MORNINGTON PENINSULA Shire

ATTACHMENTS

COUNCIL MEETING

TUESDAY, 11 MARCH 2025

6:30PM

MUNICIPAL OFFICES
BESGROVE STREET, ROSEBUD

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Councillor Briefing Sessions

MORNINGTON PENINSULA Shire

Briefing Date: 18/02/2025 **Time:** 6.00pm **Location:** Municipal Offices, Rosebud

Councillors Present (please tick)

☒ Cr Roper ☐ Cr Patton ☒ Cr Marsh ☒ Cr Binyon ☒ Cr Gill ☐ Cr Batty

☒ Cr Ranken ☒ Cr Allen ☒ Cr Pingiaro ☒ Cr Williams ☒ Cr Stephens

The matters listed below were presented at the Councillor Briefing Session

Item No	Item
1	**BN1999 – FY25 Mid-Year Reforecast** Councillors were provided with the detail of the mid-year reforecast process and changes proposed to the Full Year Approved Forecast. The 2025 Financial Year Mid-Year Reforecast will be heard at the 11 March Council Meeting
2	**BN2000 – Future Workplace – Project Overview and Next Steps** Councillors received an update on the progress made thus far on the Future Workplace project. They were presented with the initial findings of the business case and had the opportunity to provide feedback on alternative locations.

The matters listed below were provided as non-verbal updates

Item No	Item
1	**BN2001 - Alcohol Harm Prevention Policy** Councillors received feedback from the public exhibition of the Draft Alcohol Harm Prevention Policy. They were also informed about upcoming changes to licensed premises applications and specifics regarding Application P23/1456.
2	**BN2002 – Community Vision – 2025 Review** Councillors reviewed a briefing paper on the Community Vision Review, which was conducted to fulfil the Council's legislative obligations under the *Local Government Act 2020*. This is before seeking endorsement to place the Community Vision on public exhibition at the 25 February Council Meeting.
3	**BN2003 - Q2 October-December 2024: Community Report** Councillors were provided with the quarterly community report and a community summary prior to presentation at the Community Council Meeting on 25 February 2025.

Conflict of Interest Disclosures (refer overleaf):

Matter No.	Name of Councillor/s who declared a Conflict of Interest	Did they leave the Briefing?	
		YES	NO

Councillor Briefing Sessions

MORNINGTON PENINSULA Shire

		☐	☐

Responsible Officer completing this form:

Name: Tegan Lewis **Signature:** **Position:** Senior Council Reports Officer

2019 Council Decision Register

Printed on 03-March-2025

In Progress
No Action Yet
Completed
No Further Action

Count of Status	Column Labels							
Row Labels	Number of Decisions COMPLETED	Number of Decisions IN PROGRESS	Number of No Further Action Required	Number of 2019 Council Decisions	Percentage of Decisions In Progress	Percentage of No Further Action Required	Percentage of Decisions No Update	Percentage of Decisions COMPLETED
Chief Executive Officer	2		6	**8**	0%	75%	0%	25%
Finance	15		4	**19**	0%	21%	0%	79%
Governance	28		6	**34**	0%	18%	0%	82%
Infrastructure Project Delivery	2			**2**	0%	0%	0%	100%
Infrastructure Strategy & Climate Change	30		2	**32**	0%	6%	0%	94%
Environment Protection	8			**8**	0%	0%	0%	100%
Aged & Disability	3			**3**	0%	0%	0%	100%
Communications, Media & Events	3			**3**	0%	0%	0%	100%
Planning Services	9			**9**	0%	0%	0%	100%
Family Services & Community Planning	15		2	**17**	0%	12%	0%	88%
Project Delivery	8			**8**	0%	0%	0%	100%
Infrastructure Services	17		1	**18**	0%	6%	0%	94%
Property & Strategy	28		2	**30**	0%	7%	0%	93%
Innovation & Advocacy	9			**9**	0%	0%	0%	100%
Arts & Culture	3			**3**	0%	0%	0%	100%
Planning & Building	1			**1**	0%	0%	0%	100%
Infrastructre Strategy	1			**1**	0%	0%	0%	100%
Libraries	1			**1**	0%	0%	0%	100%
Buildings & Facilities	1			**1**	0%	0%	0%	100%
Planning	1			**1**	0%	0%	100%	100%
Planning & Infrastructure		1		**1**	100%	0%	200%	0%
Number of 2019 Council Decisions	**185**	**1**	**23**	**209**				

Department	Number of 2019 Council Decisions	Number of Decisions COMPLETED	Number of Decisions IN PROGRESS	Number of Decisions NO UPDATE	Percentage of Decisions No Update		Percentage of Decisions COMPLETED
Planning Services	**60**	60	0	0	0%		100%

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Community Strengthening 37 0 0
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Assets & Infrastructure
Chief Executive Office
Climate Change & Sustain... 16
Community Activation
Community Partnerships 13
Community Safety & Com... 2
Community Safety, Health ... 6
Community Services 13
Community Strengthening
Corporate Strategy & Busi... 3
Customer & Transformation 5
Destination, Recreation & ...
Development Services 16
Finance 13
Financial Services 2
Governance & Risk 40
Information Technology 2
Infrastructure Projects 9
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Programs & Project Mana... 4 2 5
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Community Safety, Health ... 10
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Assets & Infrastructure 5
Community Partnerships 12
Community Services 3
Community Strengthening 2
Customer & Transformation 9
Economic Development
Finance 19
Information Technology
Infrastructure Projects 13
People & Culture
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Office of the CEO 1 5 1
Community Strengthening 0 2 0
Planning and Environment 0 6 2
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Community Services 1
Programs & Project Mana... 1
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Planning Delegate Report - P24/1010

APPLICATION SUMMARY

Planner	Alex Colquhoun
Date	10/12/2024
Application Number	P24/1010
Address	2153 Frankston-Flinders Road HASTINGS VIC 3915 Lot A SP030399S Vol 10968 Fol 674
Applicant	C/- Prourban Advisory Planning & Management
Planning Scheme	Mornington Peninsula Planning Scheme
Zone & Overlays	IN3Z, DDO59
Public Notice	Yes
Objections	Yes Two (2) objections
Decision	Issue a Notice of Decision to grant a permit

PROPOSAL

Proposal	USE AND DEVELOPMENT OF 68 WAREHOUSES AND 14 STORAGE UNITS, ALTERATION OF ACCESS TO A TRANSPORT ZONE 2, THE DISPLAY OF SIGNS AND A VARIATION TO THE CAR PARKING REQUIREMENTS UNDER CLAUSE 52.06
Decision Documents	The documents assessed were those advertised with the application, including: • Development Plans prepared by E.J Grech and Associates Pty Ltd, dated May 2024, Reference no. 1735. • Planning report prepared by ProUrban Advisory Planning and Management, dated 19 August 2024. • Landscape Plan prepared by E.J Grech and Associates, dated May 2024, Reference no. 1735.

PERMIT TRIGGERS

A PERMIT IS REQUIRED UNDER THE FOLLOWING CLAUSE OF THE PLANNING SCHEME:		**REVIEWABLE/NOT REVIEWABLE**
PLANNING SCHEME CLAUSE	**MATTER FOR WHICH A PERMIT IS REQUIRED**	
Clause 33.03-1 (IN3Z)	A planning permit is required for a section 2 use (Warehouse).	Reviewable

Clause 33.03-4 (IN3Z)	A permit is required to construct a building or construct or carry out works.	Reviewable
Clause 43.02-2 (DDO59)	A permit is required to construct a building or construct or carry out works.	Reviewable
Clause 52.05-12 (Signs)	A permit is required to construct or put up for display a sign in Section 2.	Reviewable
Clause 52.06 (Car parking)	A permit is required to reduce (including reduce to zero) the number of car parking spaces required under Clause 52.06-5 or in a schedule to the Parking Overlay.	Reviewable
Clause 52.29 (Land adjacent to the principal road network)	A permit is required to create or alter access to a road in a Transport Zone 2.	Non-Reviewable

	Clause	Trigger?	Rationale
Zone			
IN3Z	33.03-1	Yes	***Use:*** Section 2 Use as the land is less than 30 metres from a General Residential Zone.
	33.03-4	Yes	***Buildings and/or works:*** A planning permit is required to construct a building or construct or carry out works
Overlays			
DDO59	43.02-2	Yes	***Buildings and/or works:*** A planning permit is required to construct a building or construct or carry out works
Particular Provisions			
Signage	52.05	Yes	A planning permit is required to provide business identification signage which exceeds 8sqm.
Carparking	52.06	Yes	A planning permit is required to reduce the number of car parking spaces required under Table 1.
Land Adjacent to a road in a Transport Zone	52.29	Yes	A planning permit is required to create or alter access to a road in a Transport Zone 2.

SUBJECT SITE

Site Conditions	
Lot:	Site area: 12,807sqm.
Existing conditions:	The site is currently vacant.
Topography:	The subject site is relatively flat.
Vegetation:	No vegetation exists on the subject site.

Vehicle access:	Existing vehicle access way along Frankston-Flinders Road service Road.
Street trees:	No impacts on existing vegetation within the street reserves
Impacts on adjoining land vegetation:	None
Surrounding Land	
Abutting zone(s) / overlays(s)	TRZ2 (west), TRZ1 (east)
North:	**2147 & 2/2147 Frankston Dandenong Road** • Existing warehouses and driveway area. **2145 Frankston Dandenong Road** • Existing warehouse and land abuts a vacant area of the land and vegetation.
South:	**76 Reid Street** - Multiple warehouses - Constructed along the common boundary.
East:	**TRZ1 –** Stony Point Railway Line
West:	**2159 Frankston Dandenong Road** • Existing warehouse Frankston Dandenong Road service road.
Site Context	
Cultural Heritage Management Plan (CHMP)	A CHMP is required and has been provided by the applicant.
Bushfire Prone Area:	Yes
Flood Prone Areas:	No
Restrictions and/or easements on title:	No restrictions on the title. Two easements located in a north-south orientation.
Permit/Site history	
	Council's records indicate that there are no recent planning decisions/applications made relevant to the assessment of this application.

Aerial Photo showing subject site and objector sites - GIS August 2025

Subject Land: ☆ Objectors: ★ N

PUBLIC NOTIFICATION

The application was advertised by sending direct notice to adjoining properties and erecting a sign on site for 14 days.

Two (2) objections have been received to date. A summary of the objections and Council's response is detailed below.

Section 52 Notifications

Person/body notified	Response	Officer Response
VicTrack	No objections, subject to conditions.	Adopted in full
Viva Energy	No objections, no conditions	Adopted in full

REFERRALS

Referral	Type	Response	Officer Response
Development Engineering	Internal	No objections, subject to conditions.	Adopted in part
Traffic	Internal	No objections, no conditions	Adopted in full
DoT	Section 55: Determining	No objections, no conditions	Adopted in full

Development Engineering

Council's Development Engineering department has recommended that Small Rigid Vehicles and cars should be able to manoeuvre without any corrective movements. However, this not consistent with numerous Tribunal cases and the Australian Standards which allow one corrective manoeuvre. A condition will be included to this effect.

ASSESSMENT

The relevant provisions of the Mornington Peninsula Planning Scheme listed in Appendix 1.

Zone

Industrial Use Zone category 3 (IN3Z)

Land use
The proposed use of land warehouse and storage facilities is considered acceptable for the following reasons:

- The proposed use is one that is encouraged within an established industrial area.
- The proposed use is consistent with adjoining uses.
- The proposed use will have minimal effect on nearby existing residential areas, by virtue of the separation distance (approx. 30m over the train tracks).
- Comments and directions of relevant authorities and internal experts have been considered and adopted.
- The drainage of the land has been addressed within the site whilst also having availability of and connection to services (the requirements of Clause 53.18 are met).

Buildings and Works
A planning permit is required to construct a building or construct or carry out works. The development is assessed against the decision guidelines within Clause 33.03-4.

The proposed construction of 68 warehouses and 14 storage units on the site with a similar site arrangement as adjoining properties is consistent with the purpose of the zone. The proposed buildings and works are modern in form with site layout consistent with adjoining developments. The proposal responds appropriately to the decision guidelines of the Zone as:

- The development provides a suitable setback from the street frontage with area available for parking and landscaping. The setback provided is generally in accordance with the provisions of this policy and are consistent with the surrounding development pattern.
- The development along the rear boundary of the site is acceptable as it adjoins a rail track and is separated from the residential properties by that track and a distance of approx. 30m.
- The proposal includes the provision of a modern industrial built form with the use of concrete panels for walls glazed windows and good architectural features. This offers a design complementary of the surrounds allowing for suitable integration.
- The carparking and loading arrangement provides for good access that will adequately service the proposed warehouse uses.
- The design has incorporated boundary construction adjacent to existing warehouses constructed along the common boundaries.
- The proposal has provided internal waste storage areas.

Overlays

Design and Development Overlay Schedule 59 (DDO59)

Planning Scheme Amendment C271morn was gazetted on 9 January 2025, which makes changes to planning controls affecting coastal and inland areas around Western Port Bay and the coastline bordering Bass Strait. The changes are based on recommendations from Council's adopted *Western Port Coastal Villages & Surrounding Settlements Strategy (2019)*.

The amendment introduced new Schedule 59 to the Design and Development Overlay (DDO59) and applies it to the industrial areas of Hastings, Tyabb and Balnarring. The subject land is located in the Hastings area.

Buildings and Works
A planning permit is required under DDO59 to construct a building or carry out works. The application must address a set of requirements to the satisfaction of the Responsible Authority. These requirements generally relate to siting, setbacks and sensitive interfaces, height, form and layout, building materials, design and details, vegetation and landscaping, parking, access and circulation, and fencing.

It is also relevant to consider the design objectives of the schedule which include:

- *To ensure new development retains a consistent streetscape pattern and spacious vegetated*
- *appearance that respects the existing character.*
- *To protect the amenity of surrounding residential land and open space.*
- *To ensure new development provides a consistent, attractive and functional appearance.*
- *To ensure new development positively responds to the predominant building materials and*
- *styles of the precinct.*

The proposed development generally complies with the requirements of DDO59, particularly through the following design responses:

- Providing landscape buffers within side and rear setbacks to address sensitive interfaces.
- Transitioning building heights, with a lower 7.5-metre frontage that gradually increases to 14.15 metres at the rear.
- Ensuring building heights respond to the scale of existing developments by incorporating lower elements at the street frontage to relate to the pedestrian scale.
- Enhancing passive surveillance by incorporating windows and entrances that address the street frontage and car parking areas.
- Maximising window glazing on the façade facing the front street to improve visual engagement.
- Utilising low-reflectivity external finishes to minimise glare and reflections, while avoiding blank walls by incorporating windows and architectural elements to differentiate ground and first floors.
- Sealing all car spaces and incorporating a single crossover to allow vehicles to enter and exit the site in a forward direction.
- Avoiding large expanses of car parking by incorporating landscaped areas between car spaces and the front property boundary.
- Maintaining an open frontage by not proposing front fencing and instead using high woven wire mesh fencing to integrate with the existing industrial character.

Although the proposed development satisfies many requirements under DDO59, it includes some variations. However, these variations are considered appropriate as the proposal adequately responds to the design objectives and decision guidelines of DDO59.

- While the building height exceeds the 9-metre limit specified under the overlay, the majority of the development complies at 7.5 metres, with only the rear north-east quadrant reaching 14.15 metres. The design appropriately locates the taller built form away from the streetscape, in a less visible area adjacent to the Stony Point Train Line.
- The overlay specifies that building coverage should not exceed 50 per cent; however, the proposed development covers approximately 57 per cent of the site. This 7 per cent exceedance is reasonable when considering the surrounding context. While industrial lots on the western side of Frankston-Flinders Road tend to have lower building coverage due to their larger size, those on the eastern side—such as developments at 2135 Frankston-Flinders Road and 76 Reid Parade—are characterised by higher building coverage and smaller warehouse-style units, similar to the proposal.
- Under DDO59, new buildings should have a minimum 17-metre front setback and a 3-metre side setback on one boundary. The proposal provides a 15.4-metre front setback, which is a minor variation. However, this setback aligns with adjoining properties at 2147 and 2159 Frankston-Flinders Road, which have front setbacks of approximately 9 and 11 metres, respectively. This achieves a balanced outcome that considers the existing streetscape while also respecting the intent of the overlay.
- Although the proposal does not maintain a consistent 3-metre side setback, it is unreasonable to expect this due to the site's irregular shape. Instead, the design incorporates breaks along the boundaries—particularly the western and rear (eastern) boundaries—resulting in a better built form outcome than if the requirement were strictly enforced.

Particular Provisions

Clause 52.06 – Car Parking

Pursuant to Clause 52.06-5 (Number of Car Parking Spaces) of the Scheme, a warehouse requires two (2) spaces per premises plus 1.5 spaces to each 100 square metres of leasable floor area. The proposal includes a net floor area of 8,885 square metres. Storage requires a total of 10% of the site area to be provided for car parking with the total site area set aside for storage units of 1,111sqm.

The proposed development includes a total of 137 car parking spaces on site for the warehouse uses and 118sqm (4 car parking spaces) for the storage units. Therefore, the warehouse component consists of a total shortfall of ninety-two (92) car parking spaces.

The Traffic and Transport Report Assessment prepared by Impact Traffic Engineering Pty Ltd, dated 23 May 2024, confirms that case studies of similar uses in similar locations indicates a peak demand range from 0.99-1.23 spaces per 100 sqm. The report highlights that the proposal for 132 spaces to service the warehouse tenancies (8,885 sqm GFA across 68 tenancies) is therefore provided at a rate of 1.49 spaces per 100 sqm and the provision exceeds the case studies. Councils' traffic department have considered the traffic report and have raised no concern.

Council's engineering department have also provided support subject to conditions in relation to swept path diagrams and turning circles of Small Rigid Vehicle (SRV) to demonstrate that the vehicles can enter and exit warehouse 80 and 34 to 57.

The proposed development is measured against the car parking requirements of Clause 52.06. The layout of the land as proposed provides adequate vehicle loading and unloading facilities.

In addition to the above assessment, the proposed development is generally consistent with the relevant requirements and decision guidelines of the IN3Z:

- The construction details of all drainage works, driveways and vehicle parking and loading areas are required as part of the adopted engineering conditions in any permit issued.
- A condition in any permit issued for the maintenance of all approved buildings works will be included, in accordance with the requirements of Clause 33.03-4 (buildings and works).

Clause 52.05 - Signage

Pursuant to Clause 52.05-12, a permit is required to provide business identification signage which exceeds 8sqm on the premises.

A pylon sign is proposed within the front setback with a total advertising area of 10 sqm. It is considered that the proposed signage responds to the decision guidelines outlined under Clause 52.05-8 as highlighted below:

- The signage is located within an Industrial 3 Zone and pylon signs are evident in the surrounding area.
- The proposed sign is well-separated from sensitive uses.
- The proposed sign will provide a sense of address for tenants, visitors and delivery drivers.
- The views and vistas along Frankston-Flinders Road will not be affected as a result of the proposed signage.
- The sign will be positioned within the front setback and landscaped area.
- There will be no impacts on sightlines from the proposed signage.
- The proposed sign will not create any visual clutter.

It is acknowledged that each warehouse includes an area where signage may be displayed; however, this application does not seek approval for this signage. Once the warehouses are subdivided, this signage area may be less than 8 square metres and therefore exempt from a planning permit under Clause 52.05. As such, it is not considered as part of this assessment.

Planning Policy Framework

The proposal responds to the objectives, purposes, and strategies of the Planning Policy Framework.

The objectives of Clause 17.03-1 Industrial Land Supply seek to ensure the availability of land for industry. This includes the strategy to ensure the protection of industrial activity from the encroachment of unplanned commercial or other sensitive uses that would adversely affect industry viability. Further the State strategic direction includes the encouragement of the establishment and retention of activity centres that provide for a mixture of commercial uses.

The proposed development provides for the establishment of warehouses and storage units within an industrial zone with the site layout and proposed building form subject to conditions consistent with the surrounding development and will not result in any detriment to surrounding areas as such is considered consistent with the State Planning Policy Framework.

Clause 15.01-2L Building design – Mornington Peninsula applies to land in an Industrial Zone. Strategies include:

- Support the provision of landscaping, using native vegetation of local origin where appropriate, that contributes positively to the appearance of industrial development and provides screening of industrial activity.
- Support building design that is orientated towards adjoining roads and public spaces by:
  - Avoiding blank building façades and incorporating windows and other design elements.
  - Locating office components at the front of the building.
  - Incorporating façades that address both streets on corner buildings.

The following provides a summary of the proposal against the policy guidelines as relevant:

- *Building setback from a Road:* The proposed development includes a minimum setback of 15.4 metres from Frankston-Flinders Road. The landscaping treatment along the streetscape boundary generally meets the requirements of this policy.
- *Minimum landscaped area*: The proposal includes a landscaping area under 30%, however the landscaping provided is considered acceptable and responds to the landscape character of the surrounding industrial area.
- *Maximum building height*: The proposal includes a maximum building height of 14.15 metres, exceeding the 10-metre limit specified in this policy. However, this exceedance is limited to the rear north-east quadrant of the site. The development at the front, addressing Frankston-Flinders Road, has a height of 7.5 metres, ensuring that larger built form elements are positioned away from areas visible to the public.
- *Building Materials and Elevations*: The proposed external walls will be constructed of suitable materials with painted treatments of a non-reflective nature consistent with this direction.

Clause 15.01-2L-02 – Environmentally sustainable development

- An urban design and built form policy is set out in Clause 15.01-2L-02 which applies to a non-residential building with a gross floor area of more than 300 square metres.
- Meeting the objectives and strategies of the policy requires a Sustainable Management plan as specified under the clause.
- The streetscape includes a mixture of open frontages, chain wire or metal fencing of which is generally transparent. The proposed woven fencing proposed provides transparency which will allow for the proposed landscaping to be viable and visible from the street.
- The subject land and the proposed buildings have availability of and connection to services. The proposed development will not adversely impact the amenity of the land and area including adjoining sites or any nearby industries.
- It is noted that a Sustainability Management Plan (SMP) has been submitted with the application prepared by Melbourne Sustainability Consultants (dated 9th May 2024) in accordance with this policy.

RESPONSE TO SUBMISSIONS

To date, two (2) objections have been received. A summary of the issues and Council's response is detailed in the following table:

Issue	Response

Concerns with visual bulk on private open space areas	The proposed design of the warehouses including their height and setbacks respond to the zoning of the land and the existing character of warehouses in this industrial zone area. The separation distance of approx. 30m to the residential properties to the east (across a train line) is sufficient to ensure there are no unacceptable amenity impacts by virtue of the built form.
Noise concerns from the uses.	Objectors are concerned that train noise from the Stony Point Rail Line will significantly increase due to the development, as a result of the sound of the train 'bouncing off' or 'reverberating' off the walls of the proposed warehouses. This is an uncommon issue to raise as an objection to a planning application, and is difficult to unpick due to the source of the perceived amenity impact not being the proposed use and development itself. Having taken verbal advice from Council's Environmental Health team, Officers are satisfied that it is not appropriate or reasonable to address this issue by way of refusal of the application or conditions on a permit, as: • The source of the noise is not the proposed use and development itself; • No evidence has been provided that there will in fact be any exacerbation of the existing noise impact due to the train, and it would be extremely difficult to even attempt to quantify this perceived impact; • The distance between the proposed development and the residential properties affected is substantial, and in fact is verging on the 30m threshold at which no permit would be required for the proposed use; • The duration and frequency of the impact (i.e. when the train passes by the site) is extremely limited.

Cultural Heritage Management Plan (CHMP)

A CHMP is required as the subject site is identified as being within an area of cultural sensitivity and the proposal is a high impact activity under the *Aboriginal Heritage Regulations 2018*.

The applicant has provided an approved CHMP.

DECISION

That Council having considered all the matters required under Section 60 of the *Planning and Environment Act 1987* decides to issue a Notice of Decision to grant a permit under the provisions of the Mornington Peninsula Planning Scheme in respect of the land known and described as 2153 Frankston-Flinders Road HASTINGS VIC 3915 in accordance with the endorsed plans, subject to the following conditions:

THE PERMIT ALLOWS

PLANNING SCHEME CLAUSE	**MATTER FOR WHICH THE PERMIT HAS BEEN GRANTED**	**REVIEWABLE OR NON-REVIEWLABLE** **MUST BE COMPLETED FOR EACH TRIGGER**
Clause 33.03-1 (IN3Z)	Use of the land for: • Warehouse • Store	Reviewable
Clause 33.03-4 (IN3Z)	A permit is required to construct a building or construct or carry out works.	Reviewable
Clause 43.02-2 (DDO59)	A permit is required to construct a building or construct or carry out works.	Reviewable
Clause 52.05-12 (Signs)	A permit is required to construct or put up for display a sign in Section 2.	Reviewable
Clause 52.06 (Car parking)	A permit is required to reduce (including reduce to zero) the number of car parking spaces required under Clause 52.06-5 or in a schedule to the Parking Overlay.	Reviewable
Clause 52.29 (Land adjacent to the principal road network)	A permit is required to create or alter access to a road in a Transport Zone 2.	Non-Reviewable

CONDITIONS

Amended plans

1. Before the developments starts, amended plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and will then form part of the permit. The plans must be drawn to scale with dimensions. The plans must be generally in accordance with the plans submitted with the application but modified to show:

    a) Swept path diagrams and turning circles of the cars to demonstrate that cars can enter and exit the ground floor car parking spaces under ramp with no more than one corrective manoeuvre.

    b) Swept path diagrams and turning circles of Small Rigid Vehicle (SRV) to demonstrate that SRV can enter and exit warehouse 80 with no more than one corrective manoeuvre.

    c) Swept path diagrams and turning circles of Small Rigid Vehicle to demonstrate that vehicles can enter and exit warehouses 34 - 57 with no more than one corrective manoeuvre.

    d) Swept path diagrams and turning circles of the Small Rigid Vehicles to demonstrate that each Small Rigid Vehicle can pass each other within accessways and vehicle crossing.

    e) Minimum 1 metre separation distance required between power pole and proposed vehicle crossing. Relocation of the power pole is required to the satisfaction of the Responsible Authority if separation distance is less than 1 metre.

    f) Gradients and gradient transitions of the curved ramps for this development in accordance with AS/NZS 2890.1:2004.

Approved development not altered

2. The approved development as shown on the endorsed plans must not be altered without the prior written consent of the Responsible Authority (unless otherwise specified by a condition of this permit, consent is not required for any buildings or works which do not require a planning permit under the Mornington Peninsula Planning Scheme).

Colours and materials

3. The materials and colours of the exterior finish of the development must be in accordance with the endorsed plans unless with the further written consent of the Responsible Authority.

4. Prior to the initial occupation of the development, external finishes must be completed to a professional standard to the satisfaction of the Responsible Authority.

Vehicle Crossings/Accessways

5. Proposed vehicular crossings and accessways must be provided to the standards of the Responsible Authority prior to the initial occupation of the development.

Loading and unloading

6. The loading and unloading of goods from vehicles must only be carried out within the boundaries of the land.

7. All loading bays must be kept unobstructed when not in use.

Amenity

8. Goods and materials associated with the use hereby approved must be stored within buildings.

9. No commercial rubbish bins shall be placed or allowed to remain in permanent view of the public to the satisfaction of the Responsible Authority.

10. The storage of goods or materials within the warehouses approved under this permit must at all times be to the satisfaction of the Responsible Authority. These must not at any time include the storage of any goods or materials listed in the Table to Clause 53.10-1 of the Planning Scheme.

11. Outdoor lighting must be designed, baffled and located to the satisfaction of the Responsible Authority to prevent any adverse effect on adjoining land.

12. The hereby approved use must not adversely affect the amenity of the neighbourhood, including through the:

    - Transport of materials, goods or commodities to or from the land;
    - Appearance of any stored goods or materials;
    - Emission of noise, artificial light, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil.

VicTrack Conditions

13. All disturbed surfaces on the land must be revegetated and stabilised to the satisfaction of the Responsible Authority.

14. No entry to railway land is permitted without the written consent of VicTrack.

15. At all times the common boundary with the railway land must be fenced with a 1.8m paling or black chain mesh fence and must be repaired and maintained, all at no cost to VicTrack to prohibit unauthorised access to the rail corridor.

16. Any replacement, repair or reconstruction of any fence on the boundary to railway land must be in accordance with VicTrack's requirements.

17. No drainage, effluent, waste, soil or other materials must enter, be stored or be directed to the railway land.

18. Red, green or yellow colour schemes or shapes capable of being mistaken for train signals must not be used on elevations facing railway land.

19. The development's landscaping and planting must be setback to ensure tree canopy does not extend over railway land.

Landscaping

20. Prior to the occupation of the development (or other time agreed to in writing by the Responsible Authority) the landscaping works shown on the endorsed plans must be carried out and completed to the satisfaction of the Responsible Authority. The landscaping must be maintained to the satisfaction of the Responsible Authority, including that any dead, diseased or damaged plants are to be replaced as soon as practicable.

Tree protection

21. Prior to the commencement of any demolition, building or works, appropriate tree protection fencing, must be erected to the greatest extent practicable, around the Tree Protection Zones (TPZ) of the retained trees on the subject site, adjoining land and road reserve. The tree protection fencing must be installed in accordance with the requirements of Australian Standard AS4970 – 2009 Protection of trees on development sites. The tree protection fencing must remain in place until the completion of any works hereby approved. Within the TPZ the following activities are prohibited unless shown on the endorsed plans or approved in writing by the Responsible Authority:
    - excavation, trenching, placement of fill or soil level changes
    - storage or cleaning of tools or equipment
    - preparation of chemicals including preparation of cement products
    - parking, refuelling pr cleaning of vehicles or plant
    - dumping of waste
    - temporary or permanent installation of utilities or signs

22. All excavation within the Tree Protection Zones (TPZ) of retained trees on the subject site and adjoining land must be undertaken using a method which is non-destructive to tree roots in compliance with Australian Standard AS 4970-2009 Protection of trees on development sites. Any tree roots which require pruning must be cut with a clean sharp cutting implement with a final cut to undamaged wood at an angle which minimises the size of the wound. No tree roots over 40mm in diameter are to be cut unless under the direct supervision of a Level 5 qualified Arborist. No tree roots critical to maintaining tree health, structure or viability are to be cut. These tree roots must be retained undamaged and alternative design and construction methods used.

23. Any pruning of trees must be undertaken to the minimum extent necessary in compliance with the procedures and practices described in Australian Standard AS 4373-2007 - Pruning of amenity trees.

24. The owner and occupier of the site must ensure that, prior to the commencement of buildings and works, all contractors and tradespersons operating on the site are advised of the status of trees to be retained and are advised of any obligations in relation to the protection of those trees.

25. No trenching or soil excavation is to occur within the Tree Protection Zones of retained trees during development unless shown on the endorsed plans, without the prior written consent of the Responsible Authority.

Engineering Plans

26. After the endorsement of Condition 1 plans and before any works associated with the development starts, a signed and completed 'Checklist for Development Engineering Plan Approval' along with engineering plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. The plans must be drawn to scale with dimensions and shall be emailed to devengadmin@mornpen.vic.gov.au in pdf format.

    The plans must show:

    a. All areas of the development being drained by means of an underground drainage system to retain a post-development 1% Annual Exceedance Probability storm event for the critical storm duration. Discharge from the site must be limited to an equivalent pre-development flow based on a 0.5 Exceedances per Year storm event for the critical storm duration and be connected to the existing underground Council drainage system within property via a minimum 225 m diameter drainage pipe and pits.

    AND / OR

    All areas of the development which is unable to drain by gravity being drained by means of an underground drainage system to retain a post-development 1% Annual Exceedance Probability storm event for the critical storm duration on the property and discharged via a pumping system to limit the discharge to an equivalent pre-developed flow based on

a 0.5 Exceedances per Year storm event for the critical storm. Discharge from the pumping system is to be directed to the existing underground Council drainage system within property via gravity. The pumping system shall be designed and installed in accordance with AS/NZS 3500.3, Section 8 Pumped Systems.

b. All surface areas of private open spaces being drained by a minimum 150 mm diameter drainage pipe connected to the storm water system.

c. A drainage system on the site being designed to ensure storm water runoff exiting the site meets the current best practice performance objectives for stormwater quality, as contained in the Urban Stormwater Best Practice Environmental Management Guidelines (Victorian Stormwater Committee, 1999).

d. A drainage surcharge route within the development to avoid inundation of any buildings.

e. Details, including levels and gradient, of the common driveways within the site.

f. Details, including levels, gradient and gradient transitions, of the ramp within the site.

g. The design of all vehicle movements entering and exiting the property being in a forward direction.

h. Reinforced concrete vehicular crossing to Council standards, with any redundant crossing or vehicle laybacks being removed and replaced with kerb and channel, including reinstatement of the nature strip fronting the site.

i. Sight distance for vehicles and pedestrians not being unduly restricted at the exit from site by fencing or landscaping works.

j. Tree Protection Zones (TPZs) impacted by the works, or as shown on any other development plans and documents.

k. Drainage works designed to avoid TPZs where possible.

l. Proposed methodologies for complying with AS4970-2009 (Protection of trees on development sites) for any works that are required within TPZs.

27. Before the approval of engineering plans, drainage computations and documentation are required for:

a. The proposed drainage system.

b. The consideration of any drainage catchment external to the development that may drain to the proposed drainage system.

c. A STORM or MUSIC Report, if applicable.

28. Prior to the approval of engineering plans, the applicant must:

    a. Demonstrate to the Responsible Authority that water quality features will be implemented in accordance with clause 53.18 of the planning scheme.

    and/or

    b. Subject to the approval of the Responsible Authority, pay Mornington Peninsula Shire the monetary contribution calculated in accordance with the Shire's In-Lieu Stormwater Treatment Developer Contribution Scheme.

29. Prior to the commencement of any works and after approval of engineering plans, a project-specific Major Construction Management Plan (CMP) must be endorsed by the Responsible Authority. This CMP is to be based on the standard Major CMP template found on the Mornington Peninsula Shire's website. When approved, the CMP will be endorsed and form part of the Planning Permit. The endorsed CMP must be implemented to the satisfaction of the Responsible Authority prior to, and during the works.

30. Prior to the commencement of works for this development a project specific Traffic Management Plan (TMP) must be submitted to Council for approval. The TMP must then be implemented to the satisfaction of the Responsible Authority prior to and during construction of the subdivision works.

31. Before internal drainage works commence, all external drainage works must be completed in accordance with approved engineering plans, and to the satisfaction of the Responsible Authority.

32. Before the initial occupation of the development all drainage works associated with the development must be constructed in accordance with approved engineering plans, and to the satisfaction of the Responsible Authority.

33. The owner must operate and maintain the drainage works including the on-site storm water detention and treatment system at their cost and must allow the system to be inspected by an authorised officer of the Responsible Authority from time to time. The owner must not modify the on-site storm water detention and treatment system without prior written approval from the Responsible Authority.

34. Before the initial occupation of the development, vehicle crossings, areas set aside for the parking of vehicles and driveways as shown on the endorsed plans must be constructed in accordance with approved engineering plans, surfaced with reinforced concrete and drained to the satisfaction of the Responsible Authority. Car spaces and driveways must be kept available for these purposes at all times.

