils over the short or long term;

- Potential extensive or major effects on beneficial uses of waterbodies over the long term due to changes in water quality, stream-flows or regional groundwater levels;
- Potential extensive or major effects on social or economic well-being due to direct or indirect displacement of non-residential land use activities;
- Potential for extensive displacement of residences or severance of residential access to community resources due to infrastructure development;
- Potential significant effects on the amenity of a substantial number of residents, due to extensive or major, long-term changes in visual, noise and traffic conditions;
- Potential exposure of a human community to severe or chronic health or safety hazards over the short or long term, due to emissions to air or water or noise or chemical hazards or associated transport;
- Potential extensive or major effects on Aboriginal cultural heritage;
- Potential extensive or major effects on cultural heritage places listed on the Heritage Register or the Archaeological Inventory under the Heritage Act 1995 (DSE 2006).

The loss of 0.0294 hectares at the Scoresby Road access point is not considered to be significant, and the proposed sales centre development would not require referral to the Minister for Planning for consideration under the Environmental Effects Act.

We also note that development of the broader property is not considered likely to result in significant vegetation losses, and that neither the Stage 1 – 7 nor the Wetlands Developments are considered likely to trigger a referral requirement under the *Environment Effects Act 1978 (Vic)*.

6.6 WILDLIFE ACT

The purpose of the Victorian *Wildlife Act 1975 (Vic)* is to establish procedures in order to promote the protection and conservation of wildlife, prevent wildlife from becoming extinct, and to prohibit and regulate the conduct of persons engaged in activities concerning or related to wildlife. The Act requires people engaged in wildlife research (such as fauna surveys, salvage or translocation activities) to obtain a permit in order to ensure that these activities are undertaken with appropriate conservation and protection measures.

6.6.1 Wildlife Regulations 2014

The objectives of the *Wildlife Regulations 2014* are:

- To provide for the management and conservation of wildlife and wildlife habitat;
- To provide for humane use of and access to wildlife;
- To make further provision in relation to the licensing system established by section 22 of the *Wildlife Act 1975*;

- To prescribe fees, offences, royalties and various other matters for the purposes of the *Wildlife Act 1975*; and
- To provide for exemptions from certain provisions of the *Wildlife Act 1975*.

Under the *Wildlife Regulations 2014* a person, unless licensed, permitted or authorised to do so under the Act:

- Must not wilfully damage, disturb or destroy any wildlife habitat;
- Must not use a bait, lure, poison, decoy, or live animal to attract wildlife for the purpose of taking that wildlife;
- Must not use a firearm from an aircraft, motor vehicle, boat, or any other vehicle to take wildlife;
- Must not use an aircraft, motor vehicle, boat, or any other vehicle to pursue, chase, or harass wildlife;
- Must not use an artificial light, electronic device, or recorded sound to hunt or take wildlife; and
- Must not use a gun, bow or other weapon, trap, or any other equipment or substance for the purpose of taking wildlife.

Authorisation to conduct wildlife research or wildlife management can be obtained under the Act, and is subject to any conditions, limitations or restrictions placed on that authorisation. Proponents must allow inspection by an authorised officer, at any reasonable time, for the purpose of monitoring compliance with this Act.

The *Wildlife Regulations 2014* supersede the *Wildlife Regulations 2002*, *Wildlife (Amendment) Regulations 2004*, and the *Wildlife Amendment Regulations 2009*.

The relocation or removal of any native wildlife from the sales centre development area must therefore be conducted by a qualified, licenced and experienced contractor with Permits as required to conduct these works. This includes the salvage and relocation of any wildlife from tree hollows that may be encountered during construction, or in the unlikely event that wildlife strays onto the site from neighbouring areas.

7. CONCLUSION

This report assesses ecological impacts associated with the sales centre development. This includes areas of remnant native vegetation and planted native trees that will be impacted by the construction works program.

The sales centre development will result in the unavoidable loss of planted native canopy trees from the property boundary at the Scoresby Road access point. These impacts will be Offset in accordance with Victoria's *Guidelines for the Removal, Destruction or Lopping of Native Vegetation* policy (DELWP 2017).

Native vegetation losses associated with the sales centre development program are to be limited to the minimum extent necessary for the construction of the Scoresby Road access, and will include:

- Selective removal of native scattered trees and areas that qualify as 'patches' under the *Guidelines 2017* policy that cannot be avoided;
- Retention of all other native trees and native vegetation patches where practicable to do so.