35. If pump system adopted, prior to the commencement of any works the owner of the land must enter into an agreement with the Responsible Authority, pursuant to Section 173 of the Planning and Environment Act 1987. This agreement must be registered by the Responsible Authority pursuant to Section 181 of the Planning and Environment Act 1987 on the title of the subject land prior to the commencement of any works.

    This agreement must provide for:

    a. A pumping system for the capture and discharge of storm water from the site being designed and installed in accordance with approved plans and AS/NZS 3500.3, Section 8 Pumped Systems prior to the initial occupancy of any new/either dwelling.

    b. A pumping system being maintained and operating to discharge all storm water from the site to the existing underground Council drainage system within Property.

    The agreement is to remain extant for the life of the development at this property.

    The agreement must be executed prior to the commencement of any works for the development and all costs relating to the preparation of the agreement are to be borne by the Applicant.

36. Outdoor lighting must be designed, baffled and located to the satisfaction of the Responsible Authority to prevent any adverse effect on adjoining land.

Expiry

37. This permit will expire if one of the following applies:

    a) The development is not completed within four years of the date of this permit.

    b) The use has not commenced within four years of the date of this permit.

In accordance with Section 69 of the *Planning and Environment Act 1987*, an application may be submitted to the Responsible Authority for an extension of the periods referred to in this condition.

Notes

The permitted development must be undertaken in accordance with Cultural Heritage Management Plan, CHMP Number: 12224 approved under the *Aboriginal Heritage Act 2006* on 20 September 2012.

CONFLICT OF INTEREST DECLARATION

I have considered my professional duties and personal interests and declare that to the best of my knowledge no actual, potential or perceived conflict risk of exists in the assessment of this application.

Alex Colquhoun **Senior Planner**	**Annam Iqbal (Senior Planner)** **On behalf of Sally Shearer Team Leader**
Delegate Approved:	18/02/2025

Appendix 1 – Planning Scheme Provisions

Municipal Planning Strategy
Clause 02 Municipal Planning Strategy
Clause 02.02 Vision
Clause 02.03-1 Settlement
Clause 02.03-3 Environmental risks and amenity
Clause 02.03-5 Built environment and heritage
Clause 02.03-7 Transport
Clause 02.03-8 Infrastructure
Planning Policy Framework (PPF)
Clause 11.01-1S Settlement
Clause 11.01-1R Settlement – Metropolitan Melbourne
Clause 11.01-1L-01 Settlement – Mornington Peninsula
Clause 11.03-5S Distinctive areas and landscapes *Mornington Peninsula Localised Planning Statement (Victorian Government, 2014)*
Clause 11.03-6S Regional and local policies
Clause 12.01-2S Native vegetation management
Clause 15.01-1S Urban design
Clause 15.01-1R Urban design – Metropolitan Melbourne
Clause 15.01-1L Urban design – Mornington Peninsula
Clause 15.01-2S Building design
Clause 15.01-2L Building design – Mornington Peninsula
Clause 15.01-5S Neighbourhood Character
Clause 15.02-1S Energy and resource efficiency
Clause 17.03 Industry
Clause 19.03-3S Integrated water management
Clause 19.03-3S integrated water management – Mornington Peninsula
Clause 19.03-5S Waste and resource recovery
Zone
Industrial Zone 3 (IN3Z)
Overlays
Particular Provisions
Clause 52.06 Car parking
Clause 52.29 Land adjacent to the principal road network
Clause 53.18 Stormwater management in urban development
General Provisions
Clause 65 Decision Guidelines

Category	Requirement
Management	- 80% of all construction and demolition waste to be diverted from landfill - Separate utility meter for each tenancy
Water Efficiency	- Minimum WELS rating of fittings and fixtures: 4 Star Toilets / 6 Star Taps / 4 Star (6.0-7.5 L/min) Showerhead - No irrigation is required after an initial period of establishment for landscaped areas
Energy Efficiency	- NCC 2022 section J commitment to meet requirement with 10% increase on minimum floor and ceiling insulation - Illumination power densities to meet NCC 2022 section JTD3 requirements - Sensors (motion, daylight, timers) for external and common area lighting - Electric hot water System chosen within one star of the best available product in the range at the time of purchase or 15% most efficient available products if no star rating is available - HVAC system chosen within one star of the best available product in the range at the time of purchase or 15% most efficient available products if no star rating is available - 4kW Solar PV on development
Stormwater	- The entire site area runoff diverted to Ocean Protect's Cascade Separator - The outflows from the Cascade Separator will be channelled to an Ocean Protect's Jellyfish
IEQ	- 10% of roof area of warehouse to be translucent roof sheet with minimum 50% VLT - Mechanical ventilation to provide fresh air rates 50% higher than minimum from AS1668 or to maintain CO2 level below 800ppm All paint, adhesives, sealants and flooring to be low VOC – refer to Appendix 2 for limits - All engineered wood will be low formaldehyde with E0 or better certification
Transport	- One bike space per unit with office for staff and visitors - EV charging infrastructure provision (Level 2 – 32A 7Kw)
Waste	- 2-bin system (Rubbish, Recycling)
Urban Ecology	- The proposed development will be proposed with landscaped areas. This will provide an enjoyable working environment.
Materials	- Timber framing if used to be certified PEFC, AFS or FSC – No rainforest timber to be used - Steel to be sourced from steel maker with ISO 14001 facility a member of the World Steel Association's (WSA) Climate Action Program (CAP). - Carpet and underlay with third-party sustainable certification (GECA, Carpet institute ECS etc.)

PROPOSED GROUND FLOOR & SITE PLAN

SCALE : 1:200 @ A0

E.J. Grech & Associates Pty Ltd
23 Railway Road Blackburn 3130
Ph - 9878 3500 Fax- 9894 4425
www.ejgrech.com.au

DATE:	AMENDMENT:

PROJECT:
PROPOSED WAREHOUSE/ STORAGE DEVELOPMENT
AT: No. 2153 FRANKSTON-FLINDERS RD. HASTINGS
FOR : SPECTRE PROPERTY

MELWAY REF:	MAP		
DATE:	MAY 2024	SCALE:	1:200@A0
SHEET:	1 OF 7	REFERENCE NO:	1735
DRAWN:	M.F.		

LEGEND	
———	TITLE BOUNDARY
EASEMENT	EASEMENT BOUNDARY
———	TOP OF BANK
~~	CHANGE OF GRADE/SWALE
———	1m CONTOUR
———	0.2m CONTOUR
——S———	SEWER MAIN IN VICINITY
——E———	OVERHEAD ELECTRICITY IN VICINITY
—UEC——	UNDERGROUND ELECTRICITY IN VICINITY
——T———	UNDERGROUND TELECOM IN VICINITY
——W———	WATER MAIN IN VICINITY
---o-----o---	OPEN DRAIN
A.C.	ASBESTOS CEMENT
EPIT	ELECTRICITY PIT
EPOLE	ELECTRICITY POLE
I.S.	SEWER INSPECTION SHAFT
I.L.	INVERT LEVEL
J.P.	JUNCTION PIT
R.C.P.	REINFORCED CONCRETE PIPE
S.E.P	SIDE ENTRY PIT
S.V.	STOP VALVE WATER
T.B.M.	TEMPORARY BENCH MARK
TPIT	TELECOMMUNICATIONS PIT
EXISTING SURFACE LEVELS SHOWN THUS	11.88

GROSS AREAS :

NOTE: AREAS ARE BASED ON THE PROPERTY COUNCIL OF AUSTRALIA METHOD OF MEASUREMENT MARCH 1997 (GLA).

WAREHOUSE 1 GROUND FLOOR 138.40sqm MEZZANINE OFFICE 42.20sqm	WAREHOUSE 2 GROUND FLOOR 137.00sqm MEZZANINE OFFICE 42.00sqm	WAREHOUSE 3 GROUND FLOOR 137.80sqm MEZZANINE OFFICE 42.20sqm	WAREHOUSE 4 GROUND FLOOR 138.60sqm MEZZANINE OFFICE 42.20sqm	WAREHOUSE 5 GROUND FLOOR 138.60sqm MEZZANINE OFFICE 42.00sqm
WAREHOUSE 6 GROUND FLOOR 138.60sqm MEZZANINE OFFICE 42.00sqm	WAREHOUSE 7 GROUND FLOOR 138.60sqm MEZZANINE OFFICE 42.00sqm	WAREHOUSE 8 GROUND FLOOR 138.60sqm MEZZANINE OFFICE 42.00sqm	WAREHOUSE 9 GROUND FLOOR 138.60sqm MEZZANINE OFFICE 42.00sqm	WAREHOUSE 10 GROUND FLOOR 138.60sqm MEZZANINE OFFICE 42.00sqm
WAREHOUSE 11 GROUND FLOOR 77.00sqm MEZZANINE OFFICE 18.00sqm	WAREHOUSE 12 GROUND FLOOR 73.10sqm MEZZANINE OFFICE 14.10sqm	WAREHOUSE 13 GROUND FLOOR 76.75sqm MEZZANINE OFFICE 17.75sqm	WAREHOUSE 14 GROUND FLOOR 90.80sqm MEZZANINE OFFICE 31.80sqm	WAREHOUSE 15 GROUND FLOOR 83.00sqm MEZZANINE OFFICE 23.00sqm
WAREHOUSE 16 GROUND FLOOR 83.00sqm MEZZANINE OFFICE 43.00sqm	WAREHOUSE 17 GROUND FLOOR 83.00sqm MEZZANINE OFFICE 43.00sqm	WAREHOUSE 18 GROUND FLOOR 83.00sqm MEZZANINE OFFICE 43.00sqm	WAREHOUSE 19 GROUND FLOOR 83.00sqm MEZZANINE OFFICE 43.00sqm	WAREHOUSE 20 GROUND FLOOR 83.00sqm MEZZANINE OFFICE 43.00sqm
WAREHOUSE 21 GROUND FLOOR 140.10sqm MEZZANINE OFFICE 43.00sqm	WAREHOUSE 22 GROUND FLOOR 139.20sqm MEZZANINE OFFICE 43.00sqm	WAREHOUSE 23 GROUND FLOOR 90.00sqm MEZZANINE OFFICE 43.00sqm	WAREHOUSE 24 GROUND FLOOR 89.00sqm MEZZANINE OFFICE 43.00sqm	WAREHOUSE 25 GROUND FLOOR 87.00sqm MEZZANINE OFFICE 43.00sqm
WAREHOUSE 26 GROUND FLOOR 111.00sqm MEZZANINE OFFICE 37.00sqm	WAREHOUSE 27 GROUND FLOOR 108.10sqm MEZZANINE OFFICE 36.00sqm	WAREHOUSE 28 GROUND FLOOR 108.20sqm MEZZANINE OFFICE 36.00sqm	WAREHOUSE 29 GROUND FLOOR 104.00sqm MEZZANINE OFFICE 35.00sqm	WAREHOUSE 30 GROUND FLOOR 99.00sqm MEZZANINE OFFICE 33.00sqm
WAREHOUSE 31 GROUND FLOOR 83.00sqm MEZZANINE OFFICE 38.60sqm	WAREHOUSE 32 GROUND FLOOR 77.00sqm MEZZANINE OFFICE 38.00sqm	WAREHOUSE 33 GROUND FLOOR 79.60sqm MEZZANINE OFFICE 39.40sqm	WAREHOUSE 34 GROUND FLOOR 58.40sqm	WAREHOUSE 35 GROUND FLOOR 54.40sqm
WAREHOUSE 36 GROUND FLOOR 54.40sqm	WAREHOUSE 37 GROUND FLOOR 54.40sqm	WAREHOUSE 38 GROUND FLOOR 54.40sqm	WAREHOUSE 39 GROUND FLOOR 54.40sqm	WAREHOUSE 40 GROUND FLOOR 55.00sqm
WAREHOUSE 41 GROUND FLOOR 54.40sqm	WAREHOUSE 42 GROUND FLOOR 87.20sqm	WAREHOUSE 43 GROUND FLOOR 38.20sqm	STORAGE 44 GROUND FLOOR 41.70sqm	STORAGE 45 GROUND FLOOR 89.70sqm
STORAGE 46 GROUND FLOOR 38.20sqm	STORAGE 47 GROUND FLOOR 76.40sqm	STORAGE 48 GROUND FLOOR 38.20sqm	STORAGE 49 GROUND FLOOR 38.20sqm	STORAGE 50 GROUND FLOOR 38.20sqm
STORAGE 51 GROUND FLOOR 76.80sqm	STORAGE 52 GROUND FLOOR 38.10sqm	STORAGE 53 GROUND FLOOR 38.00sqm	STORAGE 54 GROUND FLOOR 38.60sqm	STORAGE 55 GROUND FLOOR 38.60sqm
STORAGE 56 GROUND FLOOR 38.60sqm	STORAGE 57 GROUND FLOOR 42.10sqm	STORAGE 58 GROUND FLOOR 84.60sqm MEZZANINE OFFICE 39.30sqm	STORAGE 59 GROUND FLOOR 83.60sqm MEZZANINE OFFICE 38.90sqm	STORAGE 60 GROUND FLOOR 81.10sqm MEZZANINE OFFICE 37.60sqm
WAREHOUSE 61 GROUND FLOOR 81.10sqm MEZZANINE OFFICE 37.60sqm	WAREHOUSE 62 GROUND FLOOR 81.10sqm MEZZANINE OFFICE 37.60sqm	WAREHOUSE 63 GROUND FLOOR 84.60sqm MEZZANINE OFFICE 39.30sqm	WAREHOUSE 64 GROUND FLOOR 107.20sqm MEZZANINE OFFICE 49.80sqm	WAREHOUSE 65 GROUND FLOOR 108.30sqm MEZZANINE OFFICE 49.80sqm
WAREHOUSE 66 GROUND FLOOR 106.30sqm MEZZANINE OFFICE 49.00sqm	WAREHOUSE 67 GROUND FLOOR 106.30sqm MEZZANINE OFFICE 49.00sqm	WAREHOUSE 68 GROUND FLOOR 106.30sqm MEZZANINE OFFICE 49.00sqm	WAREHOUSE 69 GROUND FLOOR 108.00sqm MEZZANINE OFFICE 49.00sqm	WAREHOUSE 70 GROUND FLOOR 85.00sqm MEZZANINE OFFICE 44.10sqm
WAREHOUSE 71 GROUND FLOOR 83.00sqm MEZZANINE OFFICE 43.10sqm	WAREHOUSE 72 GROUND FLOOR 83.00sqm MEZZANINE OFFICE 44.10sqm	WAREHOUSE 73 GROUND FLOOR 113.60sqm MEZZANINE OFFICE 49.00sqm	WAREHOUSE 74 GROUND FLOOR 102.70sqm MEZZANINE OFFICE 49.00sqm	WAREHOUSE 75 GROUND FLOOR 103.60sqm MEZZANINE OFFICE 49.00sqm
WAREHOUSE 81 GROUND FLOOR 75.60sqm MEZZANINE OFFICE 49.00sqm	WAREHOUSE 82 GROUND FLOOR 77.10sqm MEZZANINE OFFICE 49.00sqm			

NET AREAS :

WAREHOUSE 1 GROUND FLOOR 99.00sqm MEZZANINE OFFICE 33.70sqm	WAREHOUSE 2 GROUND FLOOR 99.20sqm MEZZANINE OFFICE 33.40sqm	WAREHOUSE 3 GROUND FLOOR 99.20sqm MEZZANINE OFFICE 33.40sqm	WAREHOUSE 4 GROUND FLOOR 99.60sqm MEZZANINE OFFICE 33.70sqm	WAREHOUSE 5 GROUND FLOOR 99.60sqm MEZZANINE OFFICE 33.40sqm
WAREHOUSE 6 GROUND FLOOR 99.60sqm MEZZANINE OFFICE 33.40sqm	WAREHOUSE 7 GROUND FLOOR 99.60sqm MEZZANINE OFFICE 33.40sqm	WAREHOUSE 8 GROUND FLOOR 99.60sqm MEZZANINE OFFICE 33.40sqm	WAREHOUSE 9 GROUND FLOOR 99.60sqm MEZZANINE OFFICE 33.40sqm	WAREHOUSE 10 GROUND FLOOR 99.60sqm MEZZANINE OFFICE 31.50sqm
WAREHOUSE 11 GROUND FLOOR 55.00sqm MEZZANINE OFFICE 16.00sqm	WAREHOUSE 12 GROUND FLOOR 52.20sqm MEZZANINE OFFICE 12.20sqm	WAREHOUSE 13 GROUND FLOOR 54.80sqm MEZZANINE OFFICE 15.80sqm	WAREHOUSE 14 GROUND FLOOR 65.00sqm MEZZANINE OFFICE 31.00sqm	WAREHOUSE 15 GROUND FLOOR 59.30sqm MEZZANINE OFFICE 21.00sqm
WAREHOUSE 16 GROUND FLOOR 59.30sqm MEZZANINE OFFICE 35.80sqm	WAREHOUSE 17 GROUND FLOOR 59.30sqm MEZZANINE OFFICE 35.80sqm	WAREHOUSE 18 GROUND FLOOR 59.30sqm MEZZANINE OFFICE 35.80sqm	WAREHOUSE 19 GROUND FLOOR 59.30sqm MEZZANINE OFFICE 35.80sqm	WAREHOUSE 20 GROUND FLOOR 59.30sqm MEZZANINE OFFICE 35.80sqm
WAREHOUSE 21 GROUND FLOOR 100.20sqm MEZZANINE OFFICE 35.80sqm	WAREHOUSE 22 GROUND FLOOR 99.10sqm MEZZANINE OFFICE 35.80sqm	WAREHOUSE 23 GROUND FLOOR 64.30sqm MEZZANINE OFFICE 31.80sqm	WAREHOUSE 24 GROUND FLOOR 63.70sqm MEZZANINE OFFICE 31.80sqm	WAREHOUSE 25 GROUND FLOOR 62.20sqm MEZZANINE OFFICE 31.80sqm
WAREHOUSE 26 GROUND FLOOR 79.30sqm MEZZANINE OFFICE 26.80sqm	WAREHOUSE 27 GROUND FLOOR 77.30sqm MEZZANINE OFFICE 26.80sqm	WAREHOUSE 28 GROUND FLOOR 77.30sqm MEZZANINE OFFICE 26.80sqm	WAREHOUSE 29 GROUND FLOOR 74.30sqm MEZZANINE OFFICE 25.80sqm	WAREHOUSE 30 GROUND FLOOR 70.80sqm MEZZANINE OFFICE 23.80sqm
WAREHOUSE 31 GROUND FLOOR 59.30sqm MEZZANINE OFFICE 27.60sqm	WAREHOUSE 32 GROUND FLOOR 55.00sqm MEZZANINE OFFICE 27.60sqm	WAREHOUSE 33 GROUND FLOOR 56.80sqm MEZZANINE OFFICE 28.10sqm	WAREHOUSE 34 GROUND FLOOR 41.70sqm	WAREHOUSE 35 GROUND FLOOR 38.90sqm
WAREHOUSE 36 GROUND FLOOR 38.90sqm	WAREHOUSE 37 GROUND FLOOR 38.90sqm	WAREHOUSE 38 GROUND FLOOR 38.90sqm	WAREHOUSE 39 GROUND FLOOR 38.90sqm	WAREHOUSE 40 GROUND FLOOR 39.30sqm
WAREHOUSE 41 GROUND FLOOR 38.90sqm	WAREHOUSE 42 GROUND FLOOR 71.80sqm	WAREHOUSE 43 GROUND FLOOR 35.20sqm	STORAGE 44 GROUND FLOOR 37.80sqm	STORAGE 45 GROUND FLOOR 83.40sqm
STORAGE 46 GROUND FLOOR 35.20sqm	STORAGE 47 GROUND FLOOR 71.80sqm	STORAGE 48 GROUND FLOOR 35.20sqm	STORAGE 49 GROUND FLOOR 35.20sqm	STORAGE 50 GROUND FLOOR 35.20sqm
STORAGE 51 GROUND FLOOR 71.60sqm	STORAGE 52 GROUND FLOOR 34.40sqm	STORAGE 53 GROUND FLOOR 34.80sqm	STORAGE 54 GROUND FLOOR 35.60sqm	STORAGE 55 GROUND FLOOR 35.60sqm
STORAGE 56 GROUND FLOOR 35.60sqm	STORAGE 57 GROUND FLOOR 39.20sqm	STORAGE 58 GROUND FLOOR 81.00sqm MEZZANINE OFFICE 35.70sqm	STORAGE 59 GROUND FLOOR 81.00sqm MEZZANINE OFFICE 35.70sqm	STORAGE 60 GROUND FLOOR 78.20sqm MEZZANINE OFFICE 34.50sqm
WAREHOUSE 61 GROUND FLOOR 78.20sqm MEZZANINE OFFICE 34.50sqm	WAREHOUSE 62 GROUND FLOOR 34.40sqm MEZZANINE OFFICE 33.40sqm	WAREHOUSE 63 GROUND FLOOR 81.00sqm MEZZANINE OFFICE 35.70sqm	WAREHOUSE 64 GROUND FLOOR 88.90sqm MEZZANINE OFFICE 33.40sqm	WAREHOUSE 65 GROUND FLOOR 89.00sqm MEZZANINE OFFICE 44.10sqm
WAREHOUSE 66 GROUND FLOOR 89.00sqm MEZZANINE OFFICE 32.40sqm	WAREHOUSE 67 GROUND FLOOR 89.00sqm MEZZANINE OFFICE 33.10sqm	WAREHOUSE 68 GROUND FLOOR 89.00sqm MEZZANINE OFFICE 33.40sqm	WAREHOUSE 69 GROUND FLOOR 89.60sqm MEZZANINE OFFICE 33.40sqm	WAREHOUSE 70 GROUND FLOOR 67.00sqm MEZZANINE OFFICE 35.20sqm
WAREHOUSE 71 GROUND FLOOR 84.00sqm MEZZANINE OFFICE 32.40sqm	WAREHOUSE 72 GROUND FLOOR 67.70sqm MEZZANINE OFFICE 33.10sqm	WAREHOUSE 73 GROUND FLOOR 73.00sqm MEZZANINE OFFICE 31.20sqm	WAREHOUSE 74 GROUND FLOOR 64.70sqm MEZZANINE OFFICE 32.40sqm	WAREHOUSE 75 GROUND FLOOR 64.70sqm MEZZANINE OFFICE 31.40sqm
WAREHOUSE 81 GROUND FLOOR 62.00sqm MEZZANINE OFFICE 31.20sqm	WAREHOUSE 82 GROUND FLOOR 60.00sqm MEZZANINE OFFICE 31.00sqm			

TOTAL AREA:		TOTAL AREA:		SITE AREA	
TOTAL GROSS GROUND FLOOR AREAS	7,206.80sqm	TOTAL NET GROUND FLOOR AREAS	4,907.70sqm	AREA	12,607.00sqm
TOTAL GROSS MEZZANINE/OFFICE AREAS	2,330.00sqm	TOTAL NET MEZZANINE/OFFICE AREAS	1,891.60sqm	PLOT RATIO	74.90%
TOTAL GROSS FLOOR AREAS	9,567.40sqm	TOTAL NET FLOOR AREAS	6,799.30sqm	LANDSCAPED AREA	886.30sqm
LESS WALLS,DUCKING BAYS,STAIRCASES	2,768.10sqm				3.20% OF SITE
TOTAL NET FLOOR AREAS	6,799.30sqm	TOTAL AREA PER USE:		CARS	
		TOTAL GROSS WAREHOUSE FLOOR AREAS	6,054.80sqm	CAR SPACES PROVIDED = 107 CAR SPACES (INCLUDING 1 DISABLED CAR SPACE)	
		TOTAL GROSS MEZZANINE/OFFICE AREAS	2,330.00sqm	BICYCLE SPACES PROVIDED = 58 BICYCLE SPACES	
		TOTAL GROSS STORAGE FLOOR AREAS	702.10sqm		

SECOND FLOOR BASE : 3,328.20sqm

PROPOSED FIRST FLOOR PLAN

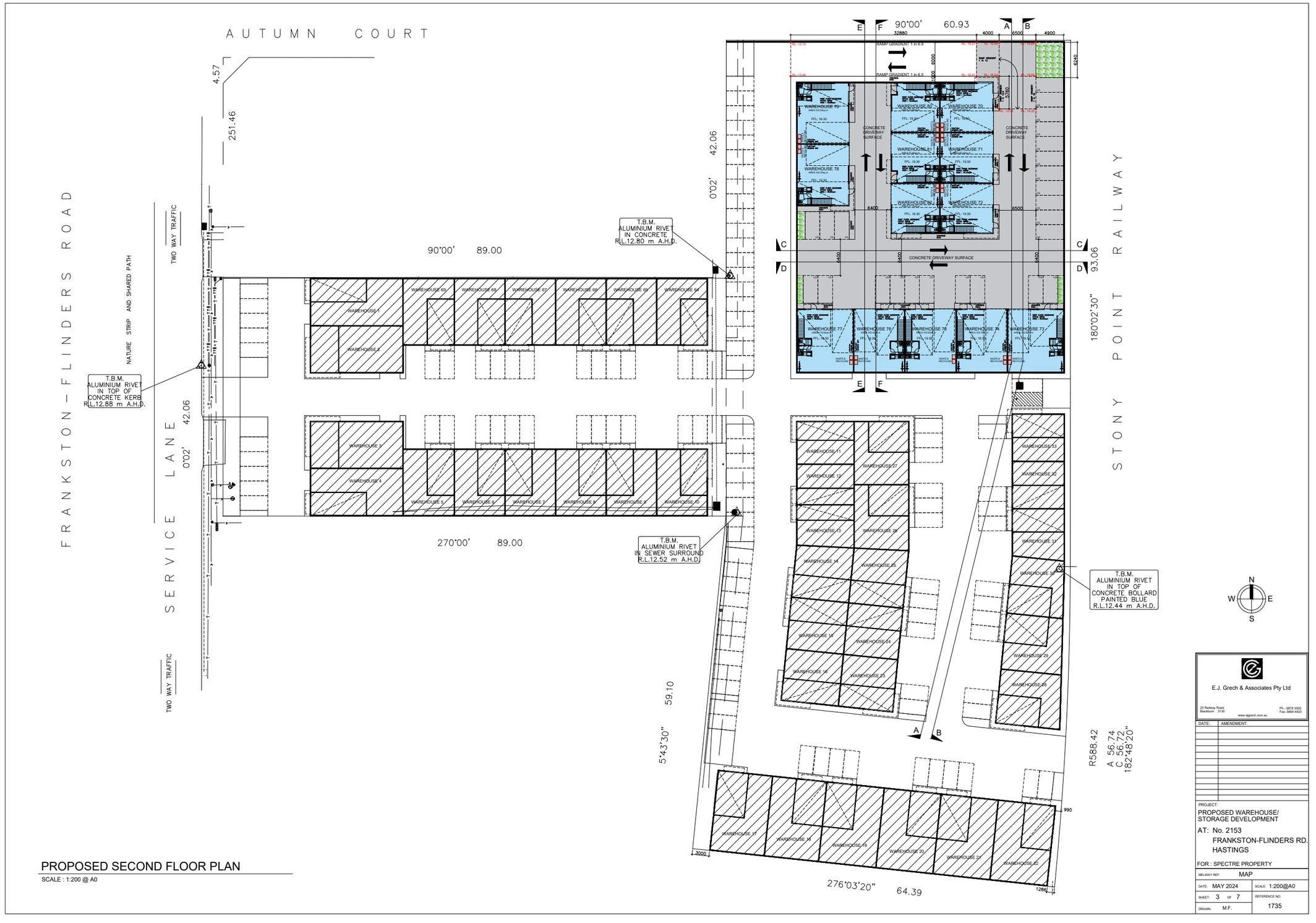
SCALE : 1:200 @ A0

E.J. Grech & Associates Pty Ltd
23 Railway Road Blackburn 3130
Ph - 9878 3500 Fax- 9894 4425
www.ejgrech.com.au

DATE: AMENDMENT:

PROJECT:
PROPOSED WAREHOUSE/ STORAGE DEVELOPMENT
AT: No. 2153 FRANKSTON-FLINDERS RD. HASTINGS
FOR : SPECTRE PROPERTY

MELWAY REF: MAP
DATE: MAY 2024 SCALE: 1:200@A0
SHEET: 2 OF 7 REFERENCE NO: 1735
DRAWN: M.F.



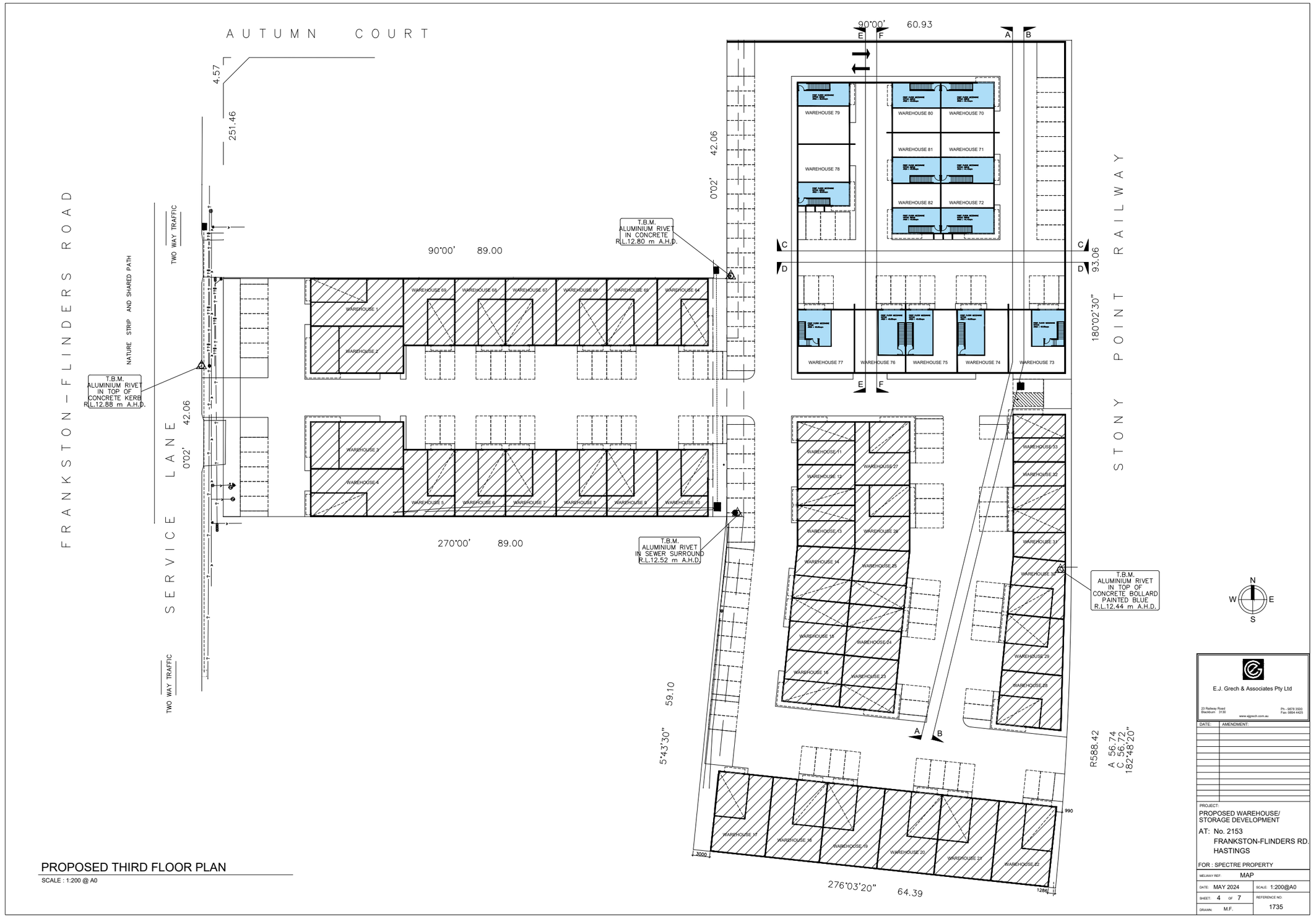
PROPOSED SECOND FLOOR PLAN
SCALE : 1:200 @ A0

E.J. Grech & Associates Pty Ltd
23 Railway Road Blackburn 3130
Ph - 9878 3500 Fax- 9894 4425
www.ejgrech.com.au

DATE:	AMENDMENT:

PROJECT:
PROPOSED WAREHOUSE/ STORAGE DEVELOPMENT
AT: No. 2153 FRANKSTON-FLINDERS RD. HASTINGS
FOR : SPECTRE PROPERTY

MELWAY REF: MAP	
DATE: MAY 2024	SCALE: 1:200@A0
SHEET: 3 OF 7	REFERENCE NO: 1735
DRAWN: M.F.	



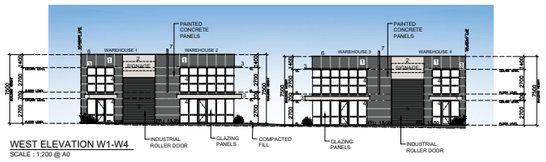
PROPOSED THIRD FLOOR PLAN
SCALE : 1:200 @ A0

E.J. Grech & Associates Pty Ltd
23 Railway Road Blackburn 3130
Ph - 9878 3500 Fax- 9894 4425
www.ejgrech.com.au

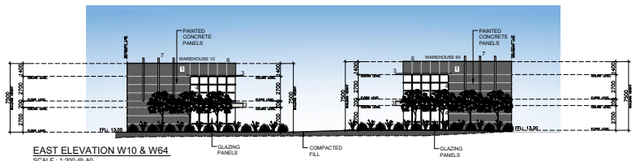
DATE:	AMENDMENT:

PROJECT:
PROPOSED WAREHOUSE/ STORAGE DEVELOPMENT
AT: No. 2153 FRANKSTON-FLINDERS RD. HASTINGS
FOR : SPECTRE PROPERTY

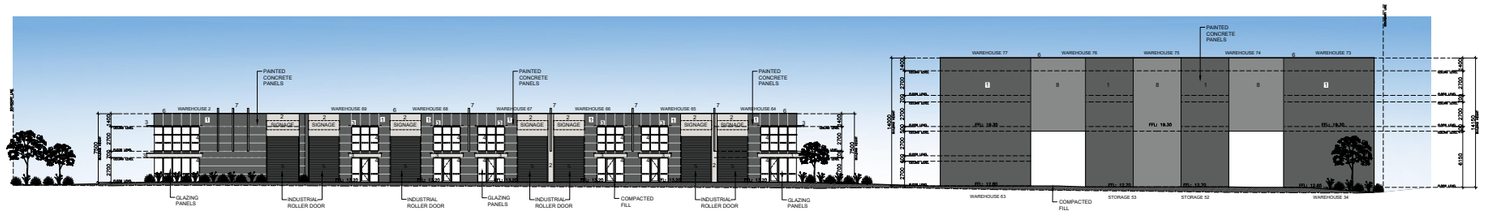
MELWAY REF: MAP	
DATE: MAY 2024	SCALE: 1:200@A0
SHEET: 4 OF 7	REFERENCE NO: 1735
DRAWN: M.F.	