With the exception of the aforementioned losses, there is to be no additional loss of canopy trees associated with this project; with the possible exception of impacts, not losses, associated with judicious pruning of selective branches under the supervision of a qualified and experienced arboriculture consultant and as required to ensure site safety. Assessments of tree structural integrity and pedestrian safety is provided in the *Arborist Assessment* report (Galbraith 2020) and not considered in detail in this report. Tree losses associated with maintenance of public safety, if required or deemed necessary, may trigger additional Native Vegetation Offset requirements in accordance with the *Guidelines 2017* policy.

Table 10 (overleaf) provides a summary of legislative and associated policy requirements for this proposal.

Table 10. Summary of legislative and associated policy requirements

Legislative Act and associated policy		Planning considerations	Further actions
EPBC Act 1999 (CwIth)		No vegetation communities listed as threatened under the EPBC Act were identified on site. No flora or fauna listed as threatened under the EPBC Act were recorded on site, and it is considered unlikely that this property would support a viable population of any threatened flora or fauna taxa. No impacts associated with the development of this site are considered likely to result in a significant impact on a Matter of National Environmental Significance (MNES); a referral to the Federal Department of the Environment and Energy is not required in this instance.	No referral required.
FFG Act 1988 (Vic)		No vegetation communities nor flora or fauna species listed as threatened under the FFG Act were identified on site. There are several threatening processes that may have to be considered as part of the proposal's development plan and Construction Environmental Management Plan.	No referral required. Consideration of threatening processes are to be incorporated in a CEMP for the development of this site.
Planning and Environment Act 1987 (Vic)	Section 52.17: *Guidelines for the Removal, Destruction or Lopping of Native Vegetation* (DELWP 2017)	Habitat Zone 15A meets the definition of a 'Patch' under Victoria's *Guidelines for the Removal, Destruction or Lopping of Native Vegetation* policy (DELWP 2017); there are no scattered trees within the development area. The proposed removal of Habitat Zone 15A will require a permit under Section 52.17 of the Planning Scheme, and Native Vegetation Offsets in accordance with the *Guidelines 2017* (DEPI 2017) policy. A Native Vegetation Removal (NVR) report will be required to identify Offset targets once a development plan is finalised.	Submit a Planning Permit application to Knox City Council identifying avoidance and minimisation measures adopted, and unavoidable losses and commensurate *Guidelines 2017* Offset policy targets. A CEMP is to be developed for the site and implemented by the contractors to ensure that mitigation measures outlined in Section 5 are delivered on site; the CEMP is to be subject to endorsement by the Responsible Authority. An Offset Management Plan is to be provided upon confirmation of an endorsed development plan; the OMP is to be subject to endorsement by the Responsible Authority.
Catchment and Land Protection Act 1994 (Vic)		Seven Regionally Controlled or Restricted noxious weeds were recorded at the development area. These species are to be controlled on site, and prevented from spreading beyond the property during and after the construction phase.	Control and/or eliminate regionally controlled or noxious weeds as part of the CEMP.
Environment Effects Act 1978 (Vic)		No individually defined criteria, nor combinations of two or more criteria, trigger referral of this project to the Minister for Planning.	None required
Wildlife Act 1975 (Vic)		It may be necessary to contract the wildlife rescue services of a suitably qualified and experienced zoologist – a firm or individual with a current permit to handle wildlife under the Wildlife Act 1975 (Vic) – for salvage of arboreal mammals, bats and/or birds if mature eucalypts (including exotic species) are removed.	Engage a suitably qualified and experienced contractor, if required, to manage the salvage and relocation of native fauna associated with the removal of any large trees on site.

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9. APPENDICES

9.1 FLORA RECORDED WITHIN THE PROPERTY

(CURRENT SURVEYS AND ECOCENTRIC 2015)