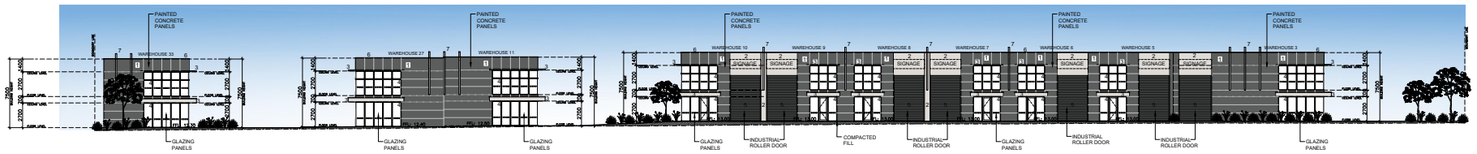
WEST ELEVATION W1-W4
SCALE : 1:200 @ A0



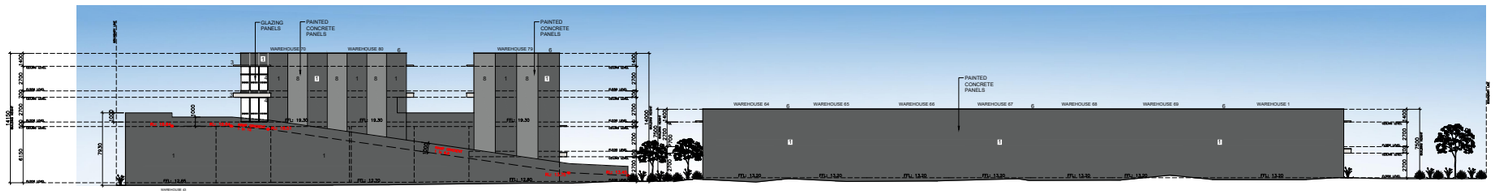
EAST ELEVATION W10 & W64
SCALE : 1:200 @ A0



SOUTH ELEVATION W2, W64-W69, W34, S52, S53, W63, W73-W77.
SCALE : 1:200 @ A0



NORTH ELEVATION W33, W11 & W27, W3 & W5-W10
SCALE : 1:200 @ A0



NORTH ELEVATION W43, W70, W81,W79, W1 & W64-W69
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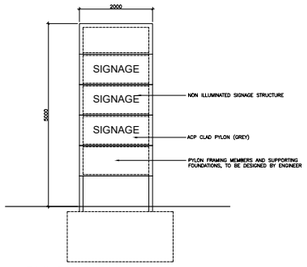
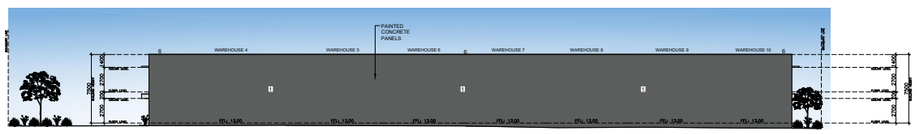
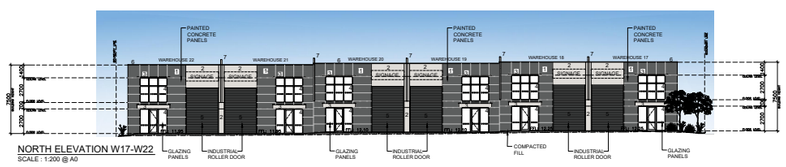


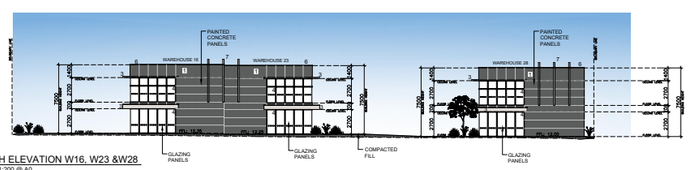
PYLON SIGN
SCALE : 1:50 @ A0



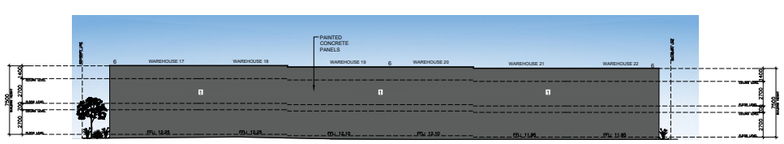
SOUTH ELEVATION W4-W10
SCALE : 1:200 @ A0



NORTH ELEVATION W17-W22
SCALE : 1:200 @ A0



SOUTH ELEVATION W16, W23 &W28
SCALE : 1:200 @ A0



SOUTH ELEVATION W17-W22
SCALE : 1:200 @ A0

MATERIAL AND COLOR SCHEDULE

1	CONCRETE PANEL EXTERNAL WALLS TO MATCH COLORBOND BASALT
2	CONCRETE PANEL EXTERNAL WALLS TO MATCH COLORBOND SURFMIST
3	FASCIA TO MATCH COLORBOND SURFMIST
4	ALUMINIUM WINDOWS TO MATCH POWDERCOAT COLOUR BASALT
5	ROLL-A-SHUTTER DOORS TO MATCH POWDERCOAT COLOUR BASALT
6	FLASHING TO MATCH COLORBOND BASALT
7	FEATURE BLADE TO MATCH COLORBOND SURFMIST
8	CONCRETE PANEL EXTERNAL WALLS TO MATCH COLORBOND WINDSPRAY

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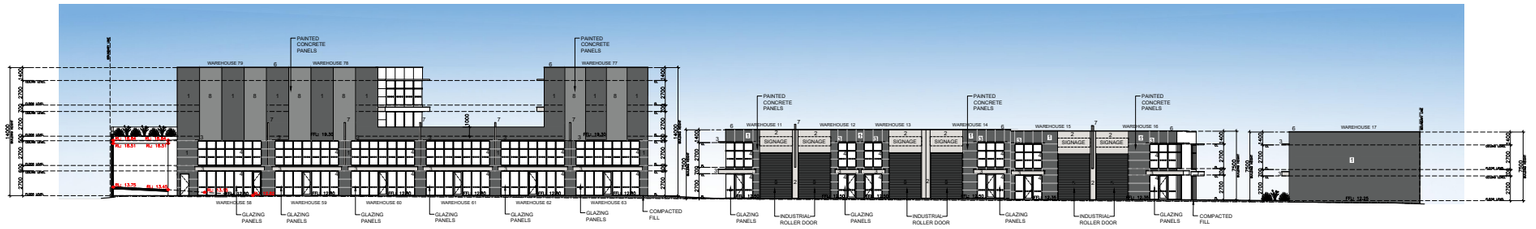
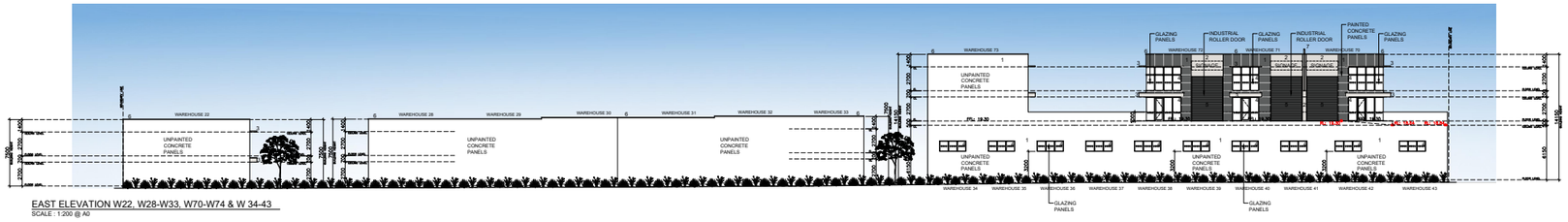
DATE:	AMENDMENT:

PROJECT:
PROPOSED WAREHOUSE/ STORAGE DEVELOPMENT
AT: No. 2153 FRANKSTON-FLINDERS RD. HASTINGS
FOR : SPECTRE PROPERTY

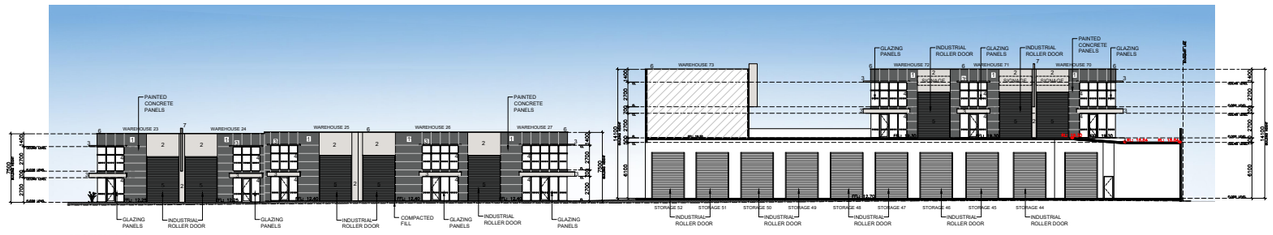
MELWAY REF:	MAP
DATE: MAY 2024	SCALE: 1:200@A0
SHEET: 5 OF 7	REFERENCE NO: 1735
DRAWN: M.F.	



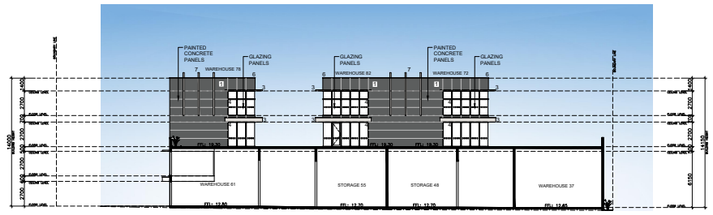
WEST ELEVATION W58-63, W70, W78, W79, 81, W11-W16 & W17
SCALE : 1:200 @ A0



EAST ELEVATION W22, W28-W33, W70-W74 & W 34-43
SCALE : 1:200 @ A0



SECTION A-A
SCALE : 1:200 @ A0



SECTION C-C
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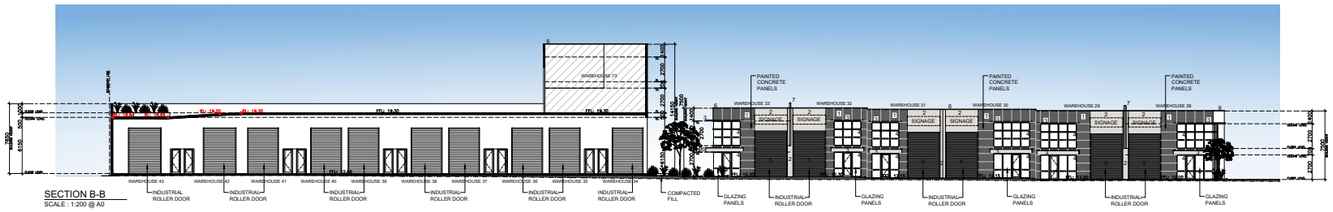

SECTION B-B
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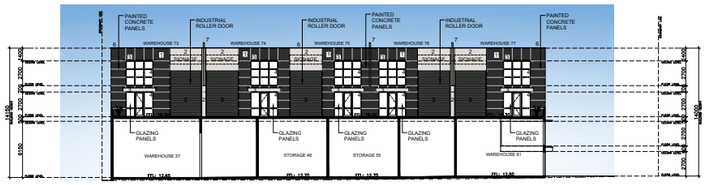

SECTION D-D
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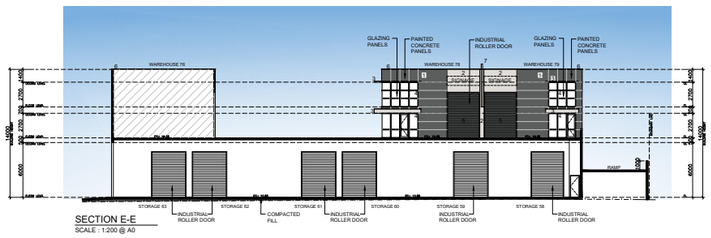

SECTION E-E
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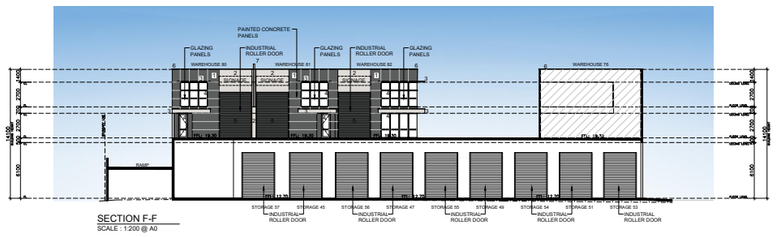

SECTION F-F
SCALE : 1:200 @ A0

MATERIAL AND COLOR SCHEDULE

1	CONCRETE PANEL EXTERNAL WALLS TO MATCH COLORBOND BASALT
2	CONCRETE PANEL EXTERNAL WALLS TO MATCH COLORBOND SURFMIST
3	FASCIA TO MATCH COLORBOND SURFMIST
4	ALUMINIUM WINDOWS TO MATCH POWDERCOAT COLOUR BASALT
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DATE:	AMENDMENT:

PROJECT:
PROPOSED WAREHOUSE/
STORAGE DEVELOPMENT
AT: No. 2153
FRANKSTON-FLINDERS RD.
HASTINGS
FOR : SPECTRE PROPERTY

MELWAY REF:	MAP
DATE: MAY 2024	SCALE: 1:200@A0
SHEET: 6 OF 7	REFERENCE NO: 1735
DRAWN: M.F.	

NOTE: The entire site area including roof runoff is to be diverted to Ocean Protect's Cascade Separator. The outflows from the Cascade Separator will be channeled to an Ocean Protect's Jellyfish. Refer to civil drainage drawings for locations of Cascade Separator and Ocean Protect's Jellyfish.

LEGEND

10% of roof area of warehouse to be translucent roof sheet with minimum 50% VLT

4kW Solar PV on development

ROOF PLAN

SCALE : 1:200 @ A0

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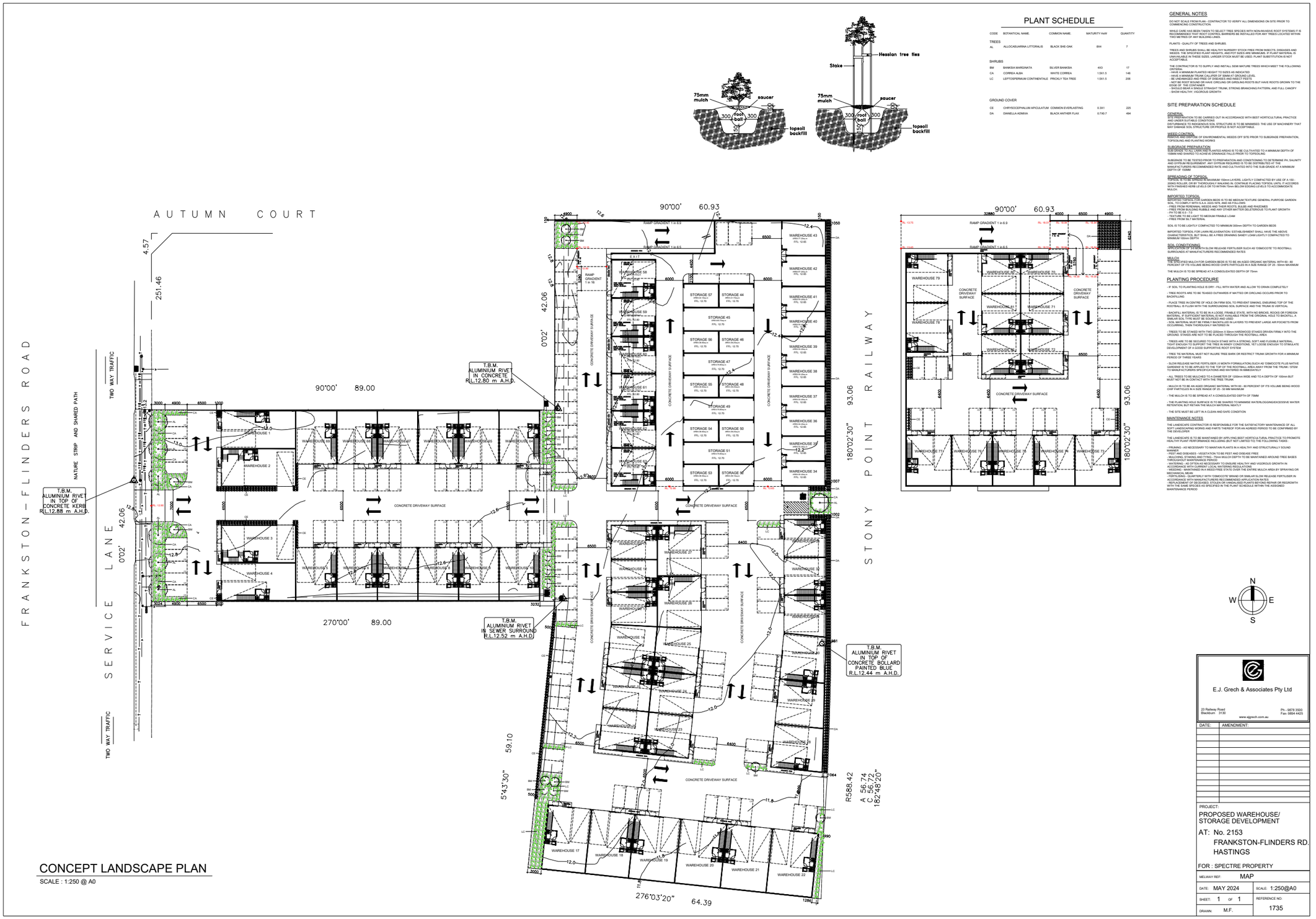
DATE:	AMENDMENT:

PROJECT:
PROPOSED WAREHOUSE/ STORAGE DEVELOPMENT
AT: No. 2153 FRANKSTON-FLINDERS RD. HASTINGS
FOR : SPECTRE PROPERTY

MELWAY REF:	MAP
DATE: MAY 2024	SCALE: 1:200@A0
SHEET: 7 OF 7	REFERENCE NO: 1735
DRAWN: M.F.	



PLANT SCHEDULE

CODE	BOTANYCIAL NAME	COMMON NAME	MATURITY HxW	QUANTITY
TREES				
AL	ALLOCASUARINA LITTORALIS	BLACK SHE-OAK	8X4	7
SHRUBS				
BM	BANKSIA MARGINATA	SILVER BANKSIA	4X3	17
CA	CORREA ALBA	WHITE CORREA	1.5X1.5	146
LC	LEPTOSPERMUM CONTINENTALE	PROCILY TEA TREE	1.5X1.5	206
GROUND COVER				
CE	CHRYSOCEPHALUM APICULATUM	COMMON EVERLASTING	0.3X1	225
DA	DIANELLA ADMIXA	BLACK ANTHER FLAX	0.7X0.7	494

GENERAL NOTES

DO NOT SCALE FROM PLAN – CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING CONSTRUCTION.

WHILE CARE HAS BEEN TAKEN TO SELECT TREE SPECIES WITH NON-INVASIVE ROOT SYSTEMS IT IS RECOMMENDED THAT ROOT CONTROL BARRIERS BE INSTALLED FOR ANY TREES LOCATED WITHIN TWO METRES OF ANY BUILDING LINES.

PLANTS - QUALITY OF TREES AND SHRUBS.

TREES AND SHRUBS SHALL BE HEALTHY NURSERY STOCK FREE FROM INSECTS, DISEASES AND WEEDS. THE SPECIFIED PLANT HEIGHTS, AND POT SIZES ARE MINIMUMS. IF PLANT MATERIAL IS UNAVAILABLE IN THESE SIZES, LARGER STOCK MUST BE USED. PLANT SUBSTITUTION IS NOT ACCEPTABLE.

THE CONTRACTOR IS TO SUPPLY AND INSTALL SEMI MATURE TREES WHICH MEET THE FOLLOWING CRITERIA:
- HAVE A MINIMUM PLANTED HEIGHT TO SIZES AS INDICATED
- HAVE A MINIMUM TRUNK CALIPER OF 50MM AT GROUND LEVEL
- BE UNDAMAGED AND FREE OF DISEASES AND INSECT PESTS
- HAVE A HEALTHY ROOT SYSTEM HAVE CIRCLING OR GIRDLING ROOTS BUT HAVE ROOTS GROWN TO THE EDGE OF THE CONTAINER
- SHOULD BEAR A SINGLE STRAIGHT TRUNK, STRONG BRANCHING PATTERN, AND FULL CANOPY
- SHOW HEALTHY, VIGOROUS GROWTH

SITE PREPARATION SCHEDULE

GENERAL
SITE PREPARATION TO BE CARRIED OUT IN ACCORDANCE WITH BEST HORTICULTURAL PRACTICE UNDER FAVOURABLE CONDITIONS.
DISTURBANCE TO INDIGENOUS SOIL STRUCTURE IS TO BE MINIMISED. THE USE OF MACHINERY THAT MAY DAMAGE SOIL STRUCTURE OR PROFILE IS NOT ACCEPTABLE.

WEED CONTROL
REMOVAL AND DISPOSE OF ENVIRONMENTAL WEEDS OFF SITE PRIOR TO SUBGRADE PREPARATION, TOPSOILING AND PLANTING WORKS

SUBGRADE PREPARATION
ALL GARDEN BEDS AND PLANTED AREAS IS TO BE CULTIVATED TO A MINIMUM DEPTH OF 100MM AND SHAPED TO ACHIEVE DRAINAGE FALLS PRIOR TO TOPSOILING

SUBGRADE TO BE TESTED PRIOR TO PREPARATION AND CONDITIONING TO DETERMINE PH, SALINITY AND GYPSUM REQUIREMENT. ANY GYPSUM REQUIRED IS TO BE DISTRIBUTED AT THE MANUFACTURERS RECOMMENDED RATE AND CULTIVATED INTO THE SUB-GRADE AT A MINIMUM DEPTH OF 100MM

SPREADING OF TOPSOIL
TOPSOIL IS TO BE SPREAD IN MAXIMUM 150mm LAYERS, LIGHTLY COMPACTED BY USE OF A 150 - 200KG ROLLER, OR BY THOROUGHLY WALKING IN. CONTINUE PLACING TOPSOIL UNTIL IT ACCORDS WITH FINISHED HERE LEVELS OR TO WITHIN 75mm BELOW EDGING LEVELS TO ACCOMMODATE MULCH

IMPORTED TOPSOIL
IMPORTED TOPSOIL FOR GARDEN BEDS IS TO BE MEDIUM TEXTURE GENERAL PURPOSE GARDEN MIX, FREE FROM CLAY LUMPS, STONES AND OTHER DELETERIOUS MATERIAL
- FREE FROM PERENNIAL WEEDS AND THEIR ROOTS, BULBS AND RHIZOMES
- FREE FROM BUILDING RUBBLE AND ANY OTHER MATTER DELETERIOUS TO PLANT GROWTH
- PH TO BE 6.5 - 7.0
- TEXTURE TO BE LIGHT TO MEDIUM FRIABLE LOAM
- FREE FROM SILT MATERIAL

SOIL IS TO BE LIGHTLY COMPACTED TO MINIMUM 300mm DEPTH TO GARDEN BEDS

IMPORTED TOPSOIL FOR LAWN REJUVENATION / ESTABLISHMENT SHALL HAVE THE ABOVE CHARACTERISTICS, BUT SHALL BE A FREE DRAINING SANDY LOAM LIGHTLY COMPACTED TO MINIMUM 100mm DEPTH

SOIL CONDITIONING
SOIL CONDITIONER TO BE WORKED IN SLOW RELEASE FERTILISER SUCH AS 'OSMOCOTE' TO ROOTBALL SURROUNDS AT MANUFACTURERS RECOMMENDED RATES

MULCH
THE SPECIFIED MULCH FOR GARDEN BEDS IS TO BE AN AGED ORGANIC MATERIAL WITH 60 - 80 PERCENT OF ITS VOLUME BEING WOOD CHIPS PARTICLES IN A SIZE RANGE OF 25 - 50mm MAXIMUM

THE MULCH IS TO BE SPREAD AT A CONSOLIDATED DEPTH OF 75mm

PLANTING PROCEDURE

- IF SOIL TO PLANTING HOLE IS DRY - FILL WITH WATER AND ALLOW TO DRAIN COMPLETELY

- TREE ROOTS ARE TO BE TEASED OUTWARDS IF MATTED OR CIRCLING OCCURS PRIOR TO BACKFILLING

- PLACE TREE IN CENTRE OF HOLE ON FIRM SOIL TO PREVENT SINKING, ENSURING TOP OF THE ROOTBALL IS FLUSH WITH THE SURROUNDING SOIL SURFACE AND THE TRUNK IS VERTICAL

- BACKFILL MATERIAL IS TO BE IN A LOOSE, FRIABLE STATE, WITH NO BRICKS, ROCKS OR FOREIGN MATERIAL GREATER THAN 50mm DIAMETER. USE SOIL REMOVED FROM THE ORIGINAL HOLE TO BACKFILL A SIMILAR SOIL TYPE MUST BE SOURCED AND USED
- SOIL MATERIAL MUST BE FIRMLY BACKFILLED IN LAYERS TO PREVENT LARGE AIR POCKETS FROM OCCURRING, THEN THOROUGHLY WATERED IN

- TREES TO BE STAKED WITH TWO 2250mm X 50mm HARDWOOD STAKES DRIVEN FIRMLY INTO THE GROUND. STAKES ARE NOT TO BE PLACED THROUGH THE ROOTBALL AREA

- TREES ARE TO BE SECURED TO EACH STAKE WITH A STRONG, SOFT AND FLEXIBLE MATERIAL, TIGHT ENOUGH TO SUPPORT THE TREE IN WINDY CONDITIONS, YET LOOSE ENOUGH TO STIMULATE DEVELOPMENT OF A GOOD SUPPORTIVE ROOT SYSTEM

- TREE TIE MATERIAL MUST NOT INJURE TREE BARK OR RESTRICT TRUNK GROWTH FOR A MINIMUM PERIOD OF THREE YEARS

- SLOW RELEASE NATIVE FERTILISER (4 MONTH FORMULATION) SUCH AS 'OSMOCOTE PLUS NATIVE GARDENS' IS TO BE APPLIED TO THE TOP OF THE ROOTBALL AREA AWAY FROM THE TRUNK / STEM TO MANUFACTURERS SPECIFICATIONS AND WATERED IN IMMEDIATELY

- ALL TREES TO BE MULCHED TO A DIAMETER OF 1200mm WIDE AND TO A DEPTH OF 100mm BUT MUST NOT BE IN CONTACT WITH THE TREE TRUNK

- MULCH IS TO BE AN AGED ORGANIC MATERIAL WITH 60 - 80 PERCENT OF ITS VOLUME BEING WOOD CHIP PARTICLES IN A SIZE RANGE OF 25 - 50 MM MAXIMUM

- THE MULCH IS TO BE SPREAD AT A CONSOLIDATED DEPTH OF 75MM

- THE PLANTING HOLE SURFACE IS TO BE SHAPED TO MINIMISE WATERLOGGING/EXCESSIVE WATER RETENTION, BUT RETAIN THE MULCH MATERIAL NEATLY

- THE SITE MUST BE LEFT IN A CLEAN AND SAFE CONDITION

MAINTENANCE NOTES

THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE SATISFACTORY MAINTENANCE OF ALL LANDSCAPE PLANTING WORKS AND PARTS THEREOF FOR AN AGREED PERIOD TO BE CONFIRMED BY THE DEVELOPER

THE LANDSCAPE IS TO BE MAINTAINED BY APPLYING BEST HORTICULTURAL PRACTICE TO PROMOTE HEALTHY PLANT PERFORMANCE INCLUDING BUT NOT LIMITED TO THE FOLLOWING TASKS:

- PRUNING - AS NECESSARY TO MAINTAIN PLANTS IN A HEALTHY AND STRUCTURALLY SOUND MANNER
- PEST AND DISEASES - VEGETATION TO BE PEST AND DISEASE FREE
- MULCHING, STAKING AND TYING - 75mm MULCH DEPTH TO BE MAINTAINED AROUND TREE BASES THROUGHOUT MAINTENANCE PERIOD
- WATERING - AS REQUIRED IN RESPONSE TO ENSURE HEALTHY AND VIGOROUS GROWTH IN ACCORDANCE WITH CURRENT LOCAL WATERING REGULATIONS
- WEEDING - MAINTAINED IN A WEED FREE STATE OVER THE ENTIRE MULCH AREA BY SPRAYING OR MECHANICAL MEAN
- FERTILISING - QUARTERLY WITH 'OSMOCOTE' BRAND OR SIMILAR SLOW RELEASE FERTILISER IN ACCORDANCE WITH MANUFACTURERS RECOMMENDED APPLICATION RATES
- REPLACEMENT OF DECEASED, STOLEN OR VANDALISED PLANTS BEYOND REPAIR OR REGROWTH WITH THE SAME SPECIES AS SPECIFIED IN THE PLANT SCHEDULE WITHIN THE ASSIGNED MAINTENANCE PERIOD

N W E S

CONCEPT LANDSCAPE PLAN

SCALE : 1:250 @ A0

E.J. Grech & Associates Pty Ltd
23 Railway Road Blackburn 3130
Ph - 9878 3500 Fax- 9804 4425
www.ejgrech.com.au

DATE:	AMENDMENT:

PROJECT:
PROPOSED WAREHOUSE/ STORAGE DEVELOPMENT
AT: No. 2153 FRANKSTON-FLINDERS RD. HASTINGS
FOR : SPECTRE PROPERTY

MELWAY REF: MAP	
DATE: MAY 2024	SCALE: 1:250@A0
SHEET: 1 OF 1	REFERENCE NO: 1735
DRAWN: M.F.	

2153 Frankston-Flinders Road, Hastings
Planning Report

19 August 24

Document No.	Document Form	Prepared By	Reviewed By	Dated
1.	Draft	R. Green	A. Robinson	18/03/2024
2.	Final Draft	R. Green	A.Robinson	28/05/2024
3.	Final	A. Ratcliffe	A.Robinson	19/082024

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1 Introduction

proUrban Advisory, Planning & Management ('proUrban') act on behalf of 'TPH Holding Co Pty Ltd ATF TPH Holding Trust' ('the applicant') in relation to the land at 2153 Frankston-Flinders Road, Hastings ('the Site').

The applicant has requested that proUrban prepare and submit an application for planning approval to enable a warehouse and store development at the subject site. The permit application is made to Mornington Peninsula Shire Council ('the responsible authority').

This report has been informed by:

- A review of the Mornington Peninsula Planning Scheme and the relevant clauses and planning policy contained therein;
- A detailed inspection of the subject site and surrounding area;
- A review of the architectural plans prepared by E.J. Grech & Associates.

This report provides:

- A description of the site and surrounding area.
- A description of the proposal.
- An outline of the relevant statutory planning framework.
- An assessment of the proposal against the relevant provisions of the Mornington Peninsula Planning Scheme.
- An assessment of the key issues as they relate to the proposal.
- An assessment of the merits of the proposal.

This report should be read in conjunction with the following plans and reports:

- Architectural Plans prepared by E.J. Grech & Associates;
- Landscape Plan prepared by E.J. Grech & Associates;
- Sustainability Management Plan prepared by Melbourne Sustainability Consultants;
- Traffic Impact Assessment prepared by Impact; and
- Cultural Heritage Management Plan prepared by Heritage Insight Pty Ltd.

Overall, we submit that the proposal is generally consistent with the relevant policy objectives and the intent of the Mornington Peninsula Planning Scheme and presents an appropriate design response to the site's opportunities and constraints and the broader context of the surrounding area.

2 Site Context

Site Description

The site is located at 2153 Frankston-Flinders Road, Hastings and can be formally identified as Lot A on Registered Plan of Strata Subdivision 030399S.

The site is not impacted by any title related encumbrances which would impact the outcome of the proposal. The site is impacted by the following easements which run north-south down the centre of the site:

- E-1 – Drainage and Sewerage easement
- E-2, E-3, E-4 - Sewerage easement

The site is irregularly shaped, covering an area of 1.28 hectares and benefited by a frontage of 42m to Frankston-Flinders Road. The site extends 149m to the rear (east).

The site is located centrally in the block bounded by Autumn Court (north), Reid Parade (south), and the Stony Point Metropolitan rail line (east). The site is located within a cluster of industrial land, and is approximately 700m from the Hastings town centre to the northeast.

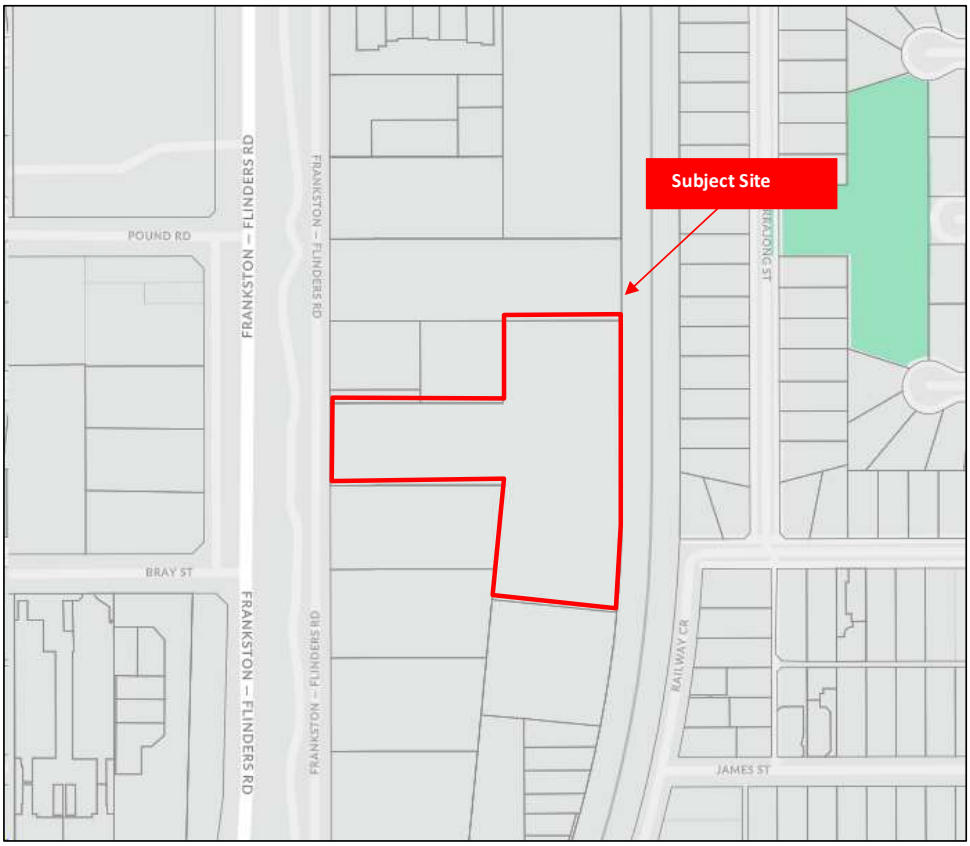

Figure 1 | Cadastral image of subject site (Source: Landchecker)

Existing Conditions

The site is currently being used for caravan, boat and large vehicle storage facility and is accompanied by a small demountable administration building. The site is covered by minimal vegetation and is not bituminised, with informal dirt accessways providing internal access. The site is accessible via a single crossover to the west off Frankston- Flinders Road.

Surrounding Area

Located on the eastern side of the Mornington Peninsula, the site is located over 60km south-east of the Melbourne CBD.

The site is located in within the Hastings Major Activity Centre (MAC), which holds State significance including the Port of Hastings as a key Transport Gateway and the Port of Hastings State Significant Industrial Precinct identified with Plan Melbourne.

The site benefits from direct access to the Frankston-Flinders Road which is key north-south road linkage for the eastern Mornington Peninsula. The site is also close located to the Stony Point Metropolitan Train Line and located less than 1km from the Hastings Train Station to the north.

Surrounding development along Frankston-Flinders Road generally consists of 1-2 storey commercial and industrial built form with a diverse range of uses such as warehousing, store, retail, and commercial showrooms. The immediate surrounds of the site largely consist of commercial and industrial development.

The rail line acts as a buffer between the industrial zoned land and residential zoned land to the east, consisting of low-scale residential dwellings.

Figure 3 | Aerial image of subject site and surrounds (Source: Landchecker)

Site Interfaces

North

To the north, the site abuts a number of small format warehouse developments in addition to commercial warehouse and retail uses. Further north is low-density residential development and Autumn Court.

East

To the east the site adjoins the rail line, with further low-scale residential development and a public park.

South

To the south the site abuts a new small format warehouse development currently under construction. Beyond this is further warehouse development and Reid Parade, followed by Warrengine Creek Streamside Reserve.

West

To the west the site abuts Frankston-Flinders Road, followed by commercial and industrial development and low density residential development.

3 Proposal

The proposal seeks approval for the use and development of the site to accommodate a warehouse and store development inclusive of 68 warehouses with ancillary offices and 14 storage units.

Land Use

The subject site will be used for the purposes of a warehouse and store. Offices are proposed but are considered ancillary to the primary warehouse use. Land use mix can be further detailed in the following:

- Warehouse (ancillary office):
  - 68 units, 8,885 sqm GFA / 6,141 sqm NFA
- Store:
  - 14 units, 702 sqm GFA / 1,111 sqm Site Area

Built Form

The proposal seeks approval for 2-4 storey built form on the site. To the south and west of the site are two storey warehouse units with ancillary offices within a mezzanine level. The warehouses are constructed to a height of 7.5m.

The 14 store units are proposed on the northeast section of the site on the ground floor. Access to the stores is provided via roller doors on ground level. Above the store units are further warehouse units with ancillary office constructed to a height of 14.1m. A ramp along the northern boundary in the northeast of the site provides vehicle access up to the second storey to access warehouse units 70-82.

The warehouse units and ancillary offices will vary in size ranging from 73m^2 to 146m^2. Similarly, the store units range from 38m^2 to 76m^2.

The built form proposed is typical of what is found within industrial areas. The use of colour and varying materials have been used to articulate the façades of the buildings. The materials proposed for the building are commensurate with standard industrial warehouse developments and the surrounding area and include a range of white and grey colours.

Please refer to the attached architectural plans by E.J. Grech for details on the proposed built form and materiality.

Signage

The development proposes tenancy signs on the building frontage in addition to a pylon sign in the site's frontage which includes 10sqm of business identification signage. No signs on site are proposed to be illuminated.

Landscaping

The proposed development provides a landscaped setback of between 3m and 4.9m along Frankston-Flinders Road. Accordingly, landscaping and tree planting will be provided along the street frontage as well as several internal points throughout the site. Landscaping includes the provision of seven (7) canopy trees, in addition to shrubs and ground coverings.

The site achieves a total landscaped area of 5.2%. This provision is commensurate with other industrial developments within the area and broader municipality. More specifically, the proposal achieves a landscaping outcome consistent with the approved development to the north of the site (6/2135 Frankston-Flinders Road, Hastings).

Car and Bicycle Parking and Access

The development proposes the provision of 137 car parking spaces including 1 DDA parking space. The spaces would be split across the warehouses and stores, with entry/egress to the site and car parking spaces provided by the double-width vehicular crossover from Frankston-Flinders Road. All warehouses will contain integrated loading bays.

The development proposes 58 bicycle parking spaces provided within selected warehouse tenancies.

Please refer to the attached Architectural Drawings prepared E.J. Grech & Associates and the traffic report prepared by Impact for further details.

4 Statutory Planning Controls

Zone

Industrial 3 Zone

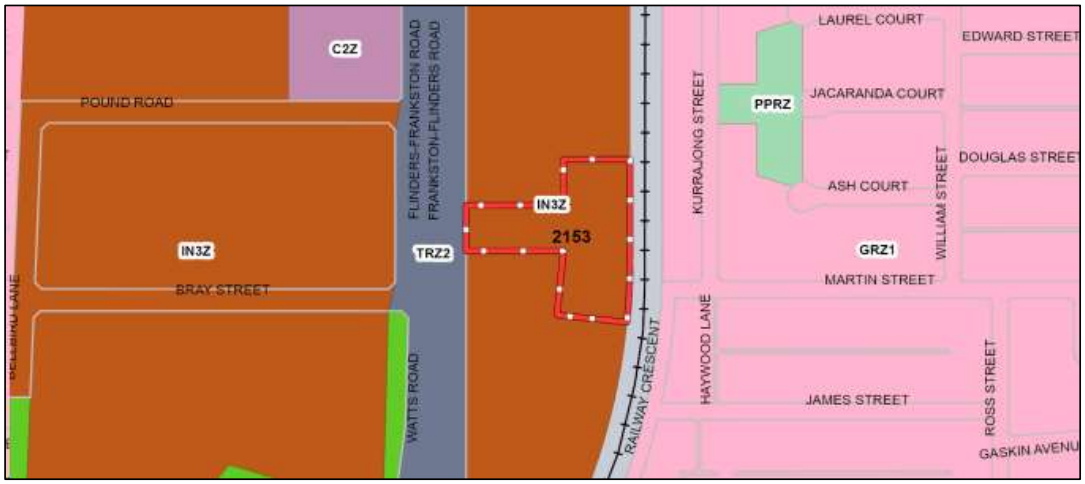

Figure 5 | Industrial 3 Zone

The subject site is located within the Industrial 3 Zone (IN3Z). The purpose of the IN3Z is to:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To provide for industries and associated uses in specific areas where special consideration of the nature and impacts of industrial uses is required or to avoid inter-industry conflict.*
- *To provide a buffer between the Industrial 1 Zone or Industrial 2 Zone and local communities, which allows for industries and associated uses compatible with the nearby community.*
- *To allow limited retail opportunities including convenience shops, small scale supermarkets and associated shops in appropriate locations.*
- *To ensure that uses do not affect the safety and amenity of adjacent, more sensitive land uses.*

Pursuant to Clause 33.03-1, a permit **is required** to use the land for warehouse if the site is within 30m of land zoned for residential purposes.

Pursuant to Clause 33.03-4, a permit **is required** to construct a building or to constrict or carry out works.

The allocated signage control for the site is Category 2 for the purposes of the requirements defined at Clause 52.05.

The following decision guidelines apply to applications for buildings and works:

- The Municipal Planning Strategy and the Planning Policy Framework.
- Any natural or cultural values on or near the land.
- Streetscape character.
- Built form.
- Landscape treatment.
- Interface with non-industrial areas.
- Parking and site access.
- Loading and service areas.
- Outdoor storage.
- Lighting.

- Stormwater discharge.
- The effect on nearby industries.
- The effect of nearby industries

Aboriginal Cultural Heritage Sensitivity

Per the below, the site is located in area of Aboriginal Cultural Heritage sensitivity.

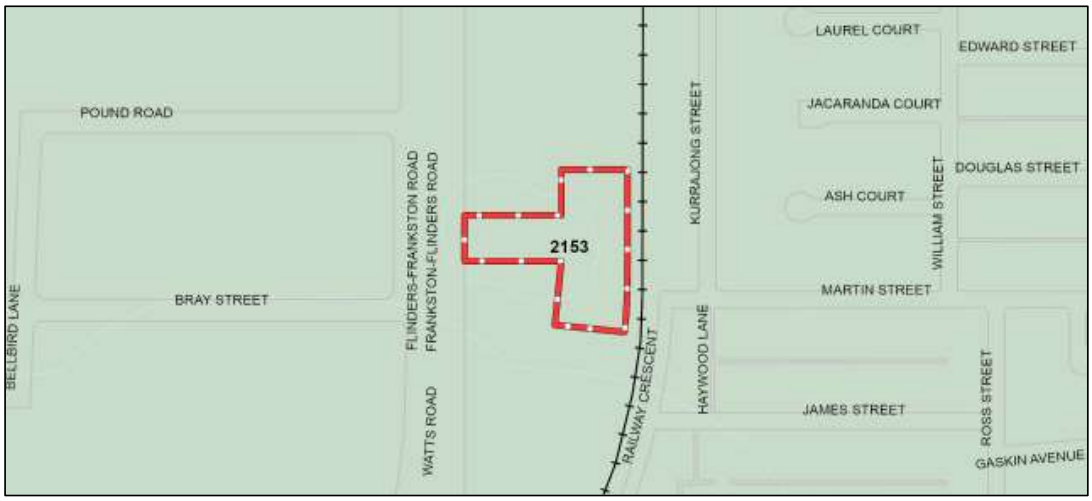

Figure 5 | Site within Aboriginal Cultural Heritage Sensitivity Area

A Cultural Heritage Management Plan (CHMP) has been prepared for the site previously. Please refer to the CHMP prepared by *Matthew Barker and Renee McAlister* for further information.

Particular Provisions

The particular provisions are specific prerequisites or planning provisions for a range of particular uses and developments and apply consistently across the state. Unless specified otherwise, the particular provisions apply in addition to the requirements of a zone or overlay.

Clause 52.05 - Signage

Clause 52.05 of the Mornington Planning Scheme relates to the provision signs. The relevant signage objectives include:

- *To regulate the development of land for signs and associated structures.*
- *To ensure signs are compatible with the amenity and visual appearance of an area, including the existing or desired future character.*
- *To ensure signs do not contribute to excessive visual clutter or visual disorder.*
- *To ensure that signs do not cause loss of amenity or adversely affect the natural or built environment or the safety, appearance, or efficiency of a road.*

Pursuant to the Industrial 3 Zone, the sign controls for the site fall under category 2 – Office and industrial.

For business identification signs, the total display area of all signs to each premises must not exceed 8 sqm.

An assessment against relevant decision guidelines will be provided in subsequent sections of this report.

Clause 52.06 - Car Parking

Clause 52.06 of the Mornington Planning Scheme relates to the provision of car parking. The relevant car parking objectives include:

- *To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework.*
- *To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and nature of the locality.*
- *To support sustainable transport alternatives to the motor car.*
- *To promote the efficient use of car parking spaces through the consolidation of car parking facilities.*
- *To ensure that car parking does not adversely affect the amenity of the locality.*
- *To ensure that the design and location of car parking is of a high. standard, creates a safe environment for users and enables easy and efficient use.*

The following table outlines the required car parking rates for the proposed uses in accordance with Clause 52.06:

Clause 52.06 Requirement	Assessment
Warehouse – 2 to each premises plus, 1.5 to each 100sqm of NFA.	6,141 sqm NFA = 92 spaces 68 tenancies = 136 spaces Total requirement = 227 spaces
Store – 10% of site area	1,111m^2 of store, site area Total requirement = 111 sqm set aside for car parking

As 137 car parking spaces are proposed, a dispensation of 91 spaces is required for the warehouses. For the stores, 118 sqm of site area is allocated which exceeds the required provision of 111 sqm.

Accordingly, a permit **is required** to reduce the number of required car parks under Clause 52.06.

Clause 53.18 – Stormwater Management in Urban Development

The purpose of Clause 53.18 is to ensure that stormwater in urban development, including retention and reuse, is managed to mitigate the impacts of stormwater on the environment, property and public safety, and to provide cooling, local habitat and amenity benefits.

The stormwater management system should be designed to:

- *Meet the current best practice performance objectives for stormwater quality as contained in the Urban Stormwater – Best Practice Environmental Management Guidelines (Victorian Stormwater Committee, 1999).*
- *Minimise the impact of chemical pollutants and other toxicants including by, but not limited to, bunding and covering or roofing of storage, loading and work areas.*
- *Contribute to cooling, improving local habitat and providing attractive and enjoyable spaces.*

Clause 52.29 – Land Adjacent to the Principal Road Network

The purpose of Clause 52.29 is to:

- *To ensure appropriate access to the Principal Road Network or land planned to form part of the Principal Road Network.*
- *To ensure appropriate subdivision of land adjacent to Principal Road Network or land planned to form part of the Principal Road Network.*

A permit is required to create or alter access to road in a Transport Zone 2.

Accordingly, a permit **is required** for the proposed crossover to Frankston-Flinders Road pursuant to Clause 52.29.

Clause 52.34 – Bicycle Facilities

Clause 52.34 of the Mornington Planning Scheme outlines the purpose of the bicycle facilities provisions as follows:

- *To encourage cycling as a mode of transport*
- *To provide secure, accessible, and convenient bicycle parking spaces and associated shower and change facilities*

Clause 52.34 of the Mornington Planning Scheme outlines the bicycle requirements for a range of uses. Use of the land for a warehouse and store are not included in Clause 52.34, meaning the proposal must justify the appropriate provision of bicycle parking to the Responsible Authority.

The development proposed to provide 58 bicycle spaces across the site, with one (1) allocated to 58 of the warehouse units.

5 Planning Permit Requirements

The planning permit triggers associated with the proposal are summarised in the following points.

Land Use

Pursuant to Clause 33.03-1 (IN3Z), a planning permit is **required** to use the land for a warehouse or store as the land is less than 30 metres from the neighbouring residential land.

The office spaces within the warehouses are ancillary and therefore are exempt from use related permit requirements.

Building and Works

Pursuant to Clause 33.03-4, a planning permit **is required** to construct a building or construct or carry out works.

Signage

Pursuant to Clause 52.05-12, a permit **is required** to provide business identification signage which exceeds 8sqm on the premises.

Car Parking and Access

Pursuant to the Table of Uses at Clause 52.06-3, a planning permit **is required** to reduce the number of car parking spaces required under 52.06-5.

Pursuant to Clause 52.29-2, a planning permit **is required** to create or alter access to a road in a Transport 2 Zone.

Notice and Review

The application is **not exempt** from notice and review provisions of the Act.

6 Relevant Planning Policy

Plan Melbourne

Plan Melbourne (2017-2050) is a State-level planning document outlining the strategic framework for the Melbourne region to 2050. The document encourages the redevelopment of underutilised land, particularly urban renewal areas, with close proximity to employment, various services and public transport infrastructure. Furthermore:

- It seeks to respond to the challenges of population growth, driving economic prosperity and liveability.
- It defines what kind of city Melbourne will be and identifies the infrastructure, services and major projects which need to be put in place to underpin the city's growth
- It is the State Government's blueprint for Melbourne's future prosperity, liveability and sustainability
- The Strategy addresses Melbourne's infrastructure, housing, employment and environmental challenges with an integrated approach to planning, based broadly on principles of transit-oriented development that includes land use, transport and social and community infrastructure.

As previously discussed, Plan Melbourne identifies Hastings as a Major Activity Centre (MAC).

Plan Melbourne also identifies the Port of Hastings as a State Significant Industrial Precinct (SSIP). SSIPS have the following purpose:

- *To provide strategically located land for major industrial development linked to the Principal Freight Network and transport gateways.*
- *They will be protected from incompatible land uses to allow continual growth in freight, logistics and manufacturing investment.*

Plan Melbourne also identifies the Port of Hastings as a Transport Gateway which has the following purpose:

- *To secure adequate gateway capacity for moving passengers and freight into and out of Victoria and support future employment and economic development opportunities at major ports, airports and interstate terminals.*
- *They will be protected from incompatible land uses but adjacent complementary uses and employment generating activity will be encouraged.*

Planning Policy Framework

The PPF seeks to ensure that the objectives of Planning in Victoria are fostered through appropriate land use and development policies. The PPF integrates relevant environmental, cultural, social and economic factors in the interest of net community benefit and sustainable development. The PPF is also integrated with the local planning policy framework to include local and site-specific polices.

Those clauses most relevant to the current proposal include:

<u>Settlement</u>

- ***Clause 11.01-1S Settlement****: To facilitate the sustainable growth and development of Victoria and deliver choice and opportunity for all Victorians through a network of settlements.*
- ***Clause 11.02-1S Supply of urban land****: To ensure a sufficient supply of land is available for residential, commercial, retail, industrial, recreational, institutional and other community uses.*
- ***Clause 11.03-1S Activity Centres****: To encourage the concentration of major retail, residential, commercial, administrative, entertainment and cultural developments into activity centres that are highly accessible to the community.*

Built Environment and Heritage

- ***Clause 15.01-1S Urban design****: To create urban environments that are safe, functional and provide good quality environments with a sense of place and cultural identity.*
- ***Clause 15.01-1R Urban design – Metropolitan Melbourne****: To create a distinctive and liveable city with quality design and amenity.*
- ***Clause 15.01-2S Building design****: To achieve building design and siting outcomes that contribute positively to the local context, enhance the public realm and support environmentally sustainable development.*
- ***Clause 15.01-2L-01 Building Design – Mornington Peninsula*** *– policy applies to land in an Industrial Zone:*
    - *Encourage the redevelopment of older and underutilised industrial sites to make effective use of available infrastructure and improve the amenity of adjoining areas.*
    - *Support the design of new industrial areas that incorporates lots that facilitate buildings that front, rather than back onto, adjoining roads and other public areas.*
- ***Clause 15.01-2L-02 Environmentally Sustainable development:*** *To achieve best practice in environmentally sustainable development from the design stage through to construction and operation.*
    - An SMP and GTP are required for non-residential development exceeding 1,000sqm GFA.
- ***Clause 15.01-4S Healthy Neighbourhoods****: To achieve neighbourhoods that foster healthy and active living and community wellbeing.*
- ***Clause 15.01-4R Healthy Neighbourhoods – Metropolitan Melbourne****: Create a city of 20 minute neighbourhoods, that give people the ability to meet most of their everyday needs within a 20 minute walk, cycle or local public transport trip from their home.*

Economic Development

- ***Clause 17.01-1S Diversified Economy****: To strengthen and diversify the economy.*
- ***Clause 17.02-1S Business****: To encourage development that meets the community's needs for retail, entertainment, office and other commercial services.*
- ***Clause 17.03-1S Industry:*** *To ensure availability of land for industry.*
- ***Clause 17.03-1L Industrial land supply – Mornington Peninsula:*** *Ensure the location of industrial development does not generate industrial through traffic on residential roads.*
- ***Clause 17.03-2S Sustainable Industry:*** *To facilitate the sustainable operation of industry.*
- ***Clause 17.03-3S State Significant Industrial Land:*** *To protect industrial land of state significance.*
    - *Ensure sufficient availability of strategically located land for major industrial development, particularly for industries and storage facilities that require significant threshold distances from sensitive or incompatible uses.*

Transport

- ***Clause 18.01-1S Land Use and Transport Integration****: To facilitate access to social, cultural and economic opportunities by effectively integrating land use and transport.*
- ***Clause 18.01-3S Sustainable and Safe Transport:*** *To facilitate an environmentally sustainable transport system that is safe and supports health and wellbeing.*

Strategic Planning Documents

Mornington Peninsula Industrial Areas Strategy (2018)

The purpose of the MPIAS is to provide an assessment of industrial areas on the Mornington Peninsula, the major economic drivers of industrial land use in the region, and strategic policy direction for the Shire's industrial areas. The strategy outlines overarching principles and actions, as well as area-specific actions for industrial areas.

The strategy identifies the site as within the Hastings Industrial Area and provides specific actions for investigation into the expansion of industrial areas and associated infrastructure to support it within Hastings. The following overarching principles of the MPIAS are also stated below:

- *Recognise the importance of industrial areas as critical components of the Mornington Peninsula's economy, and as an important source of the goods and services required to support business and the general community.*
- *Ensure that planning for industrial areas has due consideration for, and is complementary to, the Mornington Peninsula Activity Centres Strategy, given the crossover between land uses relevant to both policy frameworks.*
- *Support the growth of industrial and appropriate commercial activities on the Mornington Peninsula through the provision of serviced and readily-developable land at appropriate locations which support jobs, investment, business growth and economic prosperity.*
- *Manage and plan for industrial areas which operate in a manner that reflects the importance of liveability and amenity to residents of the Mornington Peninsula.*

7 Planning Assessment

A consideration of the planning merits of the proposal and how it responds to relevant policies and planning provisions in relation to the proposed use and building and works have been assessed below. The assessment addresses the proposal against the following points:

- Planning Policy Response
- Land Use
- Built Form
- Signage
- Mornington Peninsula Industrial Areas Strategy (MPIAS) (2018) & Industrial Land Use & Infrastructure Assessment and Rezoning Strategy (ILU & IARS) (2020)
- Car Parking and Access
- Waste Management
- Environmentally Sustainable Development

Plan Melbourne Response

The proposal responds to the broad objectives of Plan Melbourne by:

- Provision of industrial development in a well-connected, strategic location to support the role of Hastings as a key transport gateway and State Significant Industrial Precinct.
- Providing an appropriate industrial use which is compatible with surrounding land uses.
- Developing underutilised industrial land and providing opportunities for investment to stimulate the industrial economy and employment generation.

Planning Policy Response

By facilitating industrial development in this location, the proposed development achieves consistency with the objectives of the PPF through:

- Promoting job opportunities in relative proximity to residential labour forces and assisting to ensure a strong and prosperous economy.
- Supporting the industrial focus in Mornington and its economic importance for local communities and the rest of the municipality.
- Proximity to major road and rail infrastructure and the Hastings Major Activity Centre supports access and active transport liveability and amenity to residents.
- Attracting and retaining industries that contribute towards a greater diversity of economic activity.
- Supporting industrial development that achieves a positive impact on the visual and environmental amenity of the municipality and mitigates potential of noise, air, water and land pollution.
- Providing industrial activity in an area identified for industrial uses and in doing so protecting the location from the encroachment of unplanned commercial, residential and other sensitive uses which would adversely affect industry viability.
- Proposing the sustainable development and operation of industrial land uses.
- Incorporating ancillary uses, amenities, and appropriate landscaping buffers in front setbacks to enhance the general amenity of the area.

Land Use

The proposed use achieves a high level of consistency with the purpose of the IN3Z through providing warehouse tenancies and storage units in an identified industrial precinct, which is appropriately separated from sensitive uses and will not have any adverse impacts on the safety and amenity of local communities.

The use of the land for offices will be subservient to the dominant warehouse use on the land, comprising a small percentage overall development ensuring that it will not impact the overall purpose of the zone.

The development will be located on underutilised industrial land within an industrial precinct and is considered appropriate given the smaller scale of the built form and the types of occupants it is expected to attract. The proposed uses are consistent with surrounding uses, which includes a number of small, medium, and large-scale warehouses and industrial uses surrounding the development site.

We consider that the separation offered by the rail line is sufficient to mitigate any interface amenity impacts for the neighbouring residential area. we note that similar uses have been approved both north and south of the land with the same separation distance.

There are currently no confirmed future occupants for the proposed development. As such, it is difficult to confirm the purpose of the use, the types of processes that will be utilised or the type and quantity of goods to be stored, processed or produced.

We note speculative developments are very common within industrial areas as it is easier to attract occupants once there is planning surety.

It is understood that the proposed warehouse tenancies are targeted towards small goods e-commerce stores, trade and light industrial services and mancaves/hobbyists. Specifically, the intended use of the proposed warehouse tenancies is not for heavy industrial purposes as commonly seen in large warehouse developments.

Built Form

The proposed built form is considered appropriate in this location and consistent with the objectives of the applicable planning controls.

The following table provides a response to the relevant strategies and policy guidelines under Clause 15.01-2L – Building Design – Mornington Peninsula, which is applicable to all land in industrial zones:

Clause 15.01-2L Strategies & Policy Guidelines	Response
Encourage the redevelopment of older and underutilised industrial sites to make effective use of available infrastructure and improve the amenity of adjoining areas.	The proposed development will improve the current site conditions and make a positive contribution to the character of the area. The built form is supported by considered landscape design that will complement the proposed built form and provide for an attractive streetscape presentation. Quality has been the emphasis of the design phase to ensure the proposal meets the applicants' requirements whilst producing a superior outcome to that experienced with developments in the vicinity of the subject site.
Support retail or office uses in industrial areas that are: • Ancillary to an industrial use on the same site (such as manufacturing sales).	The proposed office uses are ancillary to the primary use of a warehouse and make up a small percentage of the NFA.

• Intended primarily to provide services to the industrial area (such as food premises or industry supplies).	Offices are designed in connection with each warehouse, providing a quality product conducive of industrial investment with the intention of providing services and amenity to the industrial area.
Minimise access routes that may cause intrusion of industrial traffic into residential areas.	The site is only accessible via the Frankston-Flinders Road Street frontage which is separated from residential areas via a service road and wide landscaped median strip. The proposal seeks to provide a consolidated two-way crossover from this street frontage to minimise traffic movements.
Support the provision of landscaping, using native vegetation of local origin where appropriate, that contributes positively to the appearance of industrial development and provides screening of industrial activity.	All selected plant species are of native origin. Native trees, shrubs and ground coverings have been carefully selected to provide a positive appearance to the development. A landscaped front setback includes seven (7) trees which reach 8m at mature height, providing screening to Frankston-Flinders Road. Small, landscaped strips are also included in the interior and ground coverings along site boundaries, further supporting visual amenity.
Encourage siting of security fencing behind landscaping to reduce visual impact.	Security fencing will be provided as required, and behind the landscaping areas.
Support the design of new industrial areas that incorporates lots that facilitate buildings that front, rather than back onto, adjoining roads and other public areas.	Buildings have been articulated to front the street frontage Road where possible, noting the unique shape of the lot. The development is designed for access and amenity directed toward the street frontage.
Support building design that is orientated towards adjoining roads and public spaces by: • Avoiding blank building façades and incorporating windows and other design elements. • Locating office components at the front of the building.	The proposed development employs a measured architectural approach and provides warehouses with built-in offices located toward the front of each warehouse unit. Facades are designed to be visually attractive through carefully selected materials and finishes and windows to ensure articulation and to break up the massing of the built form. The eastern elevation has been carefully considered, noting its interface to residential areas across from the railway line. This elevation is articulated with glazed panels, unpainted concrete panels and boundary landscaping.
Development proposals should provide: • Waste material storage bins in locations that enable effective screening and convenient collection or emptying of such bins. • Safe pedestrian movement between buildings and parking areas.	Waste and recycling are conveniently located internally within each warehouse and accessed by loading bays, negating the need for screening. Car parks are conveniently located close to building entries to allow safe passage for pedestrians within the development.

• Emergency access.	Emergency access is supported through the sites proposed double-width entry/egress.
Setting back buildings from the primary road frontage: • In accordance with the established building line for the road. • A minimum of 15 metres, with the first 9 metres set aside for landscaping. This setback may be reduced to 9 metres if the land does not adjoin a Transport Zone 2 or Transport Zone 3 and the maximum building height does not exceed 4.5 metres within 15 metres of the frontage.	Proposed buildings are setback 15.4 metres from the primary road frontage, exceeding that of adjoining properties. A landscaped front setback of 3-7.9m is provided. This is considered acceptable noting the varied provision of landscaped setbacks along Frankston-Flinders Road and the broader industrial area. The proposal ensures visual amenity and streetscape presentation will remain of high-quality and in keeping with the area.
Providing a landscaped area with a minimum of 20 per cent of the site area that includes the frontage setback landscape area but excludes any areas that have a dimension of less than 3 metres.	Adequate areas of landscaping have been provided throughout the site consistent with the wider area including the adjacent development to the north.
Designing buildings with a maximum height of 10 metres.	The majority of built form on the site, and buildings closest to the street frontage are constructed to a height of 7.5m. A small section in the northeast of the site provides buildings up to 14m in height. Accordingly, a small proportion of built form on the overall site is proposed to exceed 10m and is generously setback from all site boundaries excluding warehouse 73. This portion of the site is located more than 90m from the street frontage. The height aligns with other industrial developments in the area and is deemed suitably positioned on the site.
Constructing the external walls and pitched roofing of buildings using concrete masonry, brick, colour-treated steel cladding or other non-reflective materials.	The built form proposes standard materials and finishes that are commonly associated with industrial developments. External walls are constructed using basalt and pale grey, and unpainted concrete panels.

Further to the above, policy guidance recently introduced includes the following:

POLICY GUIDELINES	**RESPONSE**
Clause 15.01-2L-01 - Building Design – Mornington Peninsula	
Development proposals should provide: • Screening for external storage areas. • Screening for all structures above the building roofline. • Waste material storage bins in locations that enable effective screening and convenient collection or emptying of such bins.	The proposal suggests a considered design response to ensure warehouse/storage activities seamlessly integrate into the surrounding context. Garden beds and landscaping are carefully placed to the sites façade and throughout the balance of the land to ensure a visual division is achieved and storage areas are screened from the streetscape. External plant and roofline structures are not anticipated to be visible form the streetscape

• Safe pedestrian movement between buildings and parking areas. • Emergency access.	however, will similarly be screened with vertical feature blades to generate visual interest. Waste material storage bins are situated and easily accessible within each storage unit to limit visibility and urge appropriate management. Delineated pedestrian paths are proposed to the boundaries of storage unit blocks and are clearly identifiable by their concrete materiality. Adjacent driveways and road access provides sufficient emergency access to each unit. Please refer to the attached architectural drawings prepared by *E.J Grech & Associates Pty Ltd.*
Setting back buildings from the primary road frontage: • In accordance with the established building line for the road. • A minimum of 15 metres, with the first 9 metres set aside for landscaping. This setback may be reduced to 9 metres if the land does not adjoin a Transport Zone 2 or Transport Zone 3, and the maximum building height does not exceed 4.5 metres within 15 metres of the frontage.	The proposal suggests a front setback to the Frankston Flinders Road service lane of 15.42 metres, adopting a 3m landscaped strip to the façade boundary and further landscaping abutting the vehicle entrance and lot boundaries. A landscaped treatment of this nature is considered to be contextually appropriate noting a similar landscaped treatment surrounding properties, namely 2161 and 2183 Frankston-Flinders Road. It is considered that a combination of the proposed setback and landscaping treatment by way of a tiered canopy tree and shrubbery placements will sufficiently screen the proposal whilst ensuring the industrial land use is easily identifiable.
Setting back buildings a minimum of 5 metres from a side road, with the setback area set aside for landscaping.	The subject site does not abut a road to the side boundary.
Setting back buildings a minimum of 20 metres from residentially-zoned lots.	Noting the presence of a railway line to the sites eastern boundary, there exists a clear 30 metre (approximate) setback to residentially zoned land. This setback, paired with proposed landscaping to the eastern boundary provides an attractive boundary interface.
Providing a landscaped area with a minimum of 20 per cent of the site area that includes the frontage setback landscape area but excludes any areas that have a dimension of less than 3 metres.	The proposal suggests a landscape coverage of 666.30 sqm. This coverage is considered to be contextually consistent and standard for industrial development on industrially zoned land. We note the same percentage of landscaping was approved on the adjacent land to the north of this site and therefore we consider our response to be contextually responsive.
Providing a landscaped area with a minimum dimension of 10 metres along lot boundaries that are adjacent to	A landscaped strip and canopy tree is proposed to the eastern residential interface to soften the appearance of the industrial interface.

either a residentially-zoned lot or any lot occupied by a school or institutional use.	
Designing buildings with a maximum height of 10 metres.	The proposal suggests a variance in height with a tapered transition to the rear boundary. Units proposed to the Frankston-Flinders Road interface adopt a modest 7.2 metre, and lots to the eastern elevation propose a 14.15 metre height to follow the slope of the land. A stepping down in height to the streetscape prevent visual dominance and ensure the greatest height abuts an insensitive railway interface. We note that numerous buildings within the industrial zones exceed 10m. Ultimately a height of 10m is overly restrictive in relation to creating economically viable businesses. Therefore we consider that the propsoed height is acceptable in that it meets the purpose of the zone.
Constructing the external walls and pitched roofing of buildings using concrete masonry, brick, colour-treated steel cladding or other non-reflective materials.	Non-reflective concrete panelling paired with aluminon windows and roller doors are adopted throughout the development. This is considered to be contextually appropriate.

The proposed built form provides a balanced response to the existing building typology of the area and tactfully uses a cohesive variation of materials and cladding to complement the existing industrial character, while establishing a quality precedent of future redevelopment in the precinct.

The built form and siting have been designed to provide visual interest to the street frontage without dominating the streetscape. The building height is consistent with standard commercial and light industrial/warehouse uses across metropolitan Melbourne and the surrounding area and we do not consider any material detriment will result from the proposed built form.

As discussed above, the eastern elevation has been carefully considered noting the residential interface beyond the rail line. We reiterate that the taller built form has a considerable set back from the eastern boundary, excluding one store/warehouse tenancy. This interface incorporates glazing and landscaping for visual interest and the avoidance of blank facades. Further, the maximum height of 14m proposed on a portion of the site is only 3m above the maximum height allowable under the General Residential Zone (applicable to the nearby residential) meaning permissible building heights in the area are generally consistent.

Due to the design and materiality of the building, and nature of the use, the development will not result in loss of visual amenity, privacy or any other material detriment to the residential areas to the east.

Whilst not relevant in this moment, consideration must additionally be given to the seriously entertained implementation of the Design and Development Overlay, Schedule 59 (DDO59). The following tabular response details the proposals adherence to DDO59:

Clause 43.02 Design and Development Overlay, Schedule 59 – proposed (not gazetted)

Design Objectives • To ensure new development retains a consistent streetscape pattern and spacious vegetated appearance that respects the existing character. • To protect the amenity of surrounding residential land and open space. • To ensure new development provides a consistent, attractive and functional appearance. • To ensure new development positively responds to the predominant building materials and styles of the precinct.	In mimicking the landscape and street interface character of surrounding development, the proposal seamlessly integrates into its environment. Façade landscaping paired with a 15.4m front setback additionally ensures the development does not appear as an eyesore to the streetscape. In terms of amenity, the proposal is considerably separated from residentially zoned land and does not suggest a land use that will disrupt residents.
Buildings and Works <u>Siting, setbacks and sensitive interfaces</u> • New buildings should be setback from the front boundary a minimum of 17 metres and 3 metres on one side boundary. • Building coverage should not exceed 50 per cent. • Buildings with a width of greater than 30 metres should be setback from both side boundaries a minimum of 1 metre in order to reduce the impact of a continuous built wall. • A landscaped buffer should be provided in side and rear setbacks along sensitive interfaces. • A minimum 5 metre setback should be provided adjacent to a residential zone for planting of trees and shrubs with access for maintenance. • Setbacks should be provided along public open space interfaces so that overshadowing does not occur at either the autumn or spring equinox. • A transition in building height should be provided so that the scale of industrial built form relates to the scale of residential buildings along the interface.	The proposal suggests appropriate siting, setback and sensitive interface treatments by way of the following: • An extensive 15.4 metre façade setback, • Landscaped buffers to the façade and rear boundaries with shrubbery and canopy tree plantings scattered throughout, • Transition in building height to follow the slope of the land and consider sensitive interface interactions, and • Considered building separations to reduce visual bulk. We note that any controls that restrict site coverage to 50% will significantly hinder the viability of any industrial development. Industrial development (more than any other) relies on high site coverage to provide suitable building space to undertaken related industrial activities.
Height, form and layout • A building should not exceed a height of 9 metres. If a higher built form is required for the purpose of industry or business, taller elements should be recessed from the street. • Building heights should respond to the scale of existing development in the precinct and incorporate lower elements towards the street to relate to the pedestrian scale.	Please refer to the above sections in response to height, form and layout. We note that a building height of 9m is unrealistic for an industrial use, where forms closer to 14-15m are now the normal product being constructed.