Origin	Scientific name	Common name	CaLP Act listing	Significant species^
# P	*Acacia baileyana*	Cootamundra Wattle		
	Acacia dealbata subsp. *dealbata*	Silver Wattle		
	Acacia mearnsii	Black Wattle		
	Acacia melanoxylon	Blackwood		
	Acacia stricta	Hop Wattle		Y
	Acaena novae-zelandiae	Bidgee-widgee		
*	*Acetosella vulgaris*	Sheep Sorrel		
*	*Agapanthus praecox* subsp. *orientalis*	Agapanthus		
*	*Agrostis capillaris* var. *capillaris*	Brown-top Bent		
*	*Allium triquetrum*	Angled Onion	Restricted	
P	*Allocasuarina littoralis*	Black Sheoak		
# P	*Allocasuarina torulosa*	Forest Oak		
P	*Allocasuarina verticillata*	Drooping Sheoak		
	Alternanthera denticulata	Lesser Joyweed		
# P	*Angophora costata* subsp. *costata*	Smooth-barked Apple		
*	*Anthoxanthum odoratum*	Sweet Vernal-grass		
*	*Aphanes arvensis*	Parsley Piert		
*	*Arctotheca calendula*	Cape Weed		
*	*Aster subulatus*	Aster-weed		
	Austrostipa rudis subsp. *rudis*	Veined Spear-grass		
*	*Betula pendula*	Silver Birch		
*	*Briza maxima*	Large Quaking-grass		
*	*Bromus catharticus* var. *catharticus*	Prairie Grass		
# P	*Callistemon citrinus*	Crimson Bottlebrush		
*	*Calystegia silvatica*	Greater Bindweed		
*	*Cardamine hirsuta s.s.*	Common Bitter-cress		
*	*Cenchrus clandestinus*	Kikuyu		
*	*Centaurium erythraea*	Common Centaury		
*	*Cerastium glomeratum s.l.*	Common Mouse-ear Chickweed		
*	*Chamaecytisus palmensis*	Tree Lucerne		
*	*Cirsium vulgare*	Spear Thistle	Controlled	
*	*Coprosma repens*	Mirror Bush		
P	*Correa glabra*	Rock Correa		
# P	*Corymbia ficifolia*	Red-flowering Gum		
# P	*Corymbia maculata*	Spotted Gum		
*	*Cotoneaster glaucophyllus* var. *serotinus*	Large-leaf Cotoneaster		
* P	*Cupressus spp.*	Cypress		
*	*Cynara cardunculus*	Artichoke Thistle	Controlled	
*	*Cynodon dactylon* var. *dactylon*	Couch		
*	*Cyperus eragrostis*	Drain Flat-sedge		
*	*Dactylis glomerata*	Cocksfoot		
	Dianella laevis	Smooth Flax-lily		Y
*	*Echinochloa crus-galli*	Barnyard Grass		
*	*Ehrharta erecta* var. *erecta*	Panic Veldt-grass		
*	*Ehrharta longiflora*	Annual Veldt-grass		

Origin	Scientific name	Common name	CaLP Act listing	Significant species^
	Einadia nutans	Nodding Saltbush		
	Epilobium billardierianum subsp. *billardierianum*	Smooth Willow-herb		
*	*Eragrostis pilosa*	Soft Love-grass		
*	*Erica lusitanica*	Spanish Heath		
*	*Erigeron bonariensis*	Flaxleaf Fleabane		
*	*Erigeron sumatrensis*	Tall Fleabane		
*	*Erodium moschatum*	Musky Heron's-bill		
# P	*Eucalyptus botryoides*	Southern Mahogany		
	Eucalyptus cephalocarpa	Mealy Stringybark		
# P	*Eucalyptus cladocalyx*	Sugar Gum		
# P	*Eucalyptus globulus* subsp. *globulus*	Southern Blue-gum		
	Eucalyptus goniocalyx s.s.	Bundy		
# P	*Eucalyptus leucoxylon* ssp. *rosea*	Yellow Gum		
	Eucalyptus melliodora	Yellow Box		
# P	*Eucalyptus nicholii*	Narrow-leaved Black Peppermint		
	Eucalyptus ovata var. *ovata*	Swamp Gum		
# P	*Eucalyptus sideroxylon* subsp. *sideroxylon*	Mugga		
	Eucalyptus viminalis subsp. *viminalis*	Manna Gum		
	Euchiton japonicus	Creeping Cudweed		
*	*Fraxinus angustifolia* subsp. *angustifolia*	Desert Ash		
*	*Fumaria bastardii*	Bastard's Fumitory		
*	*Fumaria capreolata*	White Fumitory		
*	*Galium aparine*	Cleavers		
*	*Gamochaeta purpurea s.l.*	Purple Cudweed		
*	*Genista linifolia*	Flax-leaf Broom		
*	*Genista monspessulana*	Montpellier Broom	Controlled	
*	*Geranium dissectum*	Cut-leaf Crane's-bill		
	Goodenia ovata	Hop Goodenia		
# P	*Grevillea robusta*	Silky Oak		
# P	*Grevillea* spp.	Grevillea cultivar		
*	*Hedera helix*	English Ivy		
*	*Helminthotheca echioides*	Ox-tongue		
*	*Holcus lanatus*	Yorkshire Fog		
*	*Hypochaeris radicata*	Flatweed		
*	*Ligustrum lucidum*	Large-leaf Privet		
*	*Lolium perenne* var. *perenne*	Perennial Rye-grass		
*	*Lotus subbiflorus*	Hairy Bird's-foot Trefoil		
*	*Lysimachia arvensis* var. *arvensis*	Scarlet Pimpernel		
	Lythrum hyssopifolia	Small Loosestrife		
*	*Malus pumila*	Apple		
*	*Malva nicaeensis*	Mallow of Nice		
# P	*Melaleuca armillaris* subsp. *armillaris*	Giant Honey-myrtle		
# P	*Melaleuca nesophila*	Showy Honey-myrtle		
# P	*Melaleuca styphelioides*	Prickly Paperbark		
	Microlaena stipoides var. *stipoides*	Weeping Grass		
	Oxalis exilis	Shady Wood-sorrel		
*	*Oxalis pes-caprae*	Soursob		
	Ozothamnus ferrugineus	Tree Everlasting		Y