• Building height should be stepped down towards residential interfaces. • Building form should be large format, minimising the number of buildings on side and incorporate a pitched roof form. • Buildings should address the street frontage and car parking areas with windows and entrances to provide passive surveillance. • Buildings should provide a minimum of 30 per cent glazing in the façade that fronts the street. • Pedestrian generating uses such as retail and office components should be located at the street frontage to provide visual interest to the street and passive surveillance. • Plant equipment, vents and any other mechanical equipment must be carefully sited or incorporated into the roof such that it is screened or concealed from the views from the street and surrounding public spaces and buildings. • Provide sustainable water use in buildings by implementing measures to collect rain water runoff from roof areas. Ensure water storage / tanks are located away from public view.	
Building materials, design and details • Customer service, retail and office components should be articulated by varying building setbacks, utilising glazing and varying building materials, finishes and colours. • Utilise a limited mix of materials and colours to provide articulation to the buildings and visual interest to the street. • Use muted finishes to complement the predominant semi-rural coastal character palette of materials in the area, such as corrugated iron, timber and textured concrete. • Avoid the excessive use of heavy masonry and unfinished pre-cast concrete walls. • External finishes should be of low reflectivity to minimise glare and reflection to surrounding areas. • Facades that are visible from the street should avoid blank walls and be articulated to provide architectural interest and passive surveillance.	Proposed materiality has been carefully selected to ensure contextual consistency and seamlessly integrate into the surrounding character of the area. A combination of concrete panelling of alternate grey shading, paired with aluminium fenestration ensures: - Low reflectivity - Street visibility and passive surveillance - Materiality mix - Muted colouring.
Vegetation and landscaping	Vegetation across the balance of the land is carefully placed and selected to ensure

• Retain and/or plant mature, established or canopy trees where possible, with a preference for indigenous species where suitable. • Define Tree Protection Zones around existing mature trees and ensure construction does not impact upon these zones. • Provide minimum 5 metre planting strip within front setbacks to allow for trees with a mature height of approximately 8-12 metres, mid-level shrubs of 2-4 metres and groundcovers. All planting areas should be mulched. • Provide minimum 9 square metre formal planting zone for each proposed tree within and around car parks. • Utilise local and non-indigenous species in planting buffers to respond to local character and contribute to biodiversity where possible.	consistency with the immediate area and provide visual breaks in built form. Vegetation and landscaping by way of the following is included to ensure: - Canopy tree coverage - Sufficiently spaced planting zones - Local and non-indigenous planting species are incorporated
Parking, access and circulation • Car parks should be sealed to minimise dust. • New development should allow vehicles to enter and exit in a forward motion. • Where practical, limit vehicle entry points to one consolidated crossover per frontage in order to minimise disruption to pedestrian movement. • Separate pedestrian and vehicle movement with pedestrian crossings and dedicated footpaths where possible. • Car parking within the front setback of the site should be generally restricted to visitor parking. • Large expanses of car park greater than 20 spaces should be located to the side or rear of the building. • Car parking should be avoided within 3 metres of the front property boundary to allow sufficient space for landscaping. • Ensure a landscape buffer is provided between car parking areas and the front property boundary. • Locate storage and loading areas to the rear of the site, away from the primary street frontage.	Car parking, access and circulation has been carefully situated between unit boundaries to ensure the efficient flow of traffic throughout the site. The following has been incorporated to ensure the parking, access and circulation guidelines are addressed: - Sealed car parking - Dual crossover to allow for forward entry and exit - Consolidated single entry point - Visitor car parking - 3 metre front boundary setback to car parking with a landscaped buffer
Fencing • Front fencing should be highly transparent and be softened with the use of landscaping, such as steel picket or black chainmesh for side boundaries and steel picket, black chainmesh or rural post and wire on frontages.	Woven wire mesh fencing is proposed to ensure transparency through to the built form and integration of vegetation.

• Screen fencing (if required), should be designed to integrate with the materials and tones utilised throughout the precinct and should be located within the property.	

The design response as proposed by the application is considered to provide an appropriate response to the abovementioned policy guidance and intention for the area.

Signage

The development proposes tenancy signs on the building frontage, but these do not exceed 8sqm (per tenancy) and therefore do not trigger a permit under Clause 52.05. The pylon sign proposed in the frontage of the site will require planning approval as it is proposed to provide 10 sqm of signage.

The Decision Guidelines outlined at Clause 52.05-8 relate to number of categories discussed in detail below:

Character
The site and proposed signage are located within an Industrial 3 Zone that is comprised of warehouse built form in multiple sizes and diverse activities on site. The site and sign is well-separated from sensitive uses. The site is seeking to create presence to tenants, visitors and delivery drivers and will need to be easily identified amongst the other industrial properties along Frankston-Flinders Road.

Views and Vistas
The views and vistas along Frankston-Flinders Road will not be affected as a result of the erection of the proposed signage. The pylon sign is strategically located within the landscaped setback is appropriately setback from the road network. Sightlines have been considered and are also protected as a result of the proposed setbacks.

Streetscape, Setting and Landscape
The proposed pylon sign will improve the visual amenity of the streetscape by consolidating tenant signage into one location. The sign will complement the commerciality of the industrial area. The position of the signs will be consolidated into landscaped setbacks will not impinge on built form or sight.

Relationship to the Site and Building
The signage is commensurate with the size and scale of the associated buildings within the development, presenting modest 5m in form and contemporary in design as compared with large 7.5m warehouse buildings behind it. It will therefore not detract from any elements of the built form and does not protrude above the skyline.

Structure Associated with the Signage
The signage will be directly affixed to the ground with support structures incorporated into the total design of the sign. As such no additional structures are required on the site.

Illumination & Logo Boxes
Signage is not proposed to be illuminated. The signage is not proposed to incorporate a signage logo box.
The Necessity and Opportunities for Identification. The proposed signage seeks to identify the business accessible via the Service Road and support traffic movement within the road and entry/egress for the development.

Road Safety
The safety of all road users is paramount. The size of the sign will also allow clear and readable text, with only essential messaging displayed. The proposed sign is not animated, electronic, or consisting of any moving parts that would result in any potential distractions to drivers. As such, it is considered that the signage will not present a safety risk to traffic along Frankston-Flinders road or the surrounding road network.

Mornington Peninsula Industrial Areas Strategy (MPIAS) (2018) & Industrial Land Use & Infrastructure Assessment and Rezoning Strategy (ILU & IARS) (2020)

The MPIAS is a guiding document focusing on growth and supply of industrial land within the municipality. Its purpose is to outline area-specific actions however, the actions suggested for the Hastings Industrial Precinct are largely targeted the investigation for increasing industrially zoned land. As such, we provide an assessment against the relevant overarching principles of the MPIAS below:

By redeveloping underutilised land, the proposal contributes to the ongoing growth and strengthening of the industrial industry to support the municipalities economy. The Hastings Industrial Area is located just outside the Hastings Major Activity Centre and therefore, supports economic productivity and employment opportunities for the industrial sector to support the local area and broader region.

The site is located within an industrial precinct which adjoins residential and commercial areas but its appropriately distanced. The site is highly accessible by road and rail, demonstrates its location is highly appropriate and contributes to the liveability of the area.

Car Parking and Access

Clause 52.06 of the Mornington Shire Planning Scheme relates to the provision of car parking. We note that this site is located outside of the Principal Public Transport Network (PPTN). Pursuant to Clause 52.06-5, the following parking rates apply to the development:

Land Use	Requirement	Provided	Variation
Warehouse 68 warehouses 6,141 sqm NFA	2 spaces to each premises plus 1.5 spaces to each 100m^2 of net floor area **228 spaces required**	137 spaces	92 spaces
Store 24 storage units	10% of site area (1,111m^2)	118 sqm	complies

Only car parking provision for the warehouses requires dispensation, the store area is compliant with Clause 52.06. We submit that this shortfall of car spaces can be supported on this site due to the provision of parking to be appropriate given the proposed built form and the anticipated parking demand on-site. Additionally, the provision is commensurate with the provision of car parking approved at nearby properties.

The car parking design, which complies with Clause 52.06 of the planning scheme, will be accessed via the existing crossover from Frankston-Flinders Road.

Ultimately, it is considered that the proposed development will have no adverse impact on traffic safety or flow in the surrounding area. Please refer to the Traffic Report prepared by Impact for further details.

Waste Management

It is proposed to utilise a private contractor to manage the collection and disposal of all waste streams associated with the development. Bins for general rubbish and recycling will be provided for each unit by the private contractor.

Space in the storage will be allocated for hard waste. Both general rubbish and recycling will occur once a week, requiring a separate truck for each waste stream. Waste collection shall occur outside of peak warehouse operation hours to ensure minimal conflict.

It is considered the above waste management process is considered acceptable in the context of the surrounding area.

Environmentally Sustainable Development

A Sustainability Management Plan has been prepared by Melbourne Sustainability Consultants to assess the development's potential to achieve the relevant environmental performance outcomes using the Built Environment Sustainability Scorecard (BESS). The report contains a summary of the environmental objectives adopted for the development which are in line with the Mornington Peninsula Shire planning requirements.

The report confirms that the development achieves appropriate sustainable design outcomes for the scale of development proposed and demonstrates how we intend to meet sustainability requirements and initiatives within the project design, construction and operation. The project achieves a BESS score in excess of 50% and achieves a pass score in the following ESD performance categories:

- Water
- Energy
- Stormwater
- IEQ
- Transport

Please refer to the Sustainability Management Plan prepared by Melbourne Sustainability Consultants for further details.

8 Conclusion

In summary, proUrban has prepared this report in support of the planning permit application seeking approval for the use and development of warehouse and store on the land at 2153 Frankston-Flinders Road, Hastings.

A planning permit is sought pursuant to the following permit triggers:

- To use the land for the purposes of store and warehouse pursuant to Clause 33.03-1;
- To construct a building or carry out works in the Industrial 3 Zone pursuant to Clause 33.03-4;
- To reduce the statutory car parking requirement pursuant to Clause 52.06-5;
- To create or alter access to a road in a Transport 2 Zone pursuant to Clause 52.29-2; and
- To display business identification signage which exceeds 8sqm pursuant to Clause 52.05-12.

We submit that the proposal provides a well-considered development on an underutilised industrial lot benefited by immediate access to freight and road transport. The proposed development will provide additional employment opportunities within the wider municipality.

Overall, the proposed use, built form, landscaping and car parking provision represents a well-resolved development outcome that has taken appropriate consideration of its physical and urban context. The proposal has acknowledged strategic opportunities and development constraints and will make a positive contribution to the amenity envisioned for the wider area.

We consider the proposal is highly consistent with strategic planning policy for the area as established by the relevant planning policies in the Mornington Peninsula Planning Scheme. We submit that the proposal is consistent with all relevant requirements of the Mornington Peninsula Planning Scheme and is worthy of Council support.

We look forward to engaging with Council in a collaborative and engaging planning process to facilitate the approval of this development.

38°18'48.3"S
145°11'02.6"E

Warehouse & Store Development: 2153 Frankston Flinders Road, Hastings

Traffic and Transport Assessment

23 May 2024
Prepared for Spectre Property

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Appendices

APPENDIX A Swept Path Analysis

1 IMPACT® Snap Shot

Development Proposition		
Location	38°00'30.5"S 145°06'47.4"E	2153 Frankston Flinders Road, Hastings
Use	Warehouse (incl. Ancillary Office) & Store Tenancies	
Yield	Warehouse (incl. Ancillary Office): 8,885 sqm GFA / 6,141 sqm NFA (68 tenancies) 14 store tenancies within a site area of 1,111 sqm (702 sqm GFA)	
Parking	137 car spaces, including one (1) DDA compliant space.	
Access Arrangements	One (1) combined ingress / egress crossover to the service lane on Frankston Flinders Road	

Statutory Controls	
Particular Provisions	
Clause 52.06 - Car Parking	
Requirement	**Warehouse:** 197 spaces. **Storage:** 111 sqm set aside for car parking.
Provision	**Warehouse:** 137 spaces. **Storage:** 118 sqm set aside for parking and access (inclusive of 4 spaces within / allocated to store areas)
Adequacy of Provision	**Warehouse:** Case studies of similar uses in similar locations indicates a peak demand range from 0.99-1.23 spaces per 100 sqm. The proposal outlines 132 spaces to service the warehouse tenancies (8,885 sqm GFA across 68 tenancies) and therefore car parking is provided at a rate of 1.49 spaces per 100 sqm. This provision exceeds the case studies, and is therefore considered adequate. **Store:** The proposed provision of site area set aside for parking and access of 118 sqm exceeds the statutory requirements.
Design Considerations	The proposed car parking layout and accessways have been assessed and determined to have satisfied the relevant design guidelines contained within Clause 52.06 and AS2890.1:2004.
Clause 52.29 - Land Adjacent to the Principal Road Network	
Design Considerations	The site contemplates the use of one (1) crossover to allow both an entry and exit onto the service road. This design outcome will conform to the relevant design guidelines to ensure public safety is maintained, and determined to have satisfied the relevant principles contained within Clause 52.29.

Clause 52.34 - Bicycle Parking

Requirement vs Provision	Zero (0) spaces required. 58 spaces provided.
Adequacy of Provision	The proposed provision will encourage bicycle trips by staff to the site.
Design Considerations	The proposed bicycle parking spaces have been assessed and determined to have satisfied the relevant design guidelines contained within Clause 52.34 and AS2890.3:2015.

Clause 65.01 - Loading Arrangements

Design Considerations	The proposed loading arrangements have been assessed and determined to have satisfied the relevant design guidelines / principles contained with Clause 65.01 and AS 2890.2:2018.

Traffic Considerations

Traffic Generation	The proposed development is forecast to generate the following peak hour volumes: AM Peak: 87 vehicle movements during the AM peak, comprising 52 inbound vehicle movements and 35 outbound vehicle movements; and PM Peak: 86 vehicle movements during the PM peak, comprising 33 inbound vehicle movements and 53 outbound vehicle movements.
Traffic Impact	The addition of up to 87 vehicle movements has been assessed using intersection analysis, and determined not to have any detrimental impacts to the operation of the surrounding road network.

Conclusion

- The proposed development satisfies relevant statutory requirements and where the statutory requirements are not explicitly met, the development is deemed to satisfy decision guidelines that allow for a reduction or waiver of the said requirement.
- We consider that there are no traffic and transport grounds that should prohibit the issue of a permit.

2 Introduction

2.1 Engagement

IMPACT® have been engaged by Spectre Property to undertake a Traffic and Transport Impact Assessment for the proposed multi-unit warehouse and store development at 2153 Frankston Flinders Road, Hastings.

2.2 Scope of Engagement

This Traffic and Transport Impact Assessment has been prepared to accompany a town planning submission.

In preparing this assessment we have referenced the following:

- Development plans prepared by E.J Grech & Associates Pty Ltd
- Mornington Peninsula Planning Scheme, specifically:
  - Clause 52.06 - Car Parking
  - Clause 52.29 - Land Adjacent the Principal Road Network
  - Clause 52.34 - Bicycle Facilities
  - Clause 65.01 - Approval of an Application or Plan (Loading Facilities)
- Australian Standard AS2890.1:2004, AS2890.2:2018, AS2890.3:2015 and AS2890.6:2009.

3 Existing Conditions

3.1 Location

The subject site is located on the east side of Frankston Flinders Road as illustrated in Figure 1.

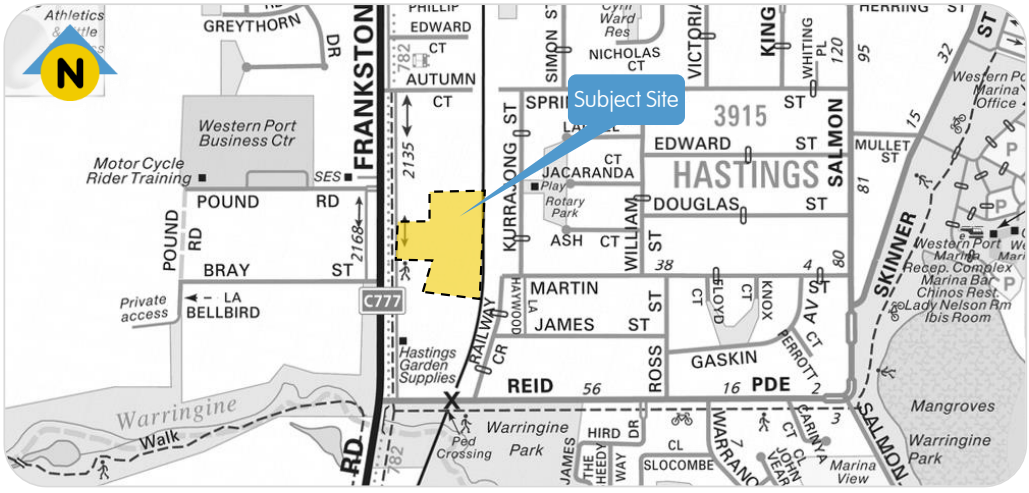


Figure 1 Location of subject site

The site is irregular in shape, with a frontage to Frankston - Flinders Service Road to the west. The land uses surrounding the site are generally industrial in nature.

3.2 Planning Zone

The subject site is located within the Industrial 3 Zone (IN3Z) as illustrated in Figure 2.

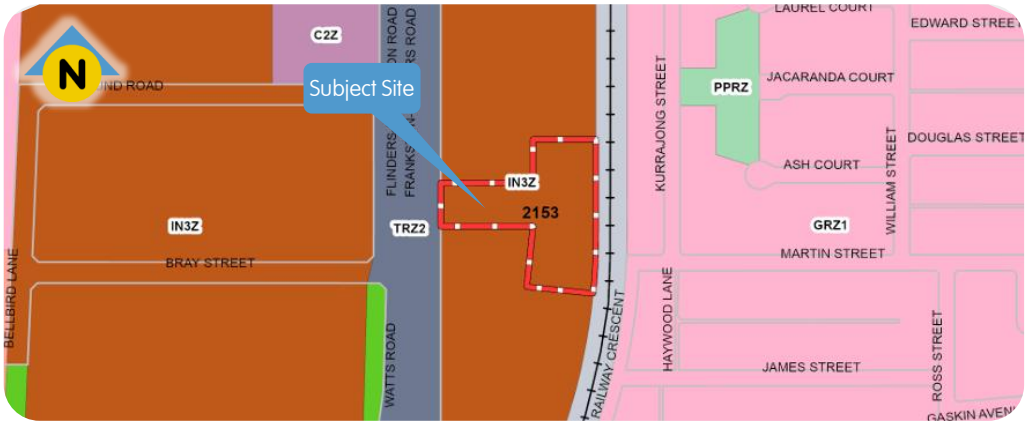


Figure 2 Land Use Planning Zone

The purpose of this zone is to provide for industries and associated uses in specific areas where special consideration of the nature and impacts of industrial uses is required or to avoid inter-industry conflict.

3.3 Road Network

3.3.1 Frankston - Flinders Road

Frankston - Flinders Road functions as an arterial road (located within a Transport Zone 2) aligned between Hastings Road (where it continues as McMahons Road) to the north and Rest Drive (where it continues as Wood Street) to the south.

Along the site frontage, Frankston - Flinders Road comprises an approximate 12 metre road pavement that provides one (1) trafficable lane in each direction.

Additionally, unrestricted parallel parking is provided in each direction.

A speed limit of 70km/h applies along Governor Road. Its typical cross-section is illustrated in Figure 3.

Figure 3 Views of Frankston-Flinders Road, facing north adjacent the subject site

3.3.2 Frankston - Flinders Service Road

Frankston - Flinders Service Road functions as a local road aligned between Phillip Court to the north and Reid Parade to the south.

Along the site frontage, Frankston - Flinders Service Road comprises an approximate 7 metre road pavement that provides one (1) trafficable lane in each direction.

Additionally, parallel kerbside parking is unrestricted.

A default speed limit of 50km/hr applies. Its typical cross-section is illustrated in Figure 4.

Figure 4 Views of Frankston-Flinders Service Road, facing south adjacent the subject site

3.4 Sustainable Transport

The site has limited connection to sustainable transport options.

A summary of the public transport services available within walking distance of the site are summarised in Table 1.

Table 1 Public Transport Options

Service	Station / Route	Description	Walking Distance (from subject site)
Bus	782, 782-783	Balnarring Village SC - Frankston Railway Station via Bray Street & Frankston Flinders Road	150m
Train	Hastings Station	Frankston - Stony Point	900m

3.5 Traffic Conditions

IMPACT® commissioned Trans Traffic Surveys Pty Ltd to undertake traffic movement surveys at the intersection of Frankston-Flinders Road and Reid Parade Road, as well as Frankston Flinders Road and Autumn Court. The surveyed intersections are illustrated in Figure 5 below.

Figure 5 Turning Movement Survey Area

The turning movement surveys were undertaken on:

— **Tuesday 26th March 2024**	6:30am - 9:30am	15-minute intervals
	3:00pm - 6:00pm	15-minute intervals

3.5.1 Peak Hour Traffic Volumes: Intersection Count

A summary of the existing peak hour traffic movements is shown in Figure 6 and 7 overleaf.

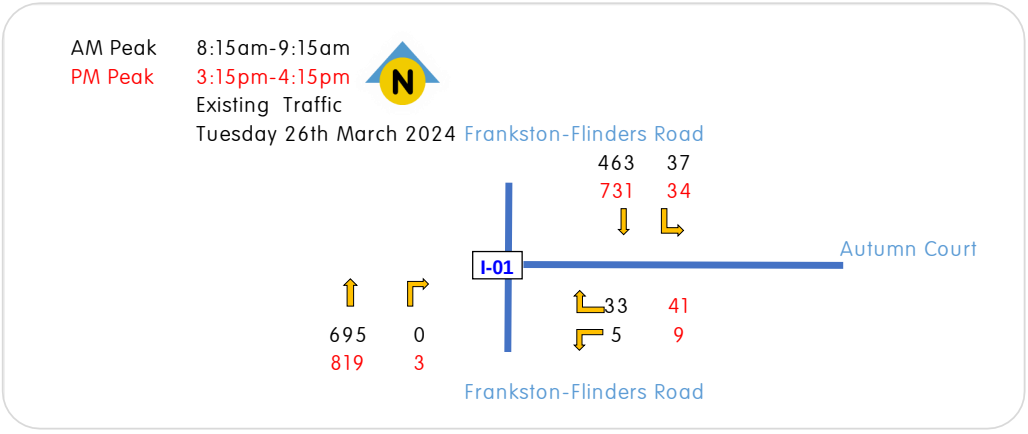


Figure 6 **Existing Traffic Volumes Frankston-Flinders Road / Autumn Court**

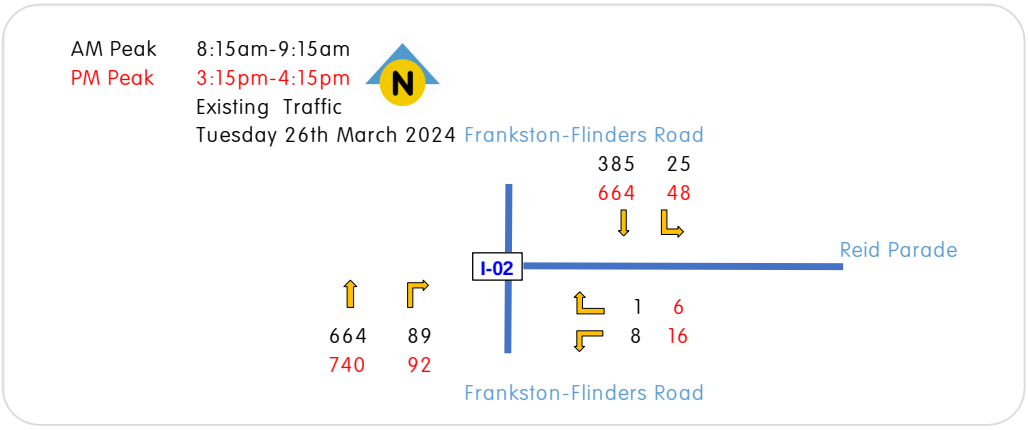


Figure 7 **Existing Traffic Volumes Frankston-Flinders Road / Reid Parade**

3.5.2 Intersection Capacity - SIDRA analysis

The existing operation of the nearby intersections (Frankston Flinders Road / Autumn Court and Frankston Flinders Road / Reid Parade) were analysed using SIDRA Intersection 9.1.

Critical outputs of this network analysis software are:

Degree of Saturation (D.O.S.) - Defined as the ratio of the volume of traffic observed making a movement compared to the maximum capacity for that movement.

These are rated as follows:

D.O.S.	Rating
Up to 0.6	Excellent
0.6 to 0.7	Very Good
0.7 to 0.8	Good
0.8 to 0.9	Fair
0.9 to 1.0	Poor
Above 1.0	Very Poor

A degree of saturation (DoS) greater than 1.0 indicates oversaturated conditions.

95th Percentile (95%ile) Queue - Defined as the maximum queue length, in metres, that can be expected in 95% of observed queue lengths in the peak hour; and

Average Delay - Defined as the delay time, in seconds, which can be expected over all vehicles making a movement in the peak hour.

A summary of the existing intersection analysis is presented in Table 2 and Table 3.

Table 2 Existing Conditions - Frankston Flinders Road / Autumn Court

	Approach	Degree of Saturation	95th%ile Queue	Average Delay
Frankston Flinders Road / Autumn Court				
AM Peak	North	0.25	0 metres	1 second
	South	0.38	0 metres	0 seconds
	East	0.10	3 metres	14 seconds
	Intersection	**0.38**	**3 metres**	**1 second**
PM Peak	North	0.40	0 metres	1 seconds
	South	0.45	1 metres	0 seconds
	East	0.24	6 metres	25 seconds
	Intersection	**0.45**	**6 metres**	**1 seconds**

The analysis reveals that Frankston Flinders Road / Autumn Court operates with an 'excellent' rating during both the AM and PM peak periods.

Table 3 Existing Conditions - Frankston Flinders Road / Reid Parade

	Approach	Degree of Saturation	95th%ile Queue	Average Delay
Frankston Flinders Road / Reid Parade				
AM Peak	North	0.22	0 metres	1 second
	South	0.44	9 metres	2 seconds
	East	0.01	0 metres	7 seconds
	Intersection	**0.44**	**9 metres**	**1 second**
PM Peak	North	0.06	0 metres	1 seconds
	South	0.53	21 metres	3 seconds
	East	0.39	1 metres	13 seconds
	Intersection	**0.53**	**21 metres**	**36 seconds**

The analysis reveals that Frankston Flinders Road / Reid Parade operates with an 'excellent' rating during both the AM and PM peak periods.

4 Development Proposition

4.1 Use and Yield

It is planned to develop the subject site for the purpose of a multi-unit warehouse (with ancillary office) and store development.

4.1.1 Warehouse

A total of 68 tenancies are proposed with ancillary offices, with total area of 8,885 sqm GFA / 6,141 sqm NFA.

4.1.2 Store

A total of 14 store tenancies are proposed with a floor area of 702 sqm (GFA). For the purposes of the assessment, the 'site area' is taken as 1,111 sqm, calculated per Figure 8 and generally includes:

- Building footprint attributed to the store tenancies;
- Car spaces allocated to store units and the access aisle directly adjacent;
- 50% of the access aisle directly adjacent store tenancies which will facilitate loading and access, noting these aisles are also shared with uses opposite the store tenancies (i.e. the access aisles are shared with warehouse loading access).

The 1,111 sqm area includes:

- The parking spaces on the western storage area of the site with a total of 118 sqm, inclusive of four (4) parking spaces.
- The eastern storage areas of the site with a total of 993 sqm.

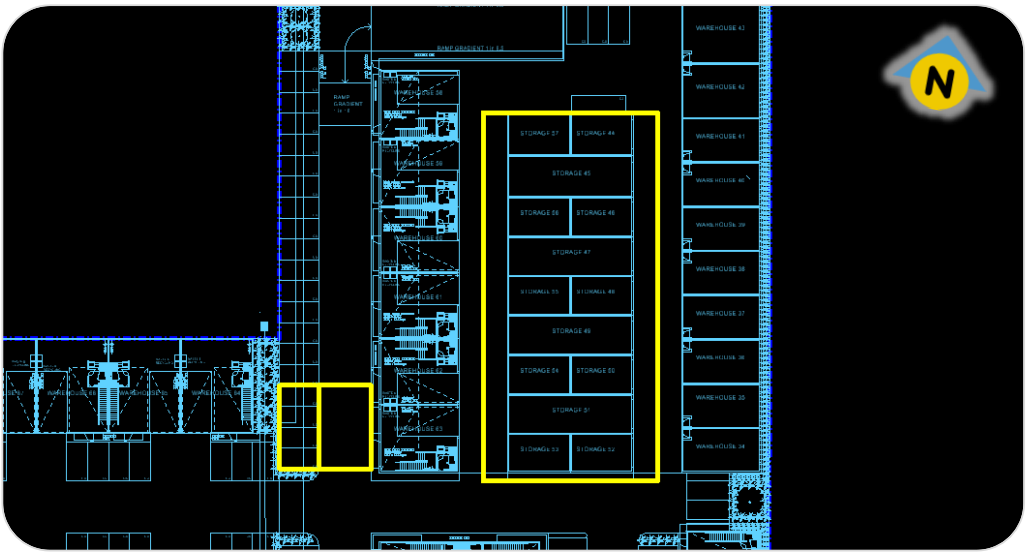


Figure 8 Store Site Area

4.2 Parking

4.2.1 Car Parking

A total of 137 car parking spaces are proposed within the site including one (1) DDA compliant spaces.

A total of four (4) spaces will be allocated to the store units, with the balance of 132 spaces allocated to the warehouse tenancies and one (1) DDA space allocated for communal use as detailed in Table 4.

Table 4 Proposed Car Parking Allocation

Tenancy Number	Allocation
Warehouse Tenancies	
W1-43 & W58-81	132 spaces
Store Tenancies	
S44-S57	4 spaces
Communal	
DDA space	1 space

4.2.2 Bicycle Parking

A total of 58 bicycle parking spaces are contemplated for the subject site with one (1) space provided to warehouse tenancies 1-38, and 58-82.

4.3 Access Arrangements

The site proposes one (1) accessway, allowing connection to internal accessways, as follows:

— Access A1: 7.0m wide crossover connecting to Frankston-Flinders Service Road to the west of the site.

This access arrangement is shown in Figure 9.

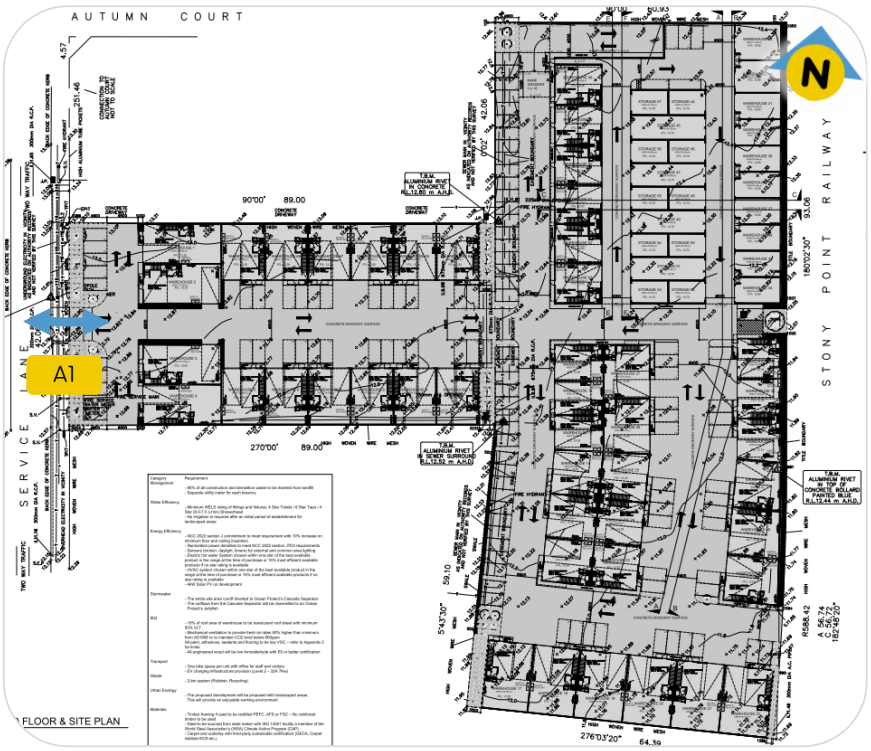


Figure 9 **Proposed Access Arrangements**

4.4 Loading Arrangements

Each warehouse tenancy will be provided with its own loading area within each tenancy.

Storage units are provided with shared parking provided proximate to units to accommodate any parking demands as well as loading and unloading activity.

Swept path analysis demonstrating vehicle access throughout the site, is shown in Appendix A.

5 Statutory Controls

The relevant traffic and transportation Statutory Controls are:

Particular Provisions

- Clause 52.06 - Car Parking
- Clause 52.29 - Land Adjacent the Principal Road Network
- Clause 52.34 - Bicycle Facilities
- Clause 65.01 - Approval of an Application or Plan (Loading Facilities).

5.1 Clause 52.06 - Car Parking

5.1.1 Purpose

The purpose of Clause 52.06 is:

- To ensure that car parking is provided in accordance with the Municipal Planning Strategy and Planning Policy Framework.
- To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.
- To support sustainable transport alternatives to the motor car.
- To promote the efficient use of car parking spaces through the consolidation of car parking facilities.
- To ensure that car parking does not adversely affect the amenity of the locality.
- To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

5.1.2 Provision and Design Requirements

To satisfy the above purpose, Clause 52.06 of the Mornington Peninsula Planning Scheme specifies rates for various land uses requirements relating to the provision and design of car parking as follows:

5.1.3 Clause 52.06-5: Car Parking Provision

Table 1 to Clause 52.06-05 of the Mornington Peninsula Planning Scheme specifies rates for various land uses, as follows:

Warehouse: **2 spaces to each premise**, plus **1.5 spaces to each 100 sqm** of net floor area.
Storage: **10% of site area.**

Application of the above rate reveals a requirement for the following:

Warehouse: 228 spaces.
Storage: 111 sqm set aside for car parking.

5.1.4 Proposed Provision

It is planned to provide **137 spaces** on site, comprising 132 spaces for the warehouse uses and 118 sqm in the form of four (4) spaces allocated to store tenancies.

The calculation of area set aside for parking for the store tenancies is as follows:

- 4 x 2.6m wide x 4.9m long car spaces and the directly adjacent 6.5m wide aisle opposite W61-W63.

The provision of 118 sqm set aside for parking and access for the store tenancies meets the statutory requirement. The provision of car parking for the warehouse component is below the statutory requirement.

The warehouse component of the proposal therefore seeks approval to reduce the number of parking spaces required under Clause 52.06-5.