Origin	Scientific name	Common name	CaLP Act listing	Significant species^
*	*Paspalum dilatatum*	Paspalum		
*	*Pelargonium X hortorum*	Zonal Pelargonium		
*	*Phleum pratense*	Timothy Grass		
*	*Pinus radiata* var. *radiata*	Radiata Pine		
#	*Pittosporum undulatum*	Sweet Pittosporum		
*	*Plantago lanceolata*	Ribwort		
*	*Plantago coronopus*	Buck's-horn Plantain		
*	*Poa annua*	Annual Meadow-grass		
*	*Polygonum aviculare s.l.*	Prostrate Knotweed		
*	*Prunella vulgaris*	Self-heal		
	Pseudognaphalium luteoalbum	Jersey Cudweed		
*	*Raphanus raphanistrum*	Wild Radish		
*	*Romulea rosea* var. *australis s.s.*	Common Onion-grass		
*	*Rubus anglocandicans*	Common Blackberry	Controlled	
*	*Rumex crispus*	Curled Dock		
	Rytidosperma fulvum	Copper-awned Wallaby-grass		
	Rytidosperma racemosum var. *racemosum*	Slender Wallaby-grass		
	Rytidosperma setaceum	Bristly Wallaby-grass		
	Rytidosperma spp.	Wallaby Grass		
*	*Salix* spp.	Willow	Restricted	
	Senecio campylocarpus	Floodplain Fireweed		Y
	Senecio glomeratus	Annual Fireweed		
	Senecio quadridentatus	Cotton Fireweed		
*	*Solanum nigrum s.l.*	Black Nightshade		
*	*Sonchus asper s.l.*	Rough Sow-thistle		
*	*Sonchus oleraceus*	Common Sow-thistle		
*	*Sporobolus africanus*	Rat-tail Grass		
*	*Stellaria media*	Chickweed		
*	*Taraxacum officinale* spp. agg.	Garden Dandelion		
*	*Trifolium fragiferum* var. *fragiferum*	Strawberry Clover		
*	*Trifolium glomeratum*	Cluster Clover		
*	*Trifolium repens* var. *repens*	White Clover		
# P	*Tristaniopsis laurina*	Kanooka		
*	*Veronica arvensis*	Wall Speedwell		
*	*Vicia sativa* subsp. *sativa*	Common Vetch		
*	*Vulpia bromoides*	Squirrel-tail Fescue		
*	*Vulpia myuros*	Rat's-tail Fescue		
*	*Watsonia meriana* var. *bulbillifera*	Bulbil Watsonia	Controlled	

*** denotes introduced, exotic species**
P denotes planted species (both native sources and nursery cultivars)

9.2 FAUNA RECORDED WITHIN THE PROPERTY

(CURRENT SURVEYS AND ECOCENTRIC 2015)

Taxon Origin	Common Name	Scientific Name	EPBC	FFG	DSE (2013)
	Mammals				
	Grey-headed Flying-fox	*Pteropus poliocephalus*	Vu	L	vu
Introduced	Red Fox	*Vulpes vulpes*			
	Birds				
	Australasian Hobby	*Falco longipennis*			
	Australian Magpie	*Gymnorhina tibicen*			
	Australian Raven	*Corvus coronoides*			
Introduced	Common Blackbird	*Turdus merula*			
Introduced	Common Myna	*Acridotheres tristis*			
Introduced	Common Starling	*Sturnus vulgaris*			
	Crested Pigeon	*Ocyphaps lophotes*			
	Crimson Rosella	*Platycercus elegans*			
	Eastern Rosella	*Platycercus eximius*			
	Grey Butcherbird	*Cracticus torquatus*			
	Laughing Kookaburra	*Dacelo novaeguineae*			
	Little Corella	*Cacatua sanguinea*			
	Little Raven	*Corvus mellori*			
	Little Wattlebird	*Anthochaera chrysoptera*			
	Magpie-lark	*Grallina cyanoleuca*			
	Masked Lapwing	*Vanellus miles*			
Introduced	Noisy Miner	*Manorina melanocephala*			
	Rainbow Lorikeet	*Trichoglossus haematodus*			
	Red Wattlebird	*Anthochaera carunculata*			
Introduced	Spotted Turtle-Dove	*Streptopelia chinensis*			
	Welcome Swallow	*Petrochelidon neoxena*			
	Willie Wagtail	*Rhipidura leucophrys*			

***EPBC Act 1999 (Commonwealth)* conservation status:** EX: Extinct, CR: Critically endangered, EN: Endangered, VU: Vulnerable, CD: Conservation dependant.

Advisory List of Threatened Fauna (DSE 2013) status in Victoria: ex: Extinct, rx: Regionally Extinct, wx: Extinct in the Wild, cr: Critically Endangered, en: Endangered, vu: Vulnerable, r: Rare, nt: Near Threatened, dd: Data Deficient.

***FFG Act 1988 (Vic)* conservation status:** L: Listed, N: Nominated, I: Invalid or ineligible, D: Delisted.

9.3 SIGNIFICANT FLORA RECORDED WITHIN 5 KM (OR PREDICTED TO OCCUR)

Refer to spreadsheet – available upon request to author.

9.4 SIGNIFICANT FAUNA RECORDED WITHIN 5 KM (OR PREDICTED TO OCCUR)

Refer to spreadsheet – available upon request to author.

9.5 ENSYM OFFSET REPORT

(overleaf; to be substituted with a DELWP NVR report upon confirmation of the development extent)

Scenario test – native vegetation removal

This report provides offset requirements for internal testing of different proposals to remove native vegetation. **This report DOES NOT support an application to remove, destroy or lop native vegetation under Clause 52.16 or 52.17 of planning schemes in Victoria.** A report must be obtained from the Department of Environment, Land, Water and Planning (DELWP).

Date of issue: **18/02/2021**
Time of issue: **10:11 am**

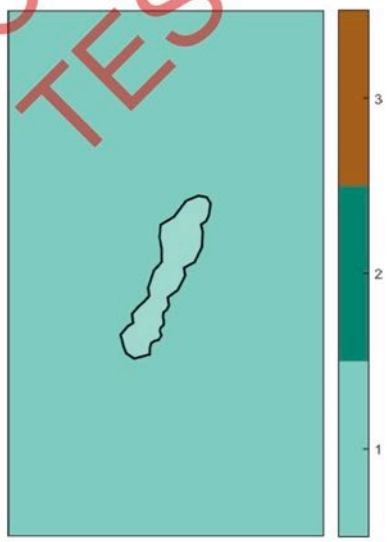
Report ID: Scenario Testing

Project ID	2021-02-18_20042_salesoffice_losses_v1.0

Assessment pathway

Assessment pathway	**Basic Assessment Pathway**
Extent including past and proposed	0.029 ha
Extent of past removal	0.000 ha
Extent of proposed removal	0.029 ha
No. Large trees proposed to be removed	0
Location category of proposed removal	Location 1 The native vegetation is not in an area mapped as an endangered Ecological Vegetation Class (as per the statewide EVC map), sensitive wetland or coastal area. Removal of less than 0.5 hectares in this location will not have a significant impact on any habitat for a rare or threatened species

1. Location map



Page 1

Scenario test – native vegetation removal

Offset requirements if a permit is granted

Any approval granted will include a condition to obtain an offset that meets the following requirements:

General offset amount[1]	0.003 general habitat units
Vicinity	Port Phillip and Westernport Catchment Management Authority (CMA) or Knox City Council
Minimum strategic biodiversity value score[2]	0.098
Large trees	0 large trees

NB: values within tables in this document may not add to the totals shown above due to rounding

Appendix 1 includes information about the native vegetation to be removed

Appendix 2 includes information about the rare or threatened species mapped at the site.