5.1.5 Application Requirements and Decision Guidelines to Reduce Car Parking Requirement

An application to reduce (including reduce to zero) the number of car parking spaces required under Clause 52.06-5 must be accompanied by a Car Parking Demand Assessment.

The Car Parking Demand Assessment must assess the car parking demand likely to be generated by the proposal and must also address the following matters, to the satisfaction of the responsible authority.

- The likelihood of multi-purpose trips within the locality which are likely to be combined with a trip to the land in connection with the proposed use.
- The variation of car parking demand likely to be generated by the proposed use over time.
- The short-stay and long-stay car parking demand likely to be generated by the proposed use.
- The availability of public transport in the locality of the land.
- The convenience of pedestrian and cyclist access to the land.
- The provision of bicycle parking and end of trip facilities for cyclists in the locality of the land.
- The anticipated car ownership rates of likely or proposed visitors to or occupants (residents or employees) of the land.
- Any empirical assessment or case study.

Before granting a permit to reduce the number of spaces, the responsible authority must consider the following, as appropriate:

- The Car Parking Demand Assessment.
- Any relevant local planning policy or incorporated plans.
- The availability of alternative car parking in the locality of the land, including:
  - Efficiencies gained from the consolidation of shared car parking spaces.
  - Public car parks intended to serve the land.
  - On-street parking in non-residential zones.
  - Streets in residential zones specifically managed for non-residential parking.
- On-street parking in residential zones in the locality of the land that is intended to be for residential use.
- The practicality of providing car parking on the site, particularly for lots of less than 300 square metres.
- Any adverse economic impact a shortfall of parking may have on the economic viability of any nearby activity centre.
- The future growth and development of any nearby activity centre
- Any car parking deficiency associated with the existing use of the land.
- Any credit that should be allowed for car parking spaces provided on common land or by a Special Charge Scheme or cash-in-lieu payment.
- Local traffic management in the locality of the land.
- The impact of fewer car parking spaces on local amenity, including pedestrian amenity and the amenity of nearby residential areas.
- The need to create safe, functional and attractive parking areas.
- Access to or provision of alternative transport modes to and from the land.
- The equity of reducing the car parking requirement having regard to any historic contributions by existing businesses.
- The character of the surrounding area and whether reducing the car parking provision would result in a quality/positive urban design outcome.

- Any other matter specified in a schedule to the Parking Overlay.
- Any other relevant consideration.

Considering the foregoing, we have undertaken the following car parking demand assessment which outlines our expectations of likely parking demand.

5.1.6 Car Park Demand Assessment

Case study data collated by other traffic engineering consultants of multi-unit warehouse sites which exhibit similar characteristics to the proposal in nearby Tyabb, are presented in Table 5.

Table 5 Case Study Data Summary - Multi Unit Warehouse Developments

Site	Floor Area (NFA)	Peak Parking Demand	Peak Parking Provision Rate
2 George Avenue, Tyabb	978 sqm (6 tenancies)	12 spaces	1.23 spaces per 100 sqm
1-29 Speed Circuit, Tyabb	5,051 sqm (27 tenancies) [1]	50 spaces	0.99 spaces per 100 sqm

[1]: 29 tenancies onsite, however 2 tenancies excluded on account of being vacant.

As shown by the results of the local case study sites in Table 5, it is evident that the statutory car parking demand rate for multi-unit warehouse uses is conservative and that lower car parking demands are being generated by multi-unit warehouse sites.

The case study data reveals that the proposed development is likely to generate a parking demand rate of **0.99 to 1.23 spaces per 100 sqm.**

The proposal allocates 132 spaces to service the warehouse tenancies (8,885 sqm GFA across 68 tenancies) and therefore car parking is provided at a rate of **1.49 spaces per 100 sqm.**

This parking provision rate exceeds the empirical data range provided by the case study sites.

5.1.7 Conclusion - Car Parking Provision

We can conclude that an adequate number of spaces are provided to cater for the projected demand.

Accordingly, the development proposition satisfies the purpose of Clause 52.06, specifically:

- To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.

5.1.8 Clause 52.06 - 9: Design Standard for Car Parking

We have assessed the proposed car parking design and access arrangements against the requirements of Clause 52.06-9 of the Mornington Peninsula Planning Scheme. Our findings are as follows:

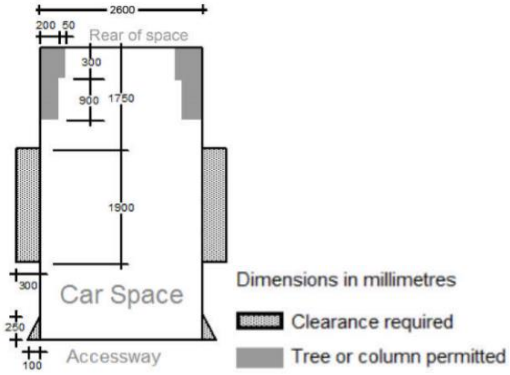
5.1.8.1 Design Standard 1 - Accessways

	Requirements	Design Response	Status
	Accessways Must:		
1	Be at least 3 metres wide.	Accessway is at least 3 metres wide.	**Comply**
2	Have an internal radius of at least 4 metres at changes of direction or intersection or be at least 4.2 metres wide	The accessway is at least 4.2m at changes of direction.	**Comply**
3	Allow vehicles parked in the last space of a dead-end accessway in public car parks to exit in a forward direction with one manoeuvre.	One manoeuvre egress is achievable within publicly accessible areas.	**Comply**
4	Provide at least 2.1 metres headroom beneath overhead obstructions, calculated for a vehicle with a wheel base of 2.8 metres.	No overhead obstructions.	**N/A**
5	If the accessway serves four or more car spaces or connects to a road in a Road Zone, the accessway must be designed so that cars can exit the site in a forward direction	The accessways are designed so that the cars can exit the site in a forward direction.	**Comply**
6	Provide a passing area at the entrance at least 6.1 metres wide and 7 metres long if the accessway serves ten or more car parking spaces and is either more than 50 metres long or connects to a road in a Transport Zone 2 or 3.	Accessway width at the site entry point is configured with a 6.4m width.	**Comply**
7	Have a corner splay or area at least 50 percent clear of visual obstructions extending at least 2 metres along the frontage road from the edge of an exit lane and 2.5 metres along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road. The area clear of visual obstructions may include an adjacent entry or exit lane where more than one lane is provided, or adjacent landscaped areas, provided the landscaping in those areas is less than 900mm in height.	It is proposed to keep structures and landscaping within the sight splay areas below 900mm in height.	**Comply**
8	If an accessway to four or more car parking spaces is from land in a Transport Zone 2 or 3, the access to the car spaces must be at least 6 metres from the road carriageway.	Access is at least 6 metres from the road carriageway.	**N/A**
9	If entry to the car spaces is from a road, the width of the road accessway may include the road.	N/A	**N/A**

5.1.8.2 Design Standard 2 - Car Parking Spaces

	Requirements	Design Response	Status
1	Car parking spaces and accessways must have the minimum dimensions in Table 2 of Clause 52.06-5	Car parking spaces are designed with dimensions in accordance with Table 2.	**Comply**
2	A wall, fence, column, tree, tree guard or any other structure that abuts a car space must not encroach into the area marked 'clearance required' on Diagram 1 other than: A column, tree or tree guard, which may project into a space if it is within the area marked 'tree or column permitted' on Diagram 1 of the design standard. A structure, which may project into the space if it is at least 2.1 metres above the space.	Adequate clearance to adjacent obstructions is provided in accordance with Diagram 1.	**Comply**
3	Car spaces in garages or carports must be at least 6 metres long and 3.5 metres wide for a single space and 5.5 metres wide for a double space measured inside the garage or carport.	No garages proposed.	**N/A**
4	Where parking spaces are provided in tandem (one space behind another) an additional 500mm in length must be provided between each space.	No tandem car parking spaces are proposed.	**N/A**
5	Where two or more car parking spaces are provided for a dwelling, at least one space must be under cover	Not a residential use.	**N/A**
6	Disabled car parking spaces must be designed in accordance with AS 2890.6-2009 (disabled) and the Building Code of Australia. Disabled car parking spaces may encroach into an accessway width specified in Table 2 by 500mm	Disabled car parking spaces are designed in accordance with AS 2890.6-2009 (disabled) and the Building Code of Australia.	**Comply**

Angle of car parking spaces to access way	Accessway width	Car space width	Car space length
Parallel	3.6 m	2.3 m	6.7 m
45°	3.5 m	2.6 m	4.9 m
60°	4.9 m	2.6 m	4.9 m
90°	6.4 m	2.6 m	4.9 m
	5.8 m	2.8 m	4.9 m
	5.2 m	3.0 m	4.9 m
	4.8 m	3.2 m	4.9 m



5.1.8.3 Design Standard 3 - Gradients

	Requirements	Design Response	Status
1	Accessway grades must not be steeper than 1:10 (10 per cent) within 5 metres of the frontage to ensure safety for pedestrians and vehicles. The design must have regard to the wheelbase of the vehicle being designed for; pedestrian and vehicular traffic volumes; the nature of the car park; and the slope and configuration of the vehicle crossover at the site frontage. This does not apply to accessways serving three dwellings or less.	Minimal grading below threshold proposed at site access locations.	**Comply**
2	Ramps (except within 5 metres of the frontage) must have the maximum grades as outlined in Table 3 and be designed for vehicles travelling in a forward direction.	Ramp grades are designed to accommodate small rigid vehicles with maximum 1:12 transition grades for 4m, and maximum 1:6.5m main ramp sections.	**Comply**
3	Where the difference in grade between two sections of ramp or floor is greater that 1:8 (12.5 per cent) for a summit grade change, or greater than 1:6.7 (15 per cent) for a sag grade change, the ramp must include a transition section of at least 2 metres to prevent vehicles scraping or bottoming	Ramp grades are designed to accommodate small rigid vehicles with maximum 1:12 transition grades for 4m, and maximum 1:6.5m main ramp sections.	**Comply**
4	Plans must include an assessment of grade changes of greater than 1:5.6 (18 per cent) or less than 3 metres apart for clearances, to the satisfaction of the responsible authority.	No grade changes greater than 18 per cent.	**N/A**

Type of car park	Length of ramp	Maximum grade
Public car parks	20 metres or less	1:5 (20%)
	longer than 20 metres	1:6 (16.7%)
Private or residential car parks	20 metres or less	1:4 (25%)
	longer than 20 metres	1:5 (20%)

5.1.8.4 Conclusion - Car Park Design

The proposed car park and accessways have been assessed and determined to have satisfied the relevant design guidelines contained within Clause 52.06, AS2890.1:2004, AS2890.2:2018 and AS2890.6:2009.

Accordingly, the proposal satisfies the purpose of Clause 52.06, specifically:

- To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

5.2 Clause 52.29 - Land Adjacent to the Principal Road Network

5.2.1 Purpose

The purpose of Clause 52.29 is to:

- Ensure appropriate access to the Principal Road Network or land planned to form part of the Principal Road Network; and
- Ensure appropriate subdivision of land adjacent to the Principal Road Network or land planned to form part of the Principal Road Network.

5.2.2 Permit Requirement

A permit is required to:

- Create or alter access to:
  - A road in a Transport Zone 2;
  - Land in a Public Acquisition Overlay if a transport manager (other than a municipal council) is the acquiring authority and the acquisition is for the purpose of a road.
- Subdivide land adjacent to:
  - A road in a Transport Zone 2;
  - Land in a Public Acquisition Overlay if a transport manager (other than a municipal council) is the acquiring authority and the acquisition is for the purpose of a road

In response to the above, it is noted that:

- The proposal seeks to alter access to Frankston-Flinders Road (Transport Zone 2).

Specifically, the proposal seeks to intensify the volume of traffic utilising the existing crossovers to the subject site.

A permit under Clause 52.29 is therefore required.

5.2.3 Decision Guidelines

Before deciding on an application, in addition to the decision guideline in Clause 65, the responsible authority must consider:

- The Municipal Planning Strategy and the Planning Policy Framework;
- The view of the relevant road authority;
- The effect of the proposal on the operation of the road and on public safety; and
- Any policy made by the relevant road authority pursuant to Schedule 2, Clause 3 of the Road Management Act 2004 regarding access between a controlled access road and adjacent land.

5.2.4 Response to Decision Guidelines

5.2.4.1 Effect of the Proposal on the Operation of the Road

As described in Section 6, the proposal will generate in the order of 87 vehicle movements during a peak period.

The resulting distribution of volumes are low in traffic engineering terms and unlikely to have any detrimental impacts to the operation of the surrounding road network.

5.2.4.2 Effect of the Proposal on Public Safety

As part of the development, the proposal contemplates the use one (1) accessway connecting to Frankston-Flinders Road.

This design outcome will allow the access to conform to the relevant design guidelines set out in Clause 52.06, specifically:

- If the accessway serves four or more car spaces or connects to a road in a Transport Zone 2 or Transport Zone 3, the accessway must be designed so that cars can exit the site in a forward direction.
  - Design Response: The accessway is designed so that cars can exit the site in a forward direction.

- Have a corner splay area at least 50 percent clear of visual obstructions extending at least 2 metres along the frontage road from the edge of an exit lane and 2.5 metres along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road.
  - Design Response: Adequate pedestrian sight splays are provided on each side of the egress lane, should a future footpath be installed. Landscaping and structures within the pedestrian sight triangle areas is to remain below 900mm in height.

- If an accessway to four or more car parking spaces is from land in a Transport Zone 2 or Transport Zone 3, the access to the car spaces must be at least 6 metres from the road carriageway.
  - Design Response: Access to the car spaces is at least 6 metres from the road carriageway.

5.3 Clause 52.34 - Bicycle Facilities

5.3.1 Purpose

The purpose of Clause 52.34 is to encourage cycling as a mode of transport, and provide secure, accessible and convenient bicycle parking spaces and associated shower and change facilities.

5.3.2 Provision Requirements - Clause 52.34.3

To satisfy the above purpose, Clause 52.34-3 of the Mornington Peninsula Planning Scheme specifies the bicycle parking provision requirements for a variety of different uses within Table 1.

Rates applicable to the proposed use are:

Industry other than specified in this table:	Staff:	1 to each 1,000 sqm of net floor area;
	Visitor:	None.

It is noted none of the warehouse or office tenancies exceed 320 sqm in size. Application of the above, therefore equates to the following parking requirements:

Industry other than specified in this table:	Staff:	Nil
	Visitor:	Nil

Clause 52.34 requires that if five (5) or more employee bicycle spaces are required, one (1) shower should be provided for the first five (5) employee bicycle spaces, plus one (1) to each 10 employee bicycle spaces thereafter.

Based on this rate, the site will not generate a requirement for shower / change room facilities.

5.3.3 Adeqaucy of Provision

The provision of 58 bicycle parking spaces satisfies the requirements of Clause 52.34-3.

This provision of bicycle parking spaces will contribute to encouraging active transport modes of travel to / from the subject site.

5.3.4 Design Requirements

Bicycle spaces should:

- Provide a space for a bicycle of minimum dimensions of 1.7 metres in length, 1.2 metres in height and 0.7 metres in width at the handlebars.
- Be located to allow a bicycle to be ridden to within 30 metres of the bicycle parking space.
- Be located to provide convenient access from surrounding bicycle routes and main building entrances.
- Not interfere with reasonable access to doorways, loading areas, access covers, furniture, services and infrastructure.
- Not cause a hazard.
- Be adequately lit during periods of use.

5.3.5 Decision Guidelines

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

- Whether the proposed number, location and design of bicycle facilities meets the purpose of this clause.
- The location of the proposed land use and the distance a cyclist would need to travel to reach the land.
- The users of the land and their opportunities for bicycle travel.
- Whether showers and change rooms provided on the land for users other than cyclists are available to cyclists.
- The opportunities for sharing of bicycle facilities by multiple uses, either because of variation of bicycle parking demand over time or because of efficiencies gained from the consolidation of shared bicycle facilities.
- Australian Standard AS 2890.3 2015 Parking facilities Part 3: Bicycle parking facilities.
- Any relevant bicycle parking strategy or equivalent.

5.3.6 Proposed Design

Bicycle spaces are proposed as single sided wall mounted racks accommodating ground level parking each provided within a 0.5m x 1.7m envelope accessed from a 1.5m aisle.

Each set of bicycle racks meets the requirements of Clause 52.34.

5.3.7 Conclusion - Bicycle Parking

We can conclude that bicycle parking provided as part of this development satisfies the purpose of Clause 52.34, specifically:

- To encourage cycling as a mode of transport, and provide secure, accessible and convenient bicycle parking spaces.

5.4 Clause 65.01 - Loading Considerations

5.4.1 Loading Requirements and Objectives

To address the adequacy of loading for new developments, the Mornington Peninsula Planning Scheme specifies the following:

- Clause 65.01 - The responsible authority must consider, as appropriate, the adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.

5.4.2 Adequacy of Proposed Loading Facilities

In response to the above, we note that:

- Sufficient area is provided on-site to accommodate small vans (B99) and small rigid vehicles (6.4m trucks) to all warehouse tenancies.

The swept paths provided as Appendix A illustrates sufficient manoeuvrability for the above design vehicles is provided throughout the site allowing forward in and forward out movements.

5.4.3 Conclusion - Loading Arrangements

The proposed loading arrangements have been assessed and determined to have satisfied the relevant design guidelines / principles contained within Clause 65.01 and AS2890.2:2018.

Accordingly, it is considered that the proposal:

- Provides adequate vehicle loading and unloading facilities, which will not result in associated amenity, traffic flow and road safety impacts.

6 Traffic Considerations

6.1 Traffic Generation

Warehouse

Traffic survey data from the case study sites held by **IMPACT**® reveals that multi-unit warehouse uses generate their peak AM and PM traffic volumes at the following rates:

- AM Peak 0.88 movements per 100 sqm
  - 60% of vehicle movements being inbound and 40% of movements being outbound; and
- PM Peak 0.87 movements per 100 sqm
  - 40% of vehicle movements being inbound and 60% of movements being outbound

Conservatively assuming a design rate of **0.9 movements per 100 sqm** for both AM and PM peak periods, equates to the following anticipated traffic generation for the proposed development with a gross floor area of 8,885 sqm (total onsite building GFA):

- AM Peak: 80 vehicle movements during the AM peak, comprising **48 inbound vehicle movements and 32 outbound vehicle movements**; and
- PM Peak: 80 vehicle movements during the PM peak, comprising **32 inbound vehicle movements and 48 outbound vehicle movements**.

Store

Traffic survey data held by **IMPACT**® reveals that store tenancies generate their peak AM and PM traffic volumes at the following rates:

- AM Peak 1.01 movements per 100 sqm
  - 63% of vehicle movements being inbound and 37% of movements being outbound; and
- PM Peak 0.88 movements per 100 sqm
  - 15% of vehicle movements being inbound and 85% of movements being outbound

The above rates equate to the following anticipated traffic generation for the proposed development with a gross floor area of 702 sqm (total onsite building GFA):

- AM Peak: 7 vehicle movements during the AM peak, comprising **4 inbound vehicle movements and 3 outbound vehicle movements**; and
- PM Peak: 6 vehicle movements during the PM peak, comprising **1 inbound vehicle movement and 5 outbound vehicle movements**.

Total

The site is expected to generate the following vehicle movements during peak hours:

- AM Peak: 87 vehicle movements during the AM peak, comprising **52 inbound vehicle movements and 35 outbound vehicle movements**; and
- PM Peak: 86 vehicle movements during the PM peak, comprising **33 inbound vehicle movements and 53 outbound vehicle movements**.

6.2 Traffic Distribution

6.2.1 Post Development Split

For the purpose of this assessment, it is anticipated that traffic arriving / departing the subject site will be distributed in a pattern similar to the existing distribution of traffic as outlined in Section 3.5.1, summarised as follows:

Subject Site

- AM Peak:
  - To / from the north via Frankston-Flinders Road: 60%
  - To / from the south via Frankston-Flinders Road: 40%
- PM Peak:
  - To / from the north via Frankston-Flinders Road: 50%
  - To / from the south via Frankston-Flinders Road: 50%

6.2.2 Post Development Traffic Generation

Based on the foregoing traffic generation and distribution assumptions, overleaf provides a summary of the projected development traffic for the AM and PM peak periods in Figure 10 to Figure 13.

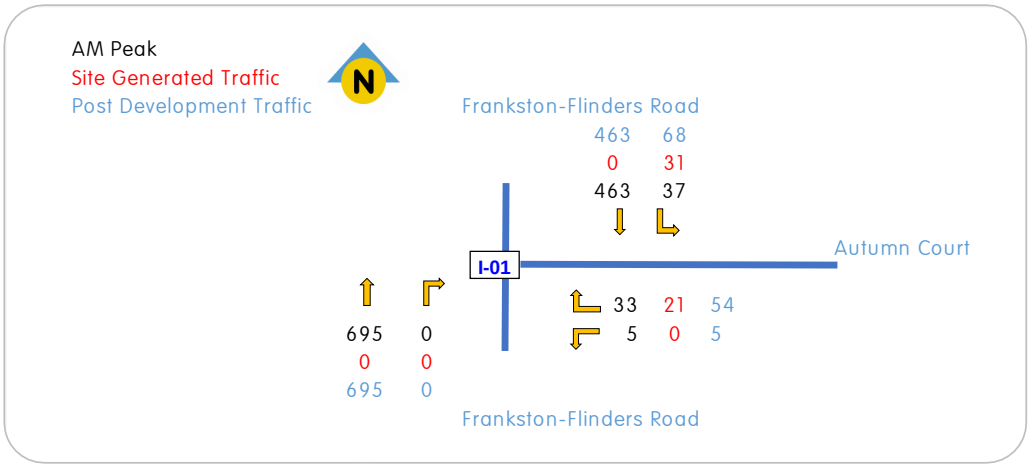


Figure 10 Post Development Traffic Generation (Frankston Flinders Road / Autumn Court) - AM Peak

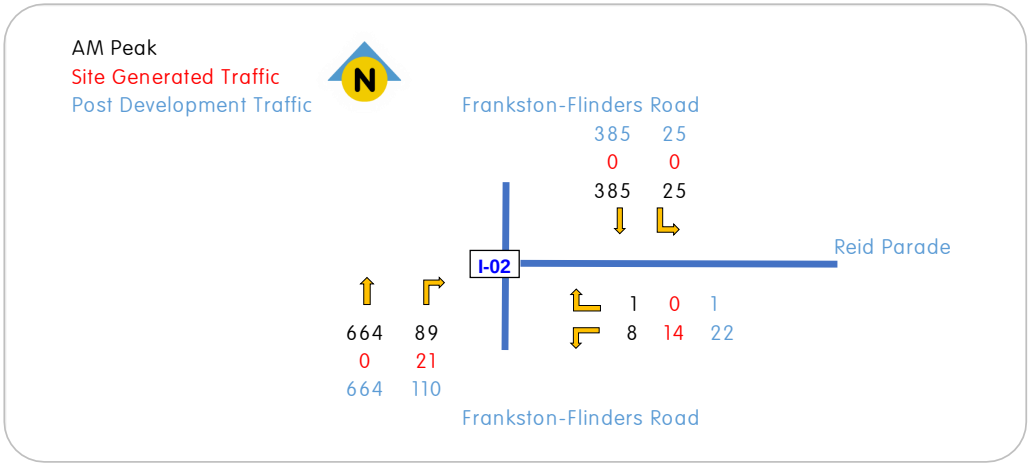


Figure 11 **Post Development Traffic Generation (Frankston Flinders Road / Reid Parade) - AM Peak**

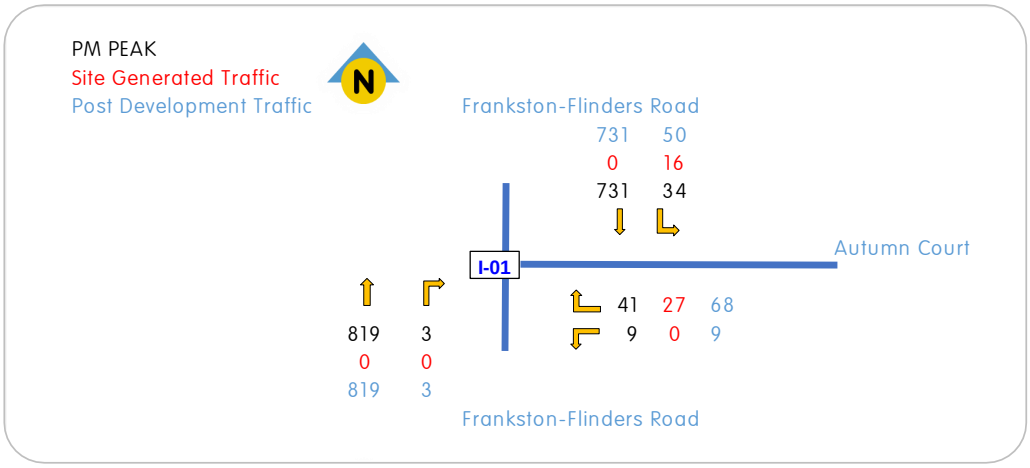


Figure 12 **Post Development Traffic Generation (Frankston Flinders Road / Autumn Court) - PM Peak**

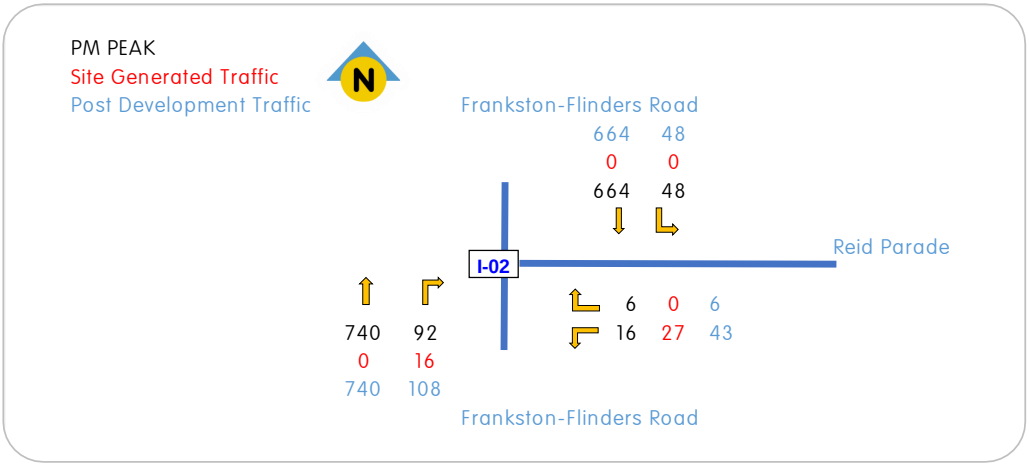


Figure 13 **Post Development Traffic Generation (Frankston-Flinders Road / Reid Parade) - PM Peak**

6.2.3 Intersection Capacity - SIDRA analysis

The post development operation of the nearby intersections (Frankston Flinders Road / Autumn Court and Frankston Flinders Road / Reid Parade) have been analysed using SIDRA Intersection 9.1.

A summary of the intersection analysis is presented in Table 6 and Table 7, including comparison with the existing intersection operation.

Table 6 **Frankston Flinders Road / Autumn Court SIDRA Summary**

Peak Time	Approach	Degree of Saturation		Average Delay (s)		95th% Queue (m)	
		Existing	Post Dev.	Existing	Post Dev.	Existing	Post Dev.
AM Peak	Frankston-Flinders Road (North)	0.25	0.25	0	1	1	0
	Frankston-Flinders Road (South)	0.38	0.38	0	0	0	1
	Autumn Court (East)	0.10	0.16	14	14	3	4
PM Peak	Frankston-Flinders Road (North)	0.40	0.40	1	1	0	0
	Frankston-Flinders Road (South)	0.45	0.45	0	0	1	1
	Autumn Court (East)	0.24	0.39	25	30	6	11

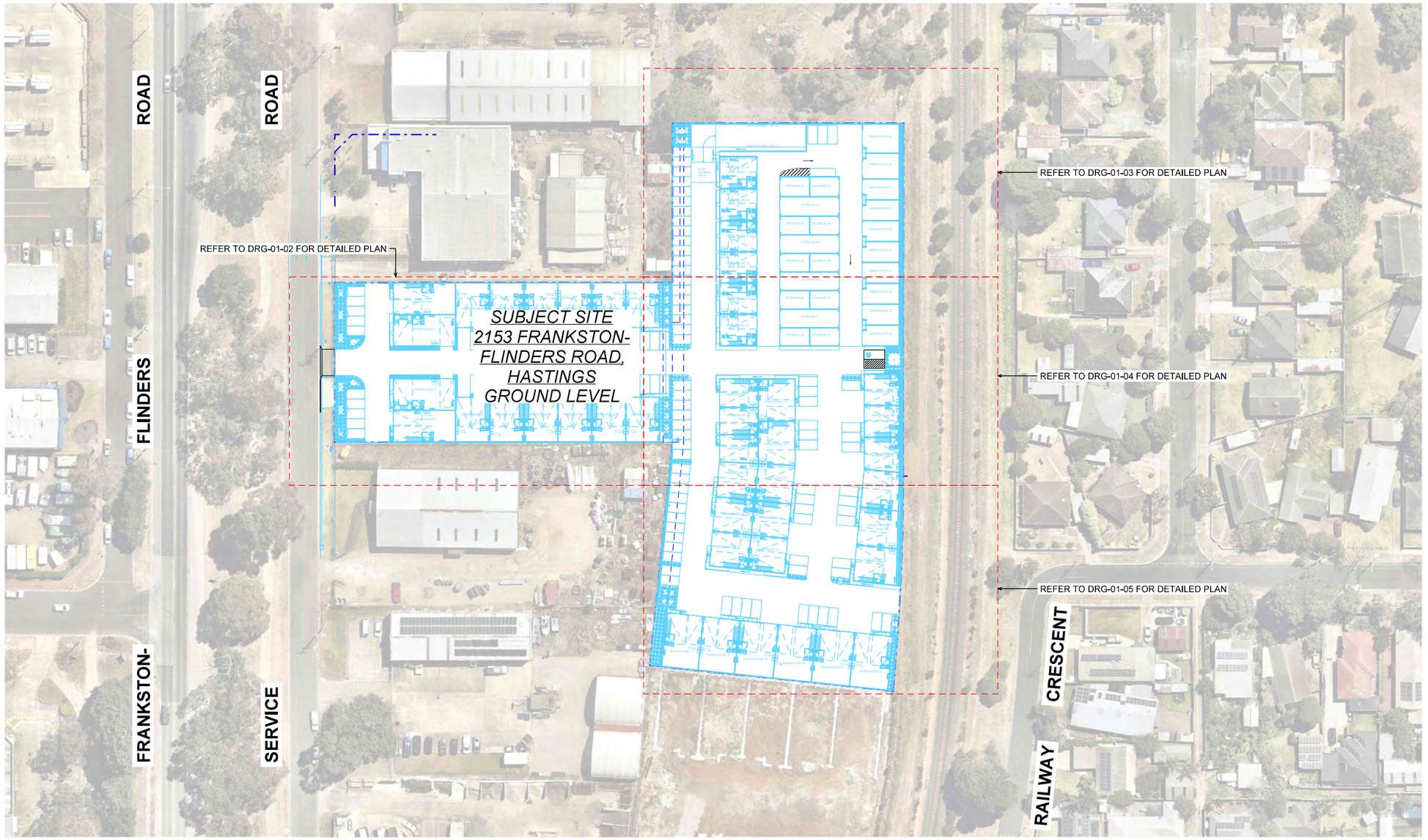
Table 7 **Frankston-Flinders Road / Reid Parade SIDRA Summary**

Peak Time	Approach	Degree of Saturation		Average Delay (s)		95th% Queue (m)	
		Existing	Post Dev.	Existing	Post Dev.	Existing	Post Dev.
AM Peak	Frankston-Flinders Road (North)	0.22	0.22	1	1	0	0
	Frankston-Flinders Road (South)	0.44	0.46	2	2	9	12
	Reid Parade (East)	0.01	0.03	7	6	0	1
PM Peak	Frankston-Flinders Road (North)	0.06	0.39	1	1	0	0
	Frankston-Flinders Road (South)	0.53	0.55	3	4	21	26
	Reid Parade (East)	0.39	0.10	13	10	1	2

The analysis reveals that Frankston Flinders Road / Autumn Court and Frankston-Flinders Road / Reid Parade intersections will continue to operate with 'excellent' degrees of saturation during both the AM and PM peak periods, following post development of the site.