Appendix 3 includes maps showing native vegetation to be removed and extracts of relevant species habitat importance maps

1 The general offset amount required is the sum of all general habitat units in Appendix 1.

2 Minimum strategic biodiversity score is 80 per cent of the weighted average score across habitat zones where a general offset is required

Scenario test – native vegetation removal

Next steps

Any proposal to remove native vegetation must meet the application requirements of the Basic Assessment Pathway and it will be assessed under the Basic Assessment Pathway.

This report DOES NOT support an application to remove, destroy or lop native vegetation under Clause 52.16 or 52.17 of planning schemes in Victoria.

If you wish to remove the mapped native vegetation you must submit the related shapefiles to the Department of Environment, Land, Water and Planning (DELWP) for processing, by email to ensymnvrtool.support@delwp.vic.gov.au. DELWP will provide a *Native vegetation removal report* that is required to meet the permit application requirements in accordance with *Guidelines for the removal, destruction or lopping of native vegetation* (Guidelines).

Appendix 1: Description of native vegetation to be removed

All zones require a general offset, the general habitat units each zone is calculated by the following equation in accordance with the Guidelines:

General habitat units = extent x condition x general landscape factor x 1.5, where the general landscape factor = 0.5 + (strategic biodiversity value score/2)

The general offset amount required is the sum of all general habitat units per zone.

Native vegetation to be removed

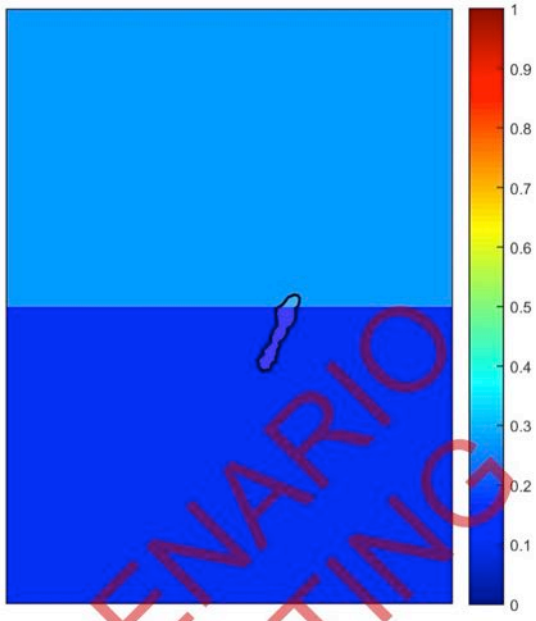
Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym					
Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
15-A	Patch	gipp0127	Endangered	0	no	0.140	0.029	0.029	0.123		0.003	General

Appendix 2: Information about impacts to rare or threatened species' habitats on site

This is not applicable in the Basic Assessment Pathway.

Appendix 3 – Images of mapped native vegetation

2. Strategic biodiversity values map



Page 6

9.6 MAPS

The following *Native Vegetation Losses* aerial map was produced using Quantum GIS (QGIS 3.10) and were developed from various datasets including:

- Aerial photography provided by Development Victoria,
- VicMap layers (Parcel, Roads, Waterways and Contours),
- GPS based data collected in the field.

The *Sales Centre Tree Removal Plan* was provided by MDG Landscape Architects (2021) and includes:

- *Development Master Plan* layout as provided by Architectus Pty Ltd (2021),
- Tree locations and identification details as provided by *Arborist Assessment* report (Galbraith 2020),
- Identification of retained, lost and retained where practicable tree categories as determined in collaboration by MDG Landscape Architects and Ecocentric.

NATIVE VEGETATION OFFSETS

Sales Office impacts

Stage 1 - 7 development losses

(denotes patch and scattered tree numbers)

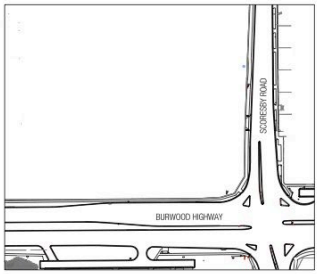
Sales Office construction footprint

Property boundaries (cadastre)

Scale: 1 : 1,000

Datum: GDA94MGA55

0 30 60 m



LOCATION PLAN NTS

LEGEND

- EXISTING NATIVE TREE & NATIVE NON CANOPY TREE & TPZ
- EXISTING NATIVE TREE & NATIVE NON CANOPY TREE & TPZ TO BE REMOVED
- PROPOSED GARDEN BED (INDICATIVE ONLY)
- PROPOSED PAVING (INDICATIVE ONLY)

SALES CENTRE, CAR PARK & LANDSCAPING INDICATIVE ONLY.