APPENDIX A
Swept Path Analysis

- Design Vehicle -
  - 6.4m Small Rigid Vehicle
  - B99 Passenger Vehicle / Van



GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. DECLARED ROADS - FRANKSTON-FLINDERS ROAD (SPEED ZONE 70KM/H).
   - SERVICE ROAD (SPEED ZONE 40KM/H).
3. BASE INFORMATION FROM NEARMAP AERIAL PHOTOGRAPHY DATED 27.02.2024 AND E.J. Grech & Associates 1735_TP1A.dwg DATED 16.05.2024

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Project
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2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SITE LAYOUT PLAN
GROUND LEVEL

Status
PRELIMINARY

Drawing Number
IMP2403028 - DRG-01-01

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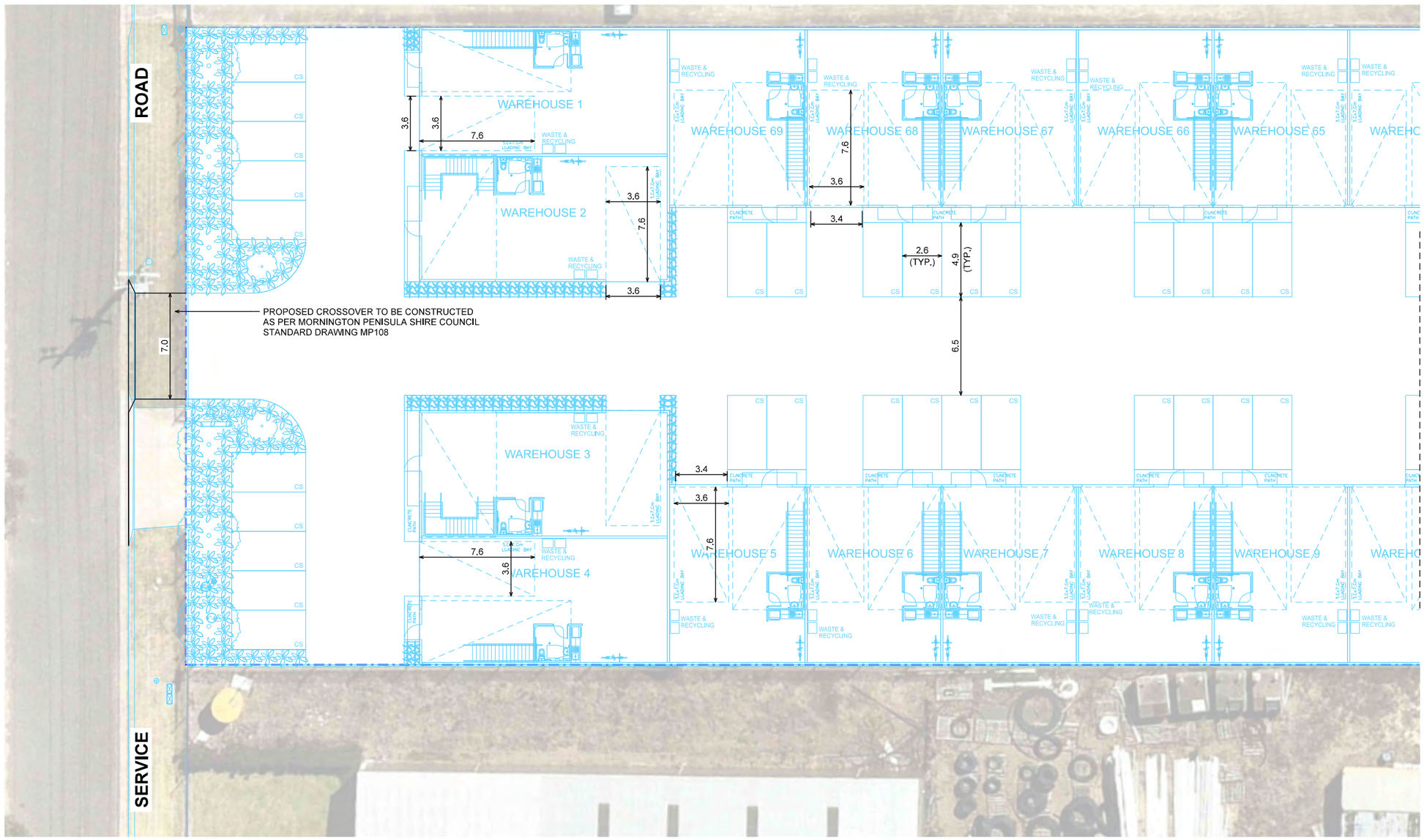

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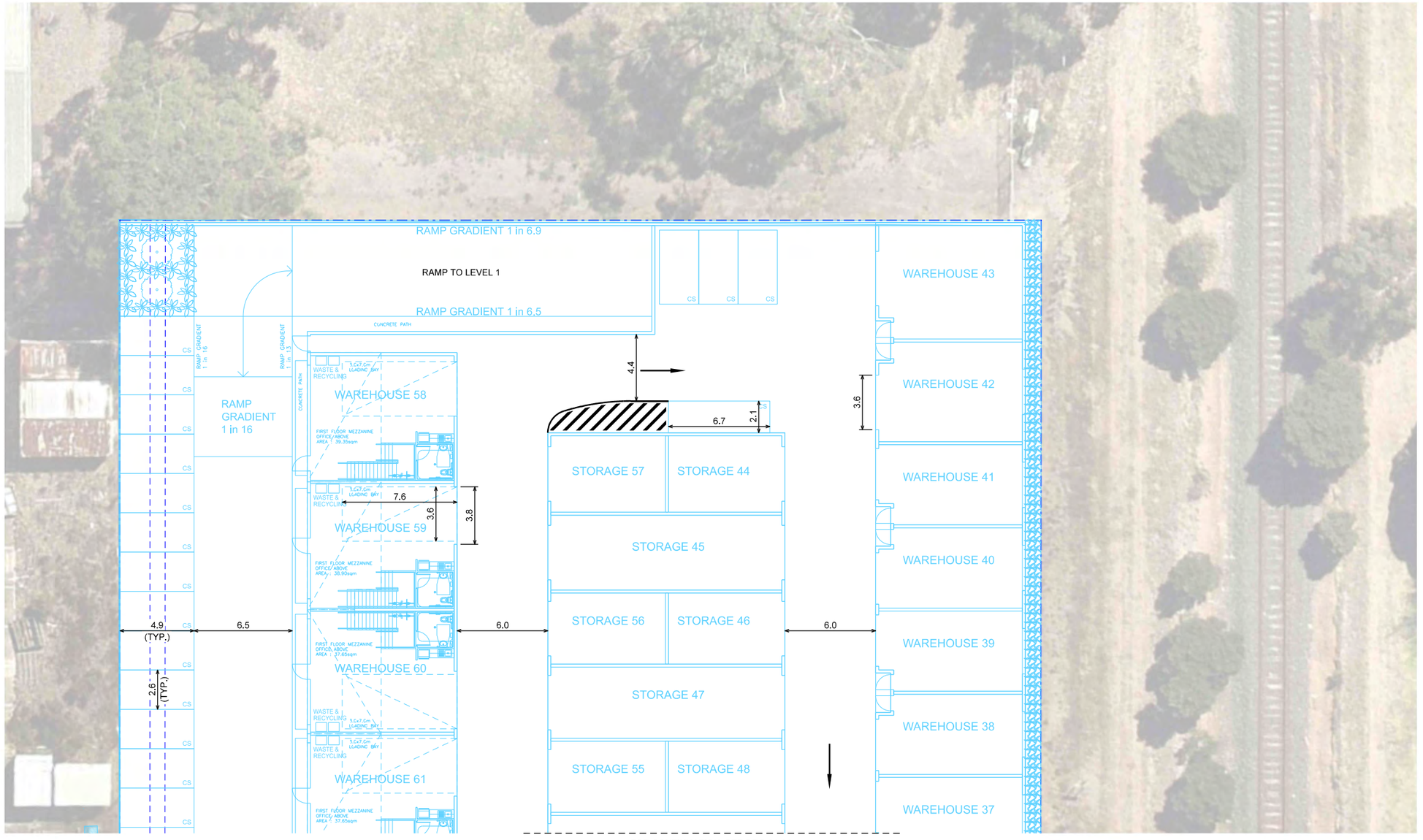

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SITE LAYOUT PLAN
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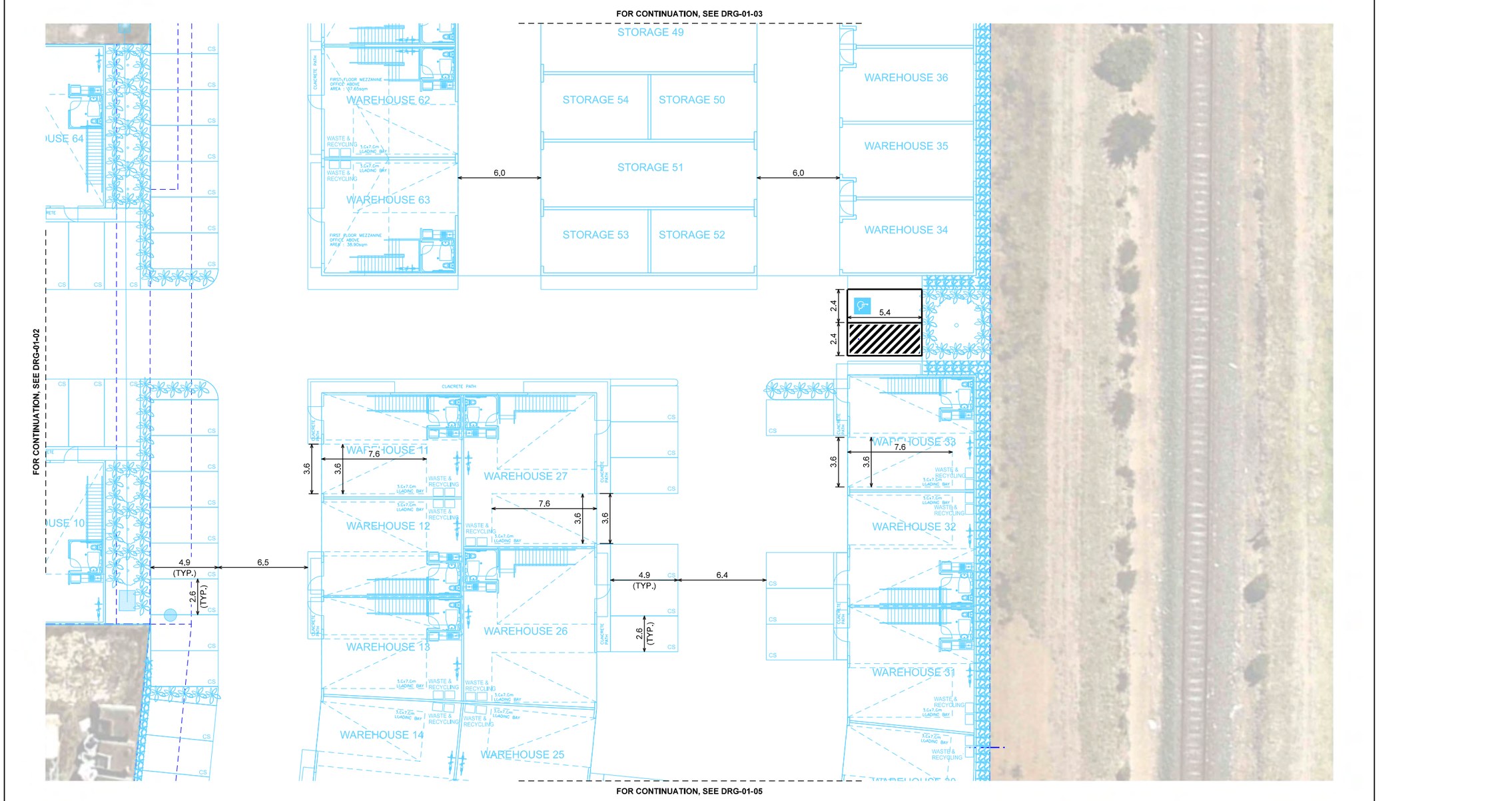

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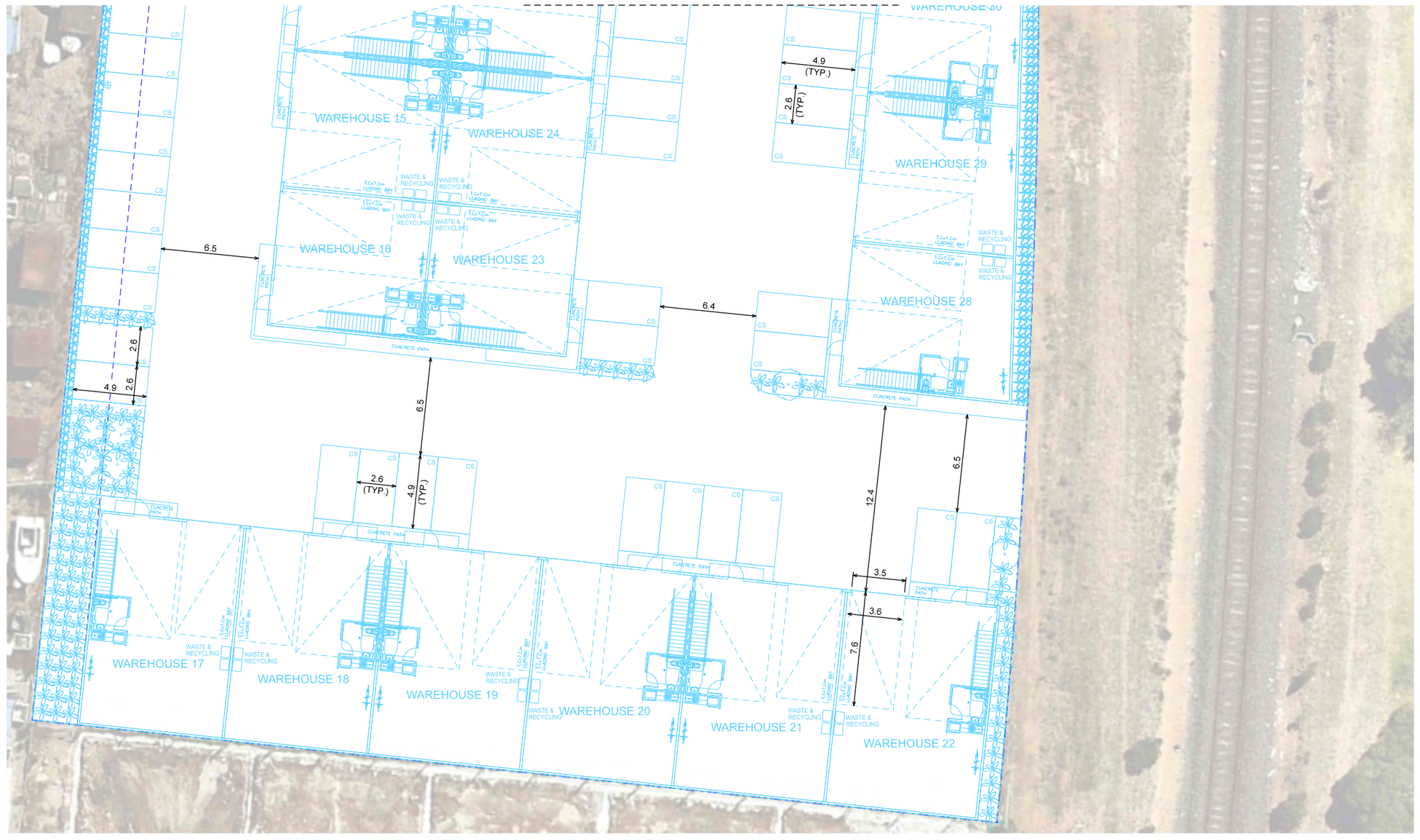

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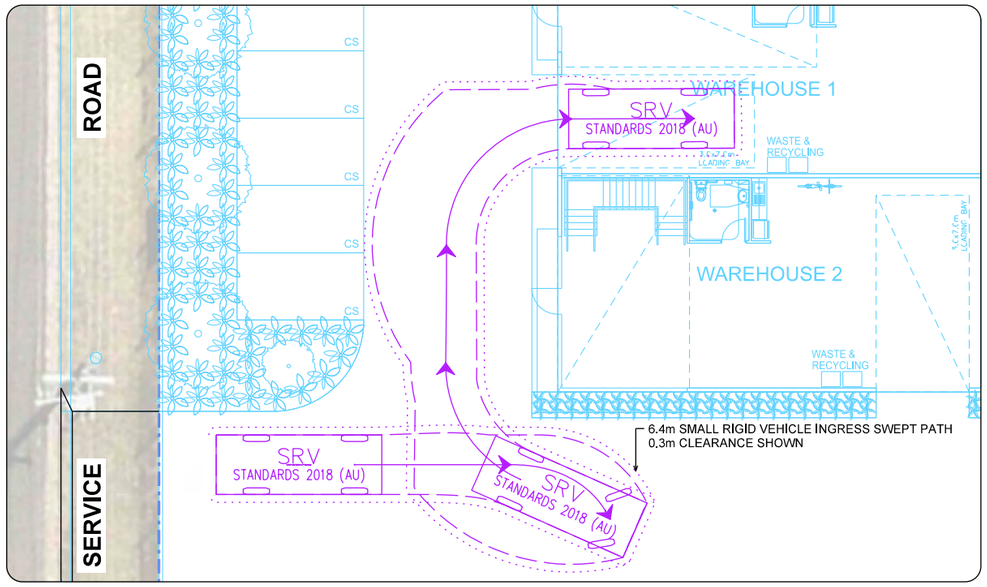

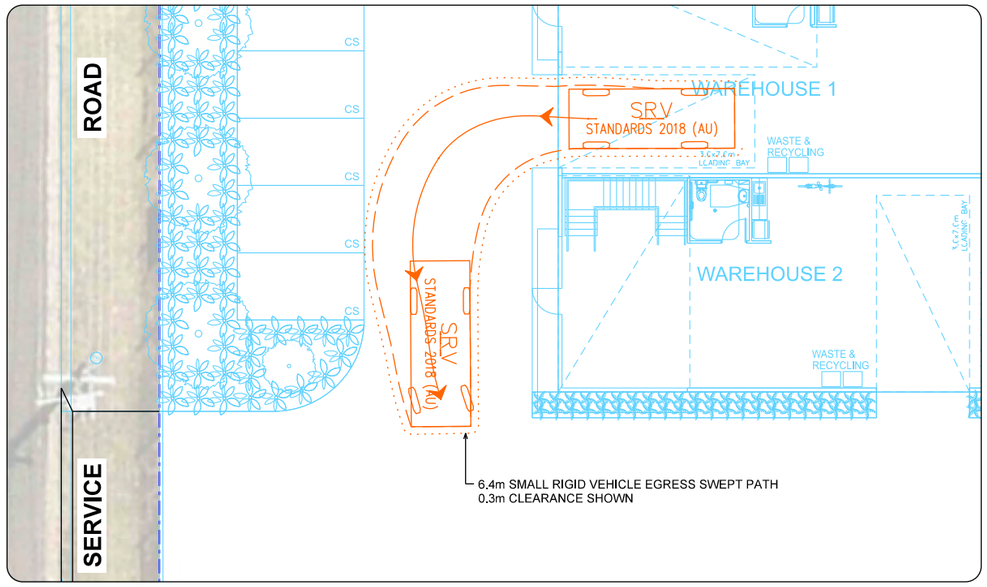

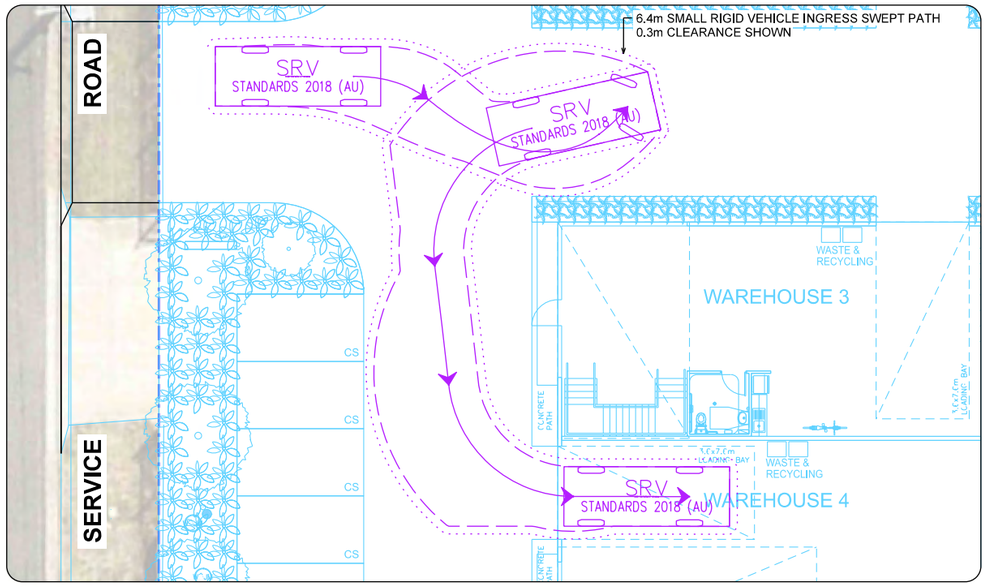

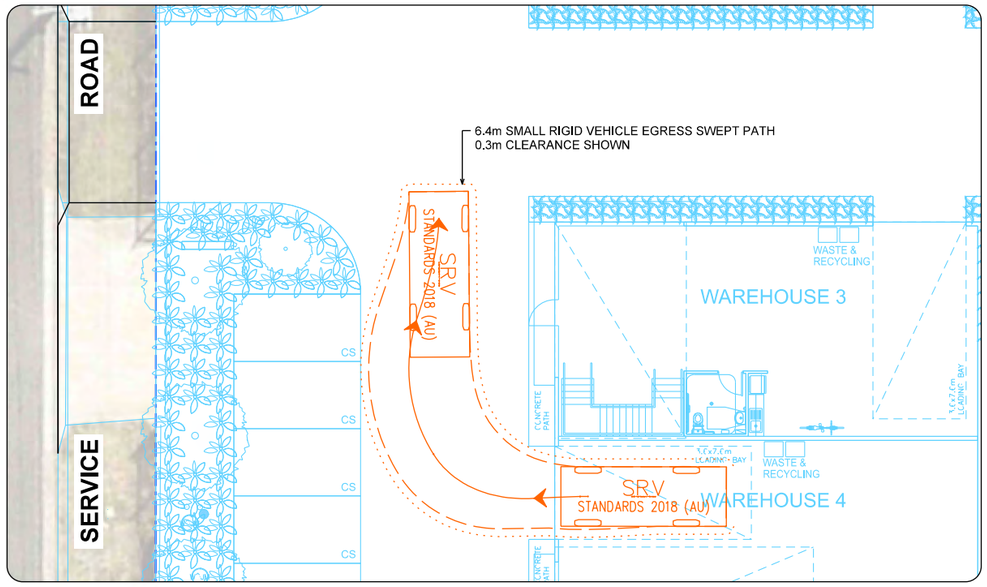

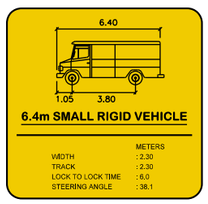

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MORNINGTON PENINSULA SHIRE

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TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

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Revision
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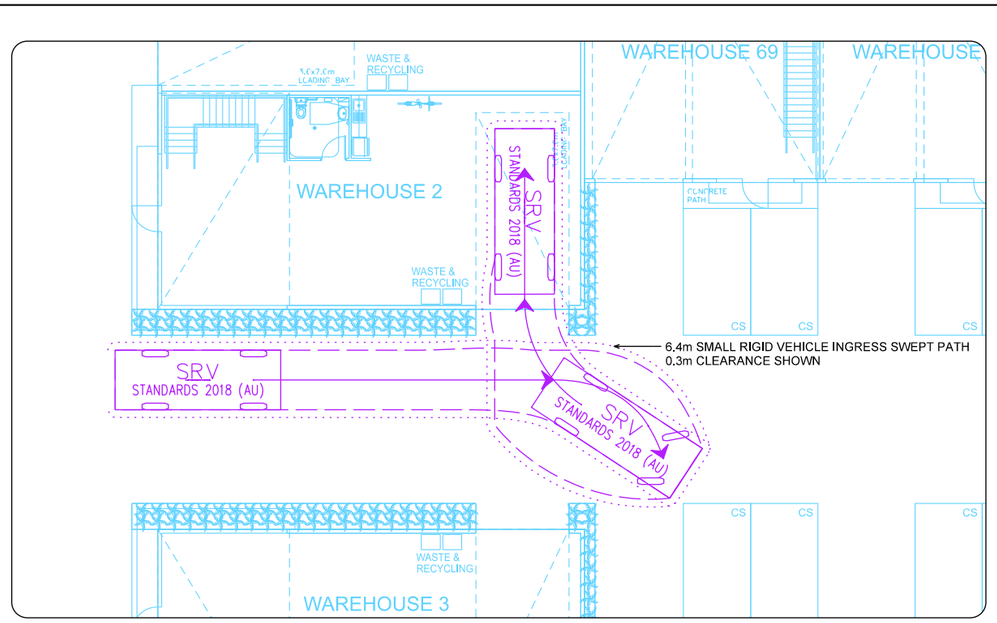
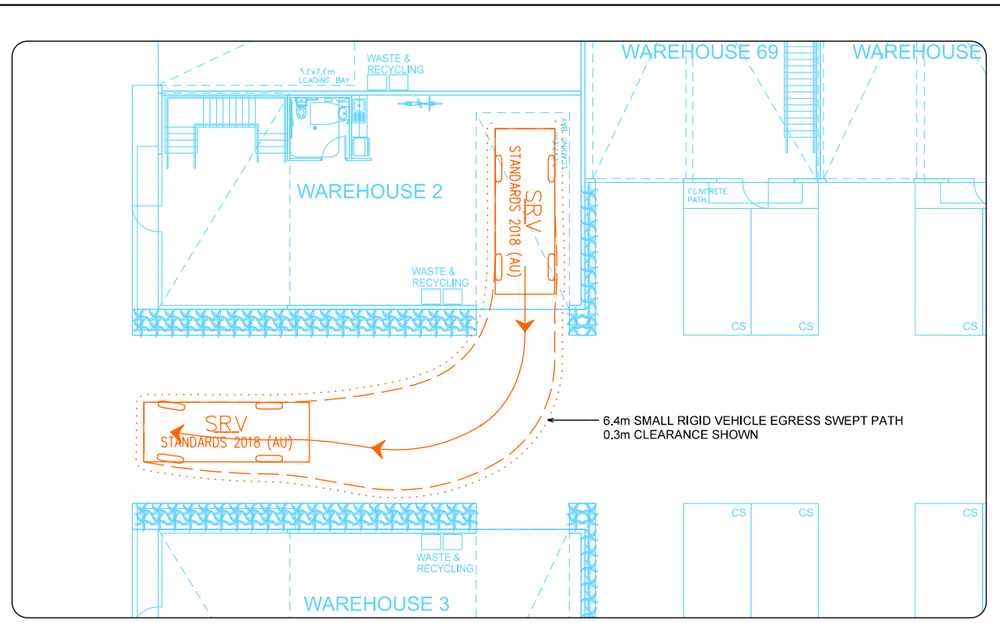
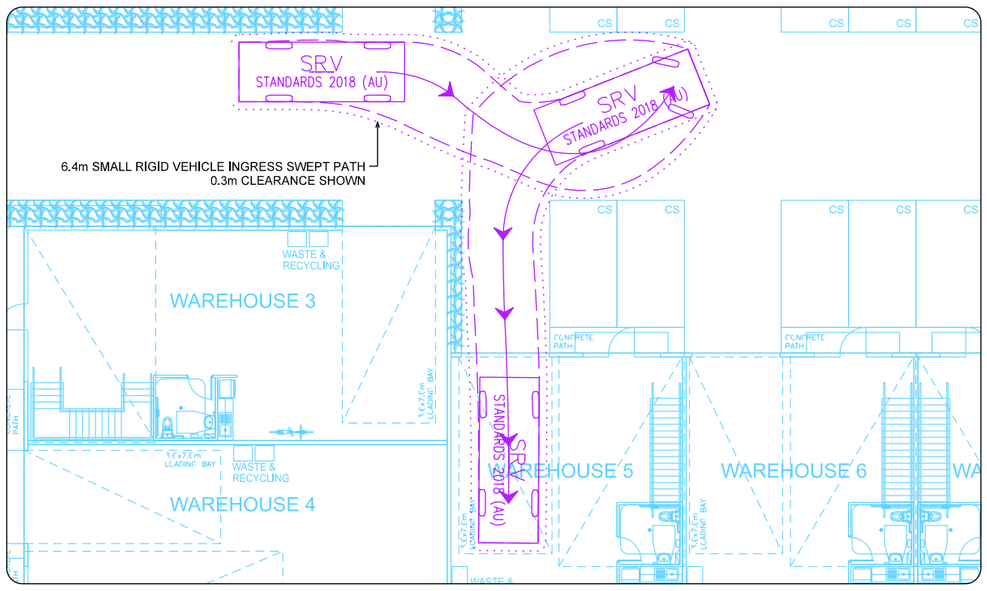
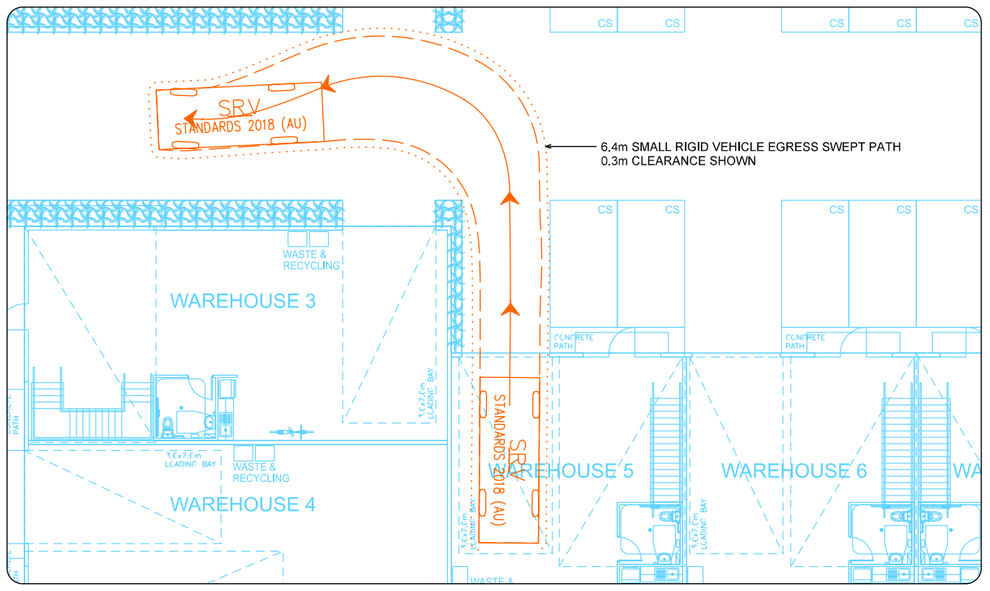
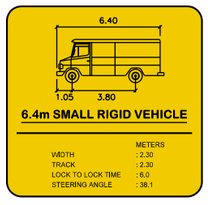
20/05/2024 12:58:14 PM











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MELWAY ONLINE REF: MAP 154 G12

SCALE
1:200 @ A3

Client
SPECTRE PROPERTY

Date **2024-05-20**
Drawn / Approved **WH / SM**

Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

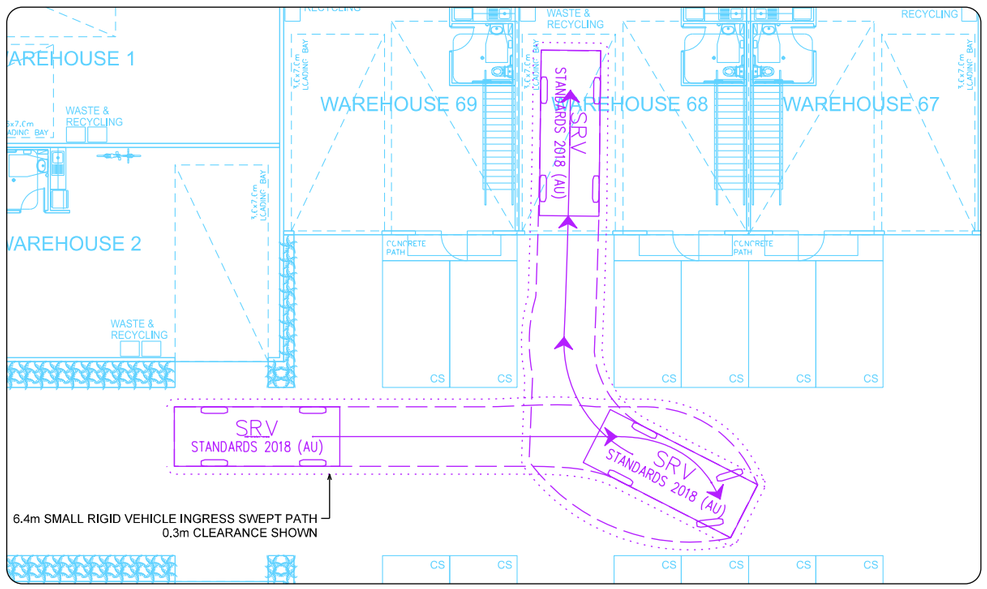
Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

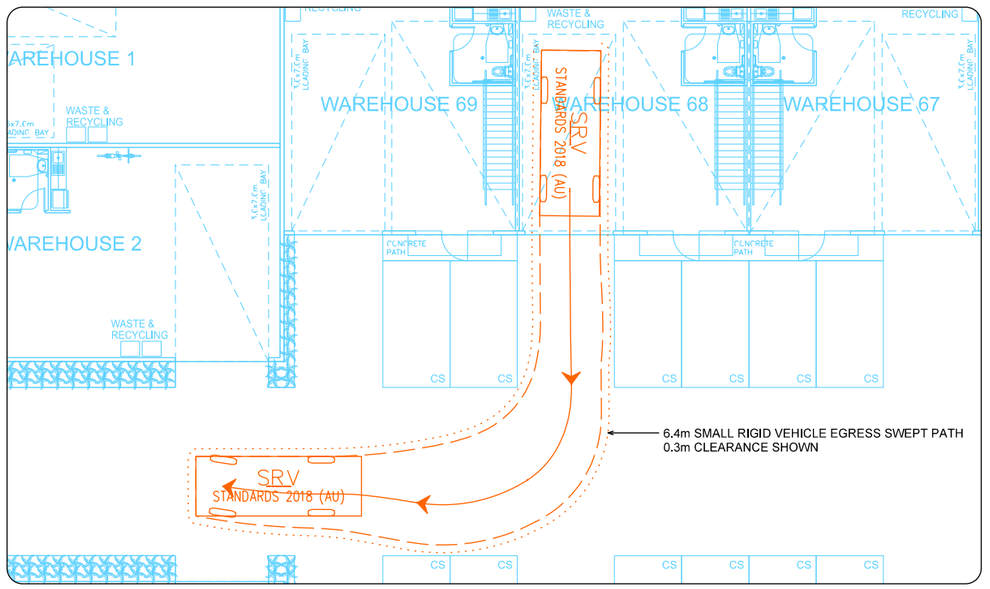
Status
PRELIMINARY

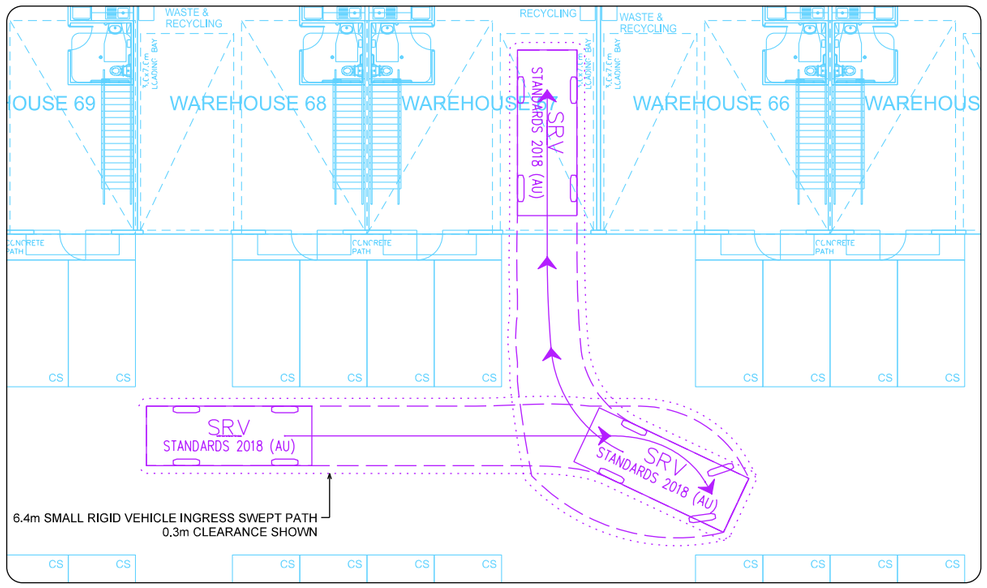
Drawing Number
IMP2403028 - DRG-01-07

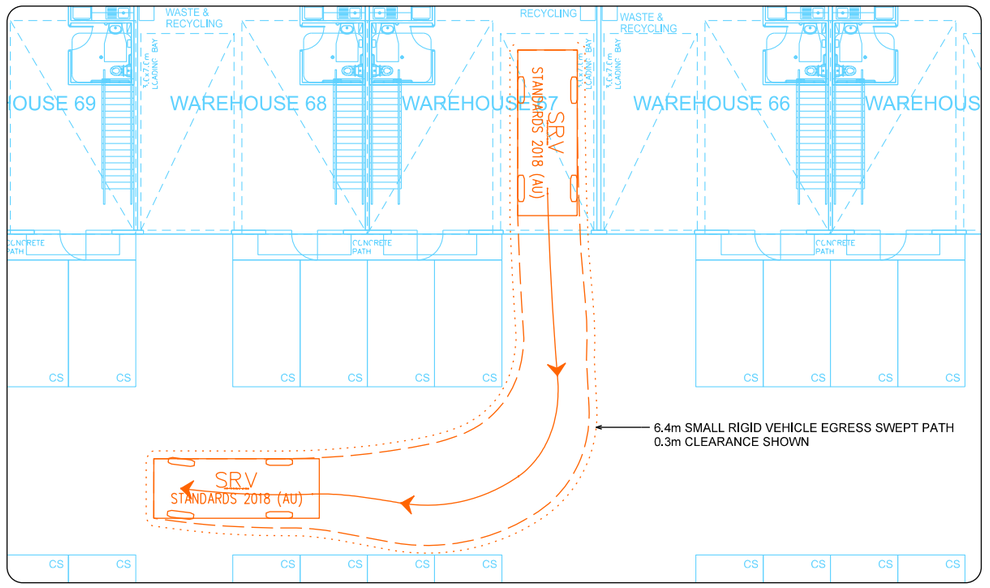
Revision
B

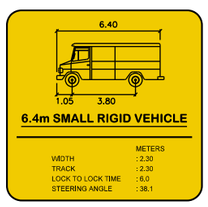
20/05/2024 12:58:16 PM











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SCALE
1:200 @ A3

Client
SPECTRE PROPERTY

Date **2024-05-20**
Drawn / Approved **WH / SM**

Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

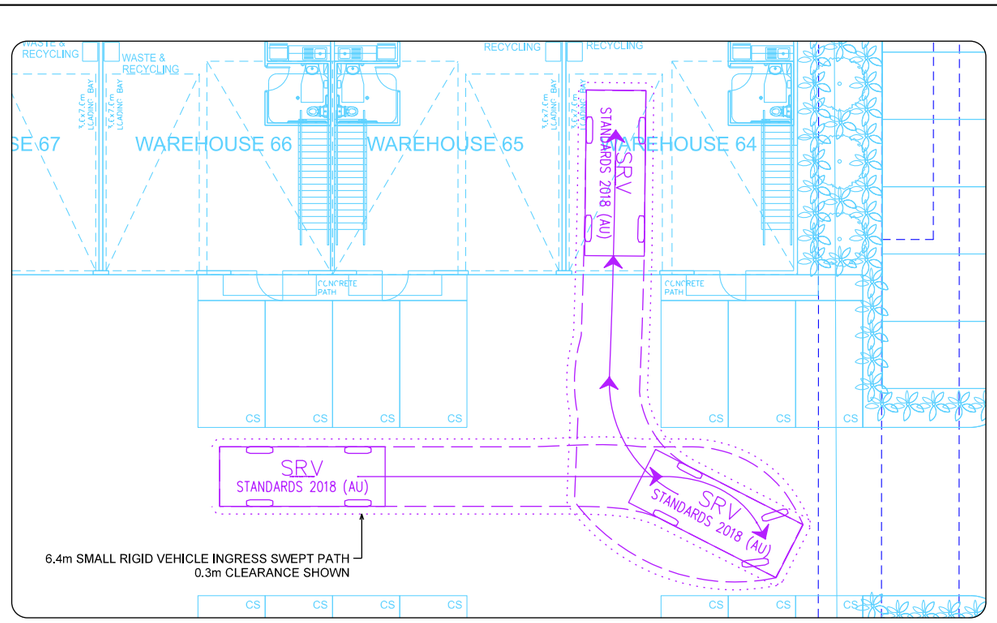
Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