SCORESBY ROAD

BURWOOD HIGHWAY

NOTES
1. ALL SETOUTS SHALL BE CHECKED AND APPROVED BY THE SUPERINTENDENT PRIOR TO CONSTRUCTION.
2. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE SUPERINTENDENT, WHO SHALL FURTHER ISSUE INSTRUCTIONS.
3. DO NOT SCALE DRAWINGS. FIGURED DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS.
4. MATERIAL CODES SHALL HAVE PRECEDENCE OVER HATCHES. WHERE CODES ARE NOT SHOWN, REFER TO HATCH TYPE. WHERE DISCREPANCIES OR OMITTED DATA OCCUR, REFER TO SUPERINTENDENT FOR DIRECTION
5. ALL SHOP DRAWINGS SHALL BE SUBMITTED TO THE SUPERINTENDENT FOR APPROVAL PRIOR TO FABRICATION.
6. ALL FABRICATED ITEMS SHALL BE INSPECTED AND APPROVED BY THE SUPERINTENDENT PRIOR TO INSTALLATION.
7. THE CONTRACTOR SHALL LOCATE ALL SUBSURFACE SERVICES ETC. PRIOR TO EXCAVATION AND PROTECT SAME DURING CONSTRUCTION.
8. SERVICES LOCATION SHOWN ARE INDICATIVE ONLY. LOCATE ALL SERVICES ON SITE PRIOR TO PLANTING AND RELOCATE TREES TO 0.50M MIN. FROM SERVICES TO SUPERINTENDENTS APPROVAL.

DIAL BEFORE YOU DIG www.1100.com.au

REV.	DESCRIPTION	INIT.	DATE
F	FOR DV, COLLIE & ECOCENTRIC REVIEW	CM	18.03.2021
E	FOR DV & COLLIE REVIEW	CM	17.03.2021
D	PERMIT APPLICATION ISSUE	CM	16.02.2021
C	PRELIMINARY ISSUE FOR REVIEW	CM	03.02.2021
B	PRELIMINARY ISSUE FOR COLLIE REVIEW	CM	01.02.2021
A	PRELIMINARY ISSUE FOR CONSULTANT INFO.	AM	01.02.2021

MDG Landscape Architects
Level 3, 141 Flinders Lane
Melbourne, Victoria 3000 Australia
T: (03) 9650 6900
E: mail@mdgla.com.au

DEVELOPMENT VICTORIA

KNOX SALES CENTRE

DRAWING TITLE
KNOX SALES CENTRE INDICATIVE PLAN, NATIVE TREE & NATIVE NON CANOPY TREE RETENTION & REMOVALS PLAN

DATE	SCALE
FEB 2021	1:200 @ A1

FILE PATH
J:\1878 Knoxfield\N\5. Documentation\1.878F Knoxfield.dsplay

CHECKED	DRAWN
CM	OM

DRAWING NO.	REVISION
1878F-L01	F

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BURWOOD HIGHWAY

SCORESBY ROAD

TREE TO BE REMOVED

6.4

ARROW LINE MARKING TO BE INSTALLED IN ACCORDANCE WITH VICROADS SUPPLEMENT TO AS1742.2 CLAUSE 5.5.2.3

TREE TO BE REMOVED

TACTILE GROUND SURFACE INDICATORS TO BE INSTALLED IN ACCORDANCE WITH AS1428.1

RETAIN EXISTING POWER/LIGHT POLE

RRPM'S TO BE INSTALLED IN ACCORDANCE WITH VICROADS SUPPLEMENT TO AS1742.2 CLAUSE 5.6

#15(E)

#2
#16

3.00R

3.00R

B99 STANDARDS 2004 (AU_NZ)

#3(E)

1.0

#12
#3

#3

GIVEWAY LINE MARKING TO BE INSTALLED IN ACCORDANCE WITH VICROADS SUPPLEMENT TO AS1742.2, CLAUSE 5.4

INSTALL DRIVEWAY CROSSOVER IN ACCORDANCE WITH VICROADS ACCESS MANAGEMENT POLICY

INSTALL TEMPORARY TRAFFIC ISLAND

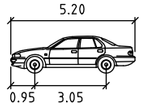
RETAIN EXISTING LANE LINE MARKING

GATE

SIGN SCHEDULE

#2	GIVE WAY	R1-2	#16	R2-14(L)
#3	KEEP LEFT	R2-3(L)	#15	40 AHEAD SCHOOL TIMES
#12		R2-6(R)		

GENERAL NOTES
1. ALL DIMENSIONS TO FACE OF KERB AND CHANNEL UNLESS NOTED.
2. DECLARED ROAD - SCORESBY ROAD (SPEED ZONE 80KM/H).
3. SIGNS AND LINE MARKING TO BE INSTALLED IN ACCORDANCE WITH VICROADS SUPPLEMENT TO AS1742.2.
4. REMOVE ALL REDUNDANT SIGNS AND LINE MARKING.
5. INSTALL TACTILE GROUND SURFACE INDICATORS IN ACCORDANCE WITH AS1428.4.1



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Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

SWEPT PATH LEGEND

- – – – – DESIGN VEHICLE SWEPT PATHS SHOWN DASHED
- --------- 500mm CLEARANCE ENVELOPE SHOWN DOTTED

onemilegrid
TRAFFIC ENGINEERING
56 Down Street, Collingwood, VIC 3066
Email: info@onemilegrid.com.au Web: www.onemilegrid.com.au
Phone (03) 9939 8250

Drawing Title
KNOXFIELD RESIDENTIAL DEVELOPMENT
SCORESBY ROAD TEMPORARY ACCESS
FUNCTIONAL LAYOUT PLAN

Designed	Approved	Melway Ref
TCW	JS	73 D1

Scale	Project Number	Drawing Number	Revision
1:250 @ A3	190752	FLP100	B

0 1.25 2.5 5

Aerial Photography
Aerial photography provided by Nearmap

CAD File: N:\Projects\2019\190752\Drawings\190752FLP100.dgn

Date Plotted: 07-12-2020 12:42:32 PM

BURWOOD HIGHWAY

SCORESBY ROAD

TREE TO BE REMOVED

6.4

ARROW LINE MARKING TO BE INSTALLED IN ACCORDANCE WITH VICROADS SUPPLEMENT TO AS1742.2 CLAUSE 5.5.2.3

TREE TO BE REMOVED

TACTILE GROUND SURFACE INDICATORS TO BE INSTALLED IN ACCORDANCE WITH AS1428.1

RETAIN EXISTING POWER/LIGHT POLE

RRPM'S TO BE INSTALLED IN ACCORDANCE WITH VICROADS SUPPLEMENT TO AS1742.2 CLAUSE 5.6

#15(E)

#2
#16

3.00R

3.00R

B99 STANDARDS 2004 (AU_NZ)

#3(E)

1.0

#12
#3

#3

GIVEWAY LINE MARKING TO BE INSTALLED IN ACCORDANCE WITH VICROADS SUPPLEMENT TO AS1742.2, CLAUSE 5.4

INSTALL DRIVEWAY CROSSOVER IN ACCORDANCE WITH VICROADS ACCESS MANAGEMENT POLICY

INSTALL TEMPORARY TRAFFIC ISLAND

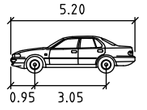
RETAIN EXISTING LANE LINE MARKING

GATE

SIGN SCHEDULE

#2	GIVE WAY	R1-2	#16	R2-14(L)
#3	KEEP LEFT	R2-3(L)	#15	40 AHEAD SCHOOL TIMES
#12		R2-6(R)		

GENERAL NOTES
1. ALL DIMENSIONS TO FACE OF KERB AND CHANNEL UNLESS NOTED.
2. DECLARED ROAD - SCORESBY ROAD (SPEED ZONE 80KM/H).
3. SIGNS AND LINE MARKING TO BE INSTALLED IN ACCORDANCE WITH VICROADS SUPPLEMENT TO AS1742.2.
4. REMOVE ALL REDUNDANT SIGNS AND LINE MARKING.
5. INSTALL TACTILE GROUND SURFACE INDICATORS IN ACCORDANCE WITH AS1428.4.1



B99	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

SWEPT PATH LEGEND

- – – – – DESIGN VEHICLE SWEPT PATHS SHOWN DASHED
- --------- 500mm CLEARANCE ENVELOPE SHOWN DOTTED

onemilegrid
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56 Down Street, Collingwood, VIC 3066
Email: info@onemilegrid.com.au Web: www.onemilegrid.com.au
Phone (03) 9939 8250

Drawing Title
KNOXFIELD RESIDENTIAL DEVELOPMENT
SCORESBY ROAD TEMPORARY ACCESS
FUNCTIONAL LAYOUT PLAN

Designed	Approved	Melway Ref
TCW	JS	73 D1

Scale	Project Number	Drawing Number	Revision
1:250 @ A3	190752	FLP100	B

0 1.25 2.5 5

Aerial Photography
Aerial photography provided by Nearmap

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