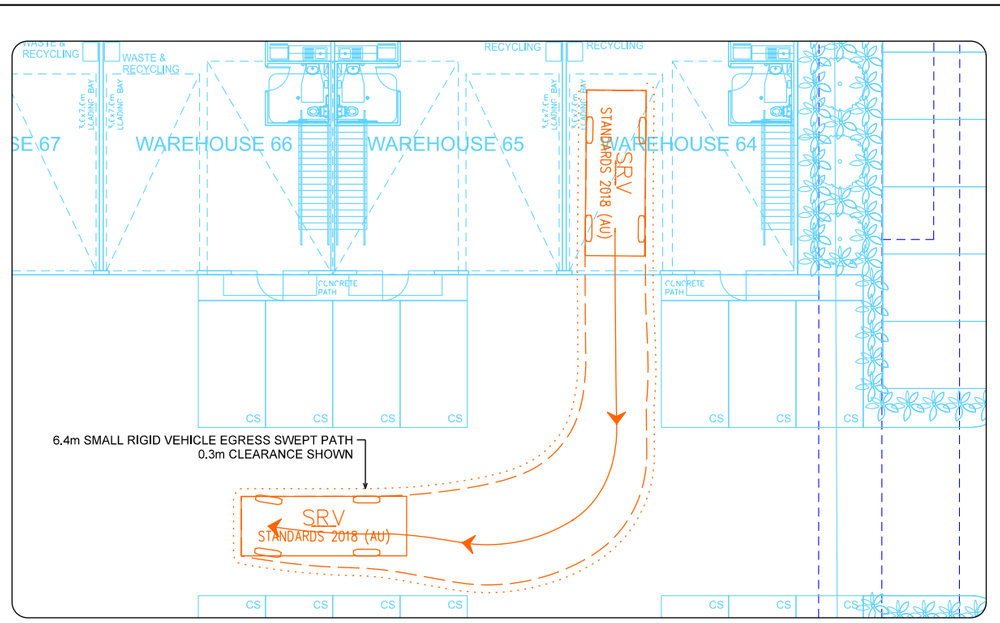
Status
PRELIMINARY

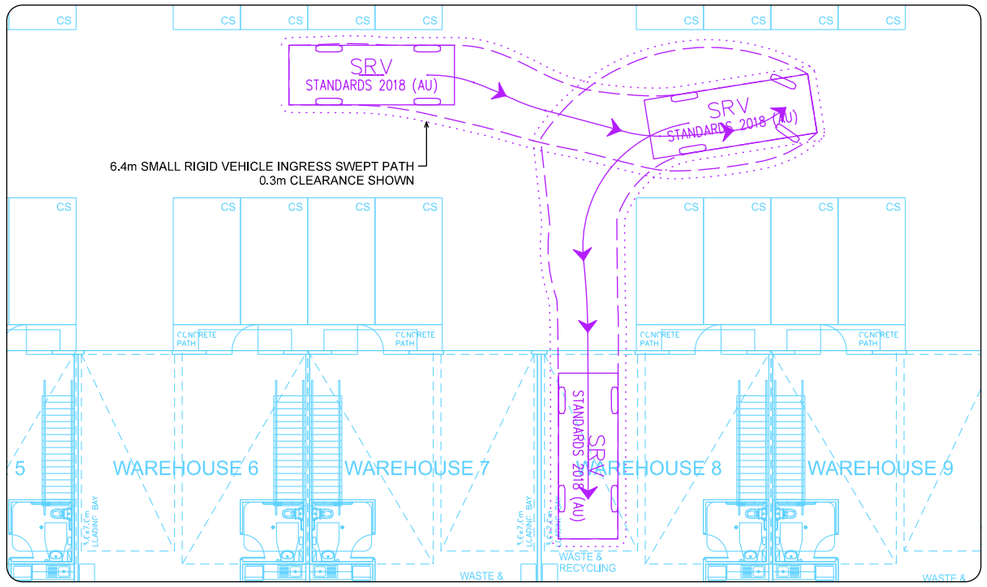
Drawing Number
IMP2403028 - DRG-01-08

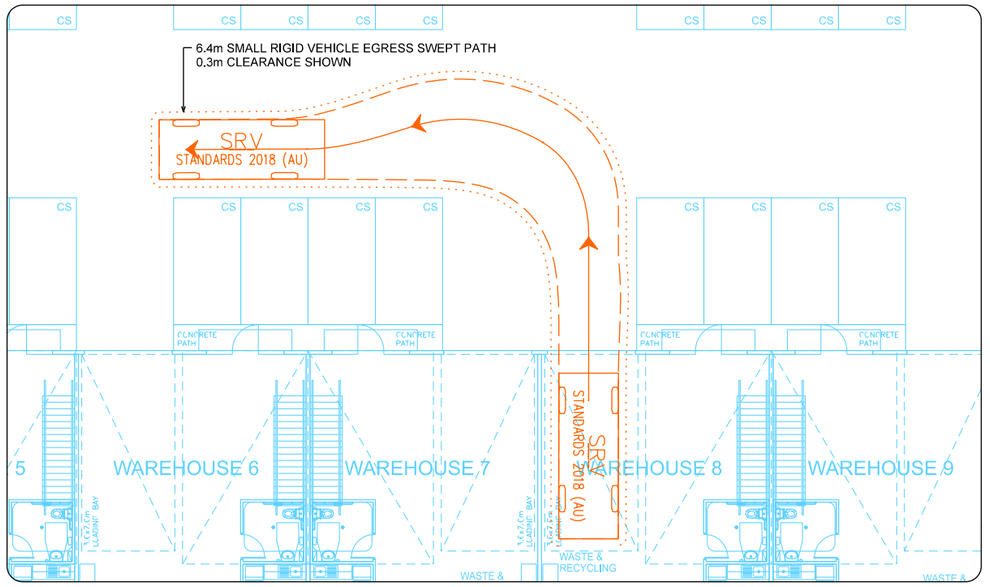
Revision
B

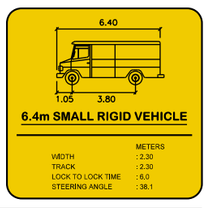
20/05/2024 12:58:18 PM











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SCALE
1:200 @ A3

Client
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Date **2024-05-20**
Drawn / Approved **WH / SM**

Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

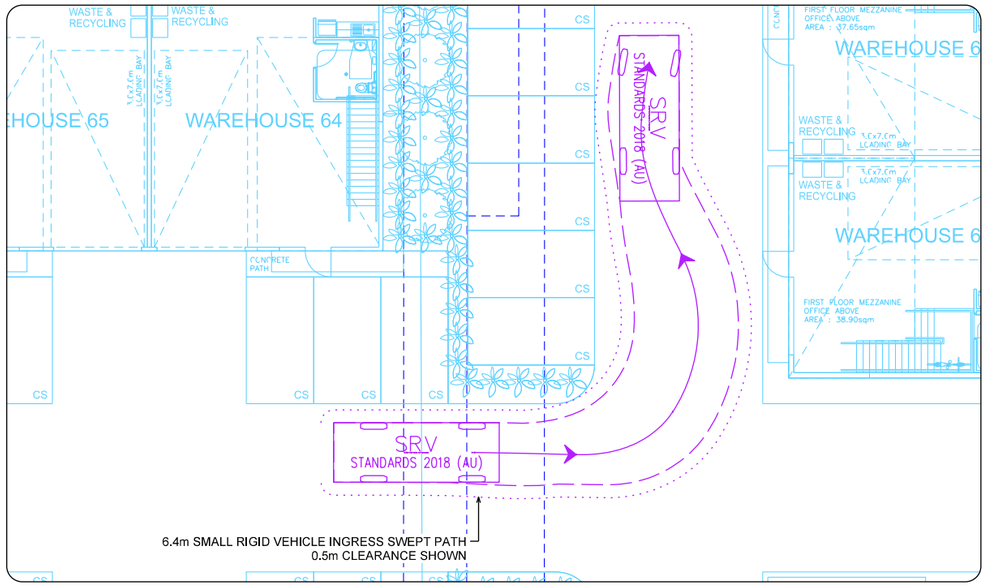
Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

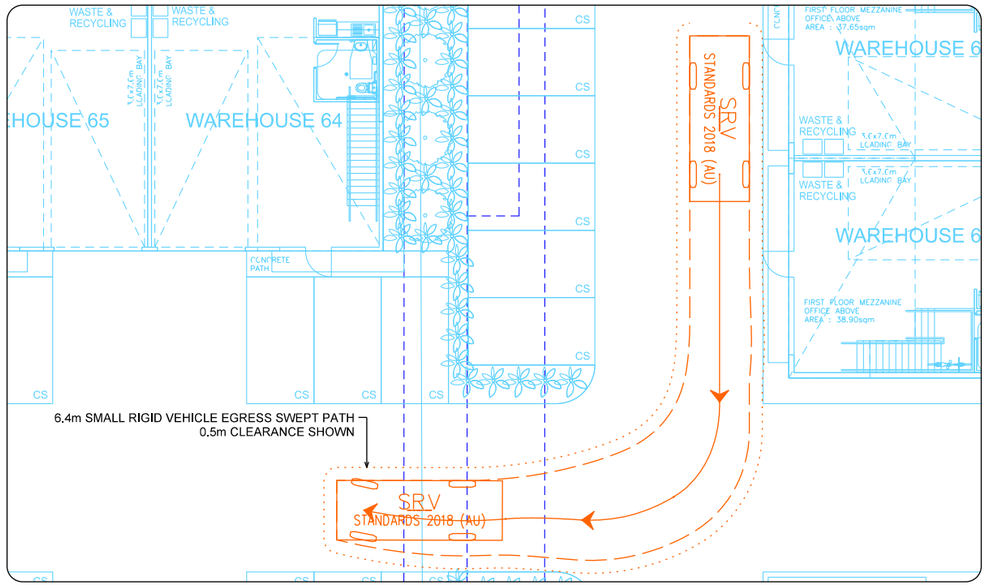
Status
PRELIMINARY

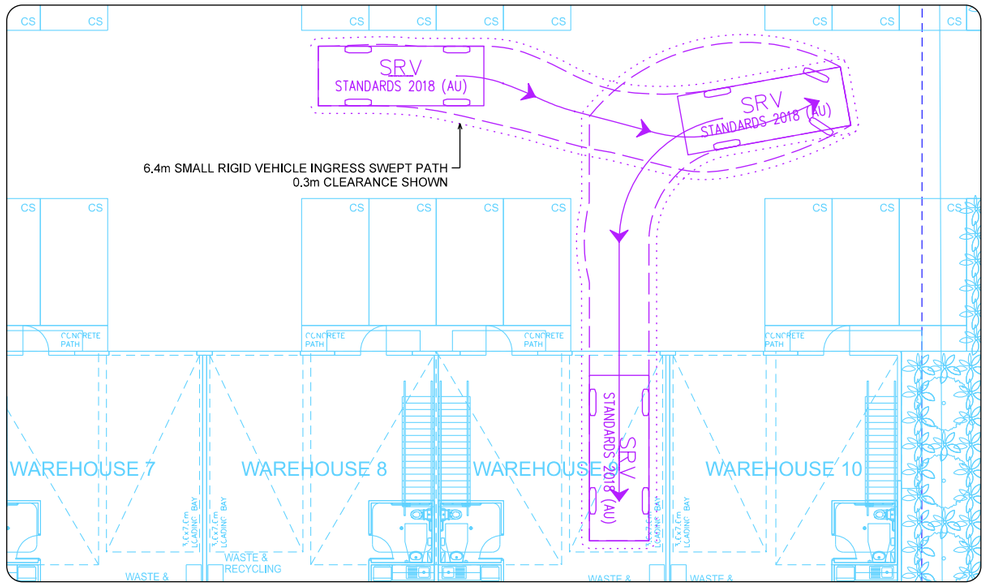
Drawing Number
IMP2403028 - DRG-01-09

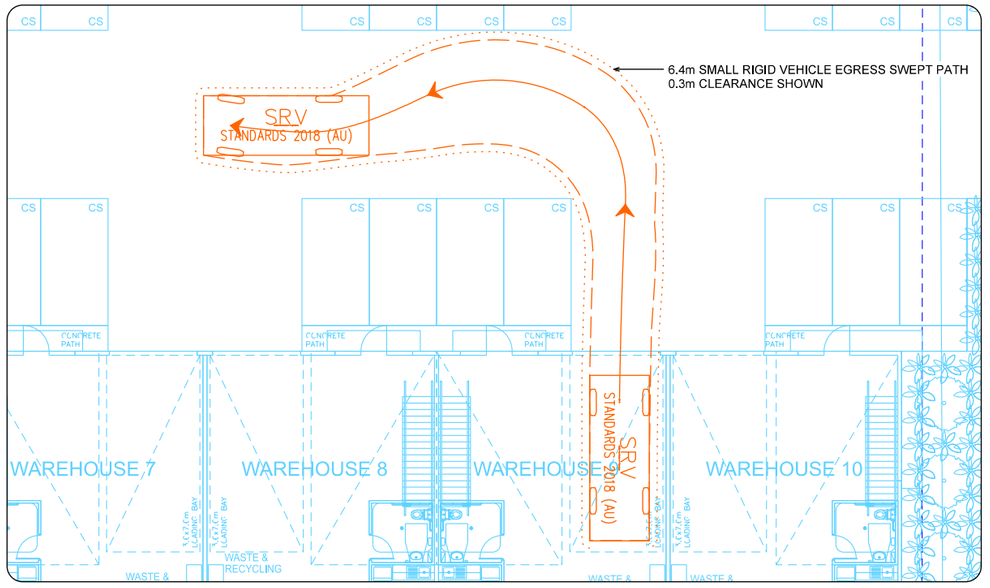
Revision
B

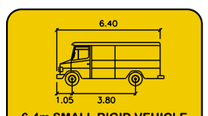
20/05/2024 12:58:20 PM











6.4m SMALL RIGID VEHICLE

	METERS
WIDTH	: 2.30
TRACK	: 2.30
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 38.1

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SCALE
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Date **2024-05-20**
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Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

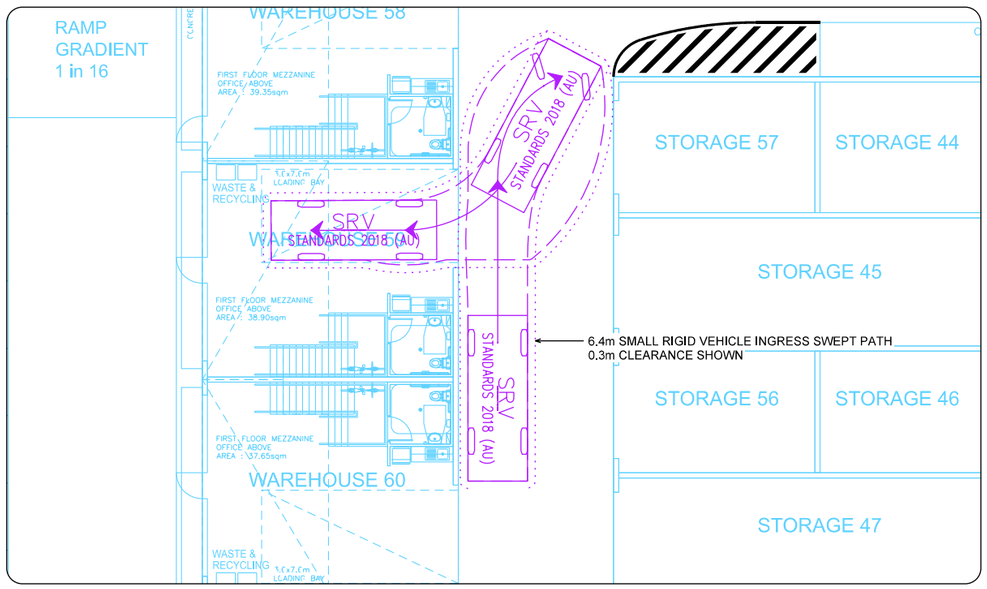
Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

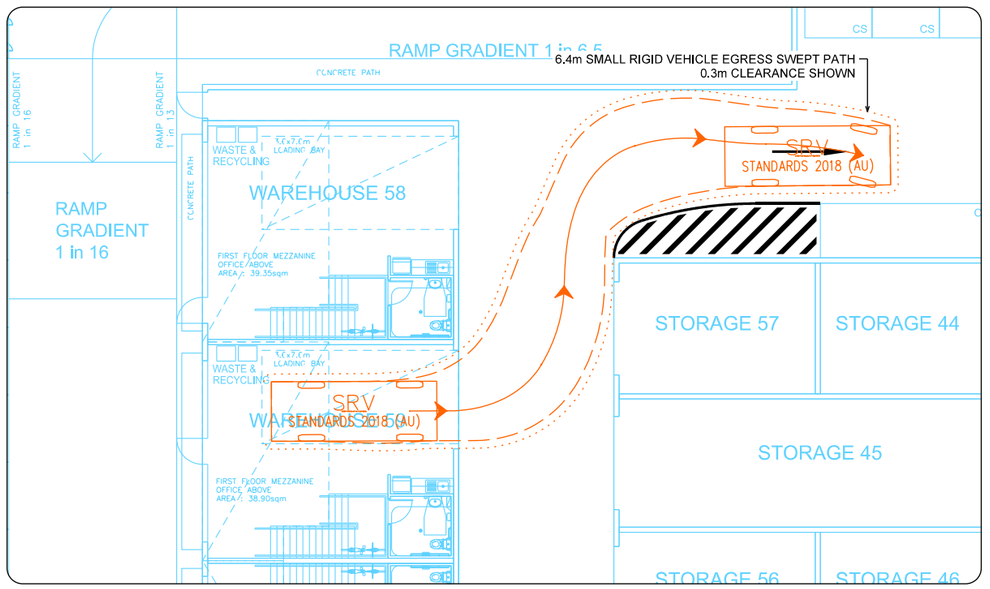
Status
PRELIMINARY

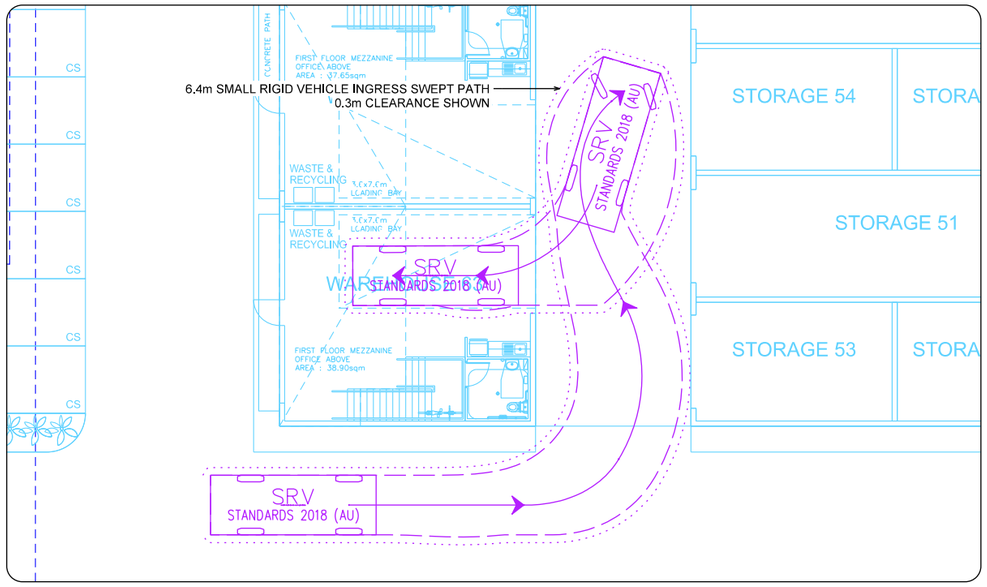
Drawing Number
IMP2403028 - DRG-01-10

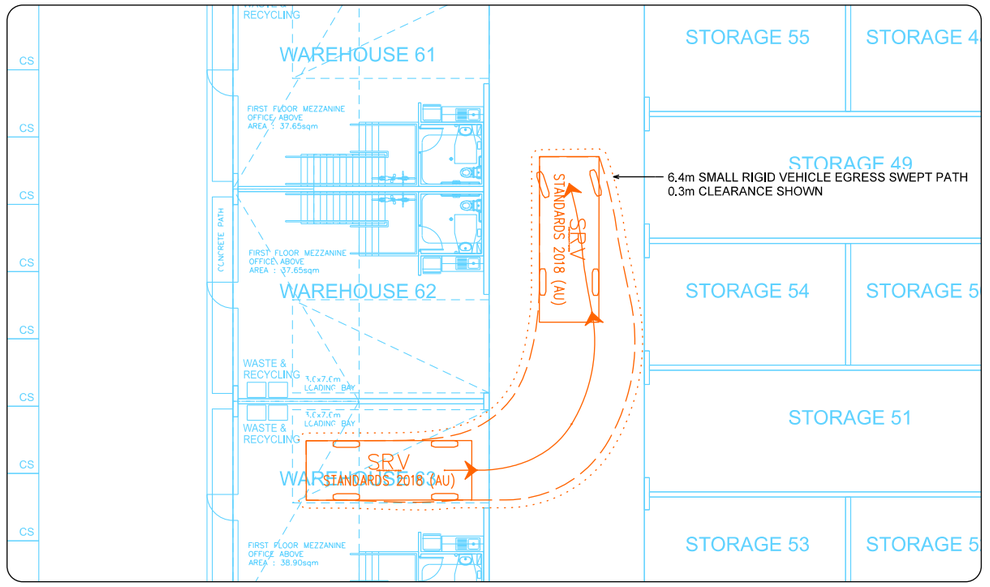
Revision
B

20/05/2024 12:58:22 PM









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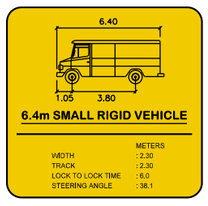

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SCALE
1:200 @ A3

Client
SPECTRE PROPERTY

Date **2024-05-20**
Drawn / Approved **WH / SM**

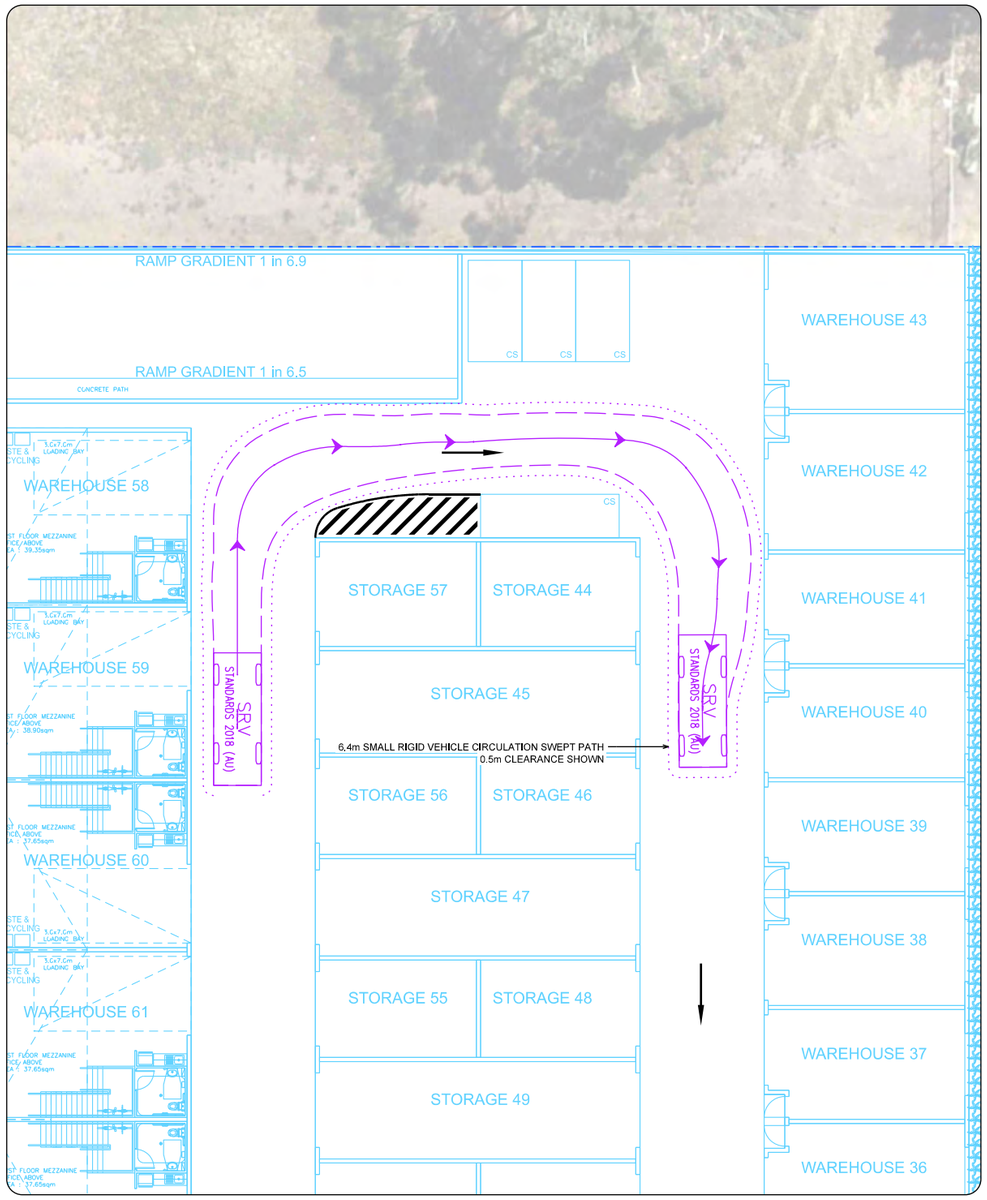
Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

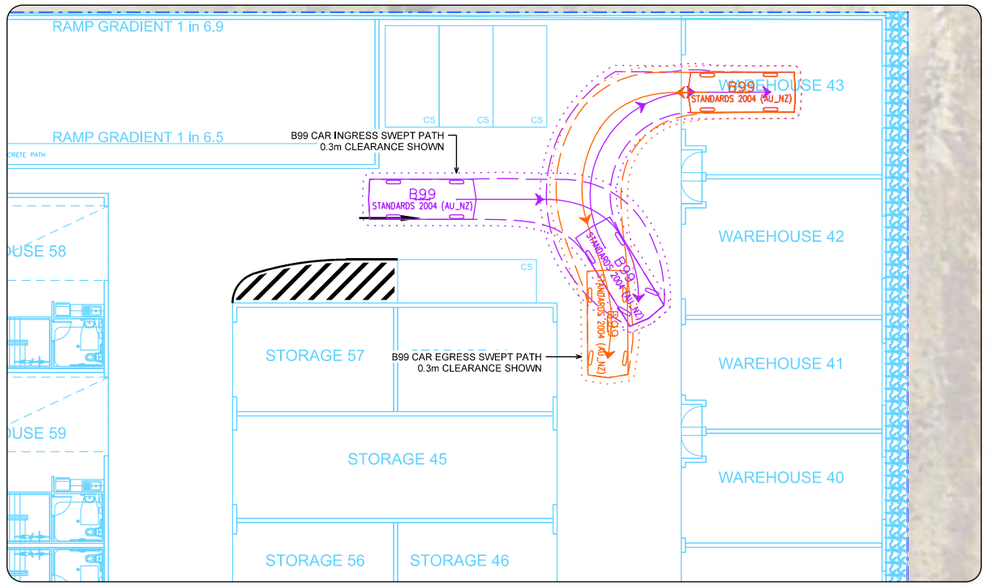
Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

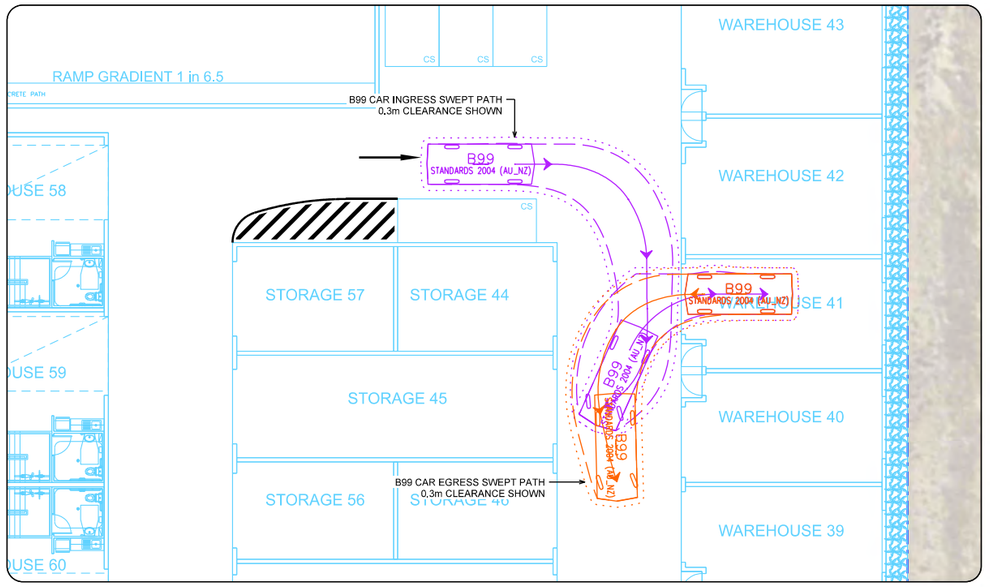
Status
PRELIMINARY

Drawing Number
IMP2403028 - DRG-01-11

Revision
B







5.20
0.95 3.05
B99 CAR

	METERS
WIDTH	: 1.94
TRACK	: 1.84
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 33.9

6.40
1.05 3.80
6.4m SMALL RIGID VEHICLE

	METERS
WIDTH	: 2.30
TRACK	: 2.30
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 38.1

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MELWAY ONLINE REF: MAP 154 G12

SCALE
1:250 @ A3

Client
SPECTRE PROPERTY

Date **2024-05-20**
Drawn / Approved **WH / SM**

Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

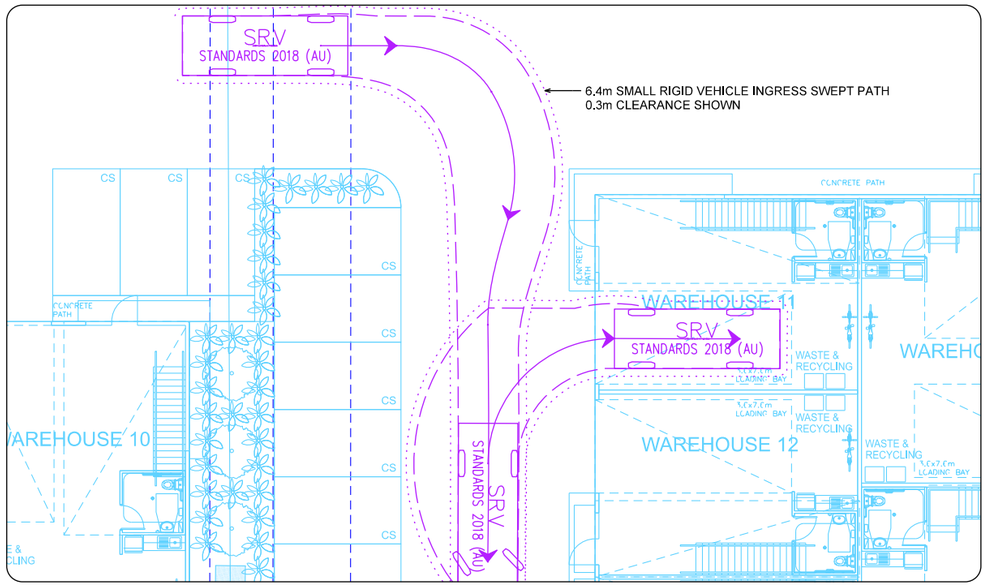
Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
B99 CAR AND 6.4m SMALL RIGID VEHICLE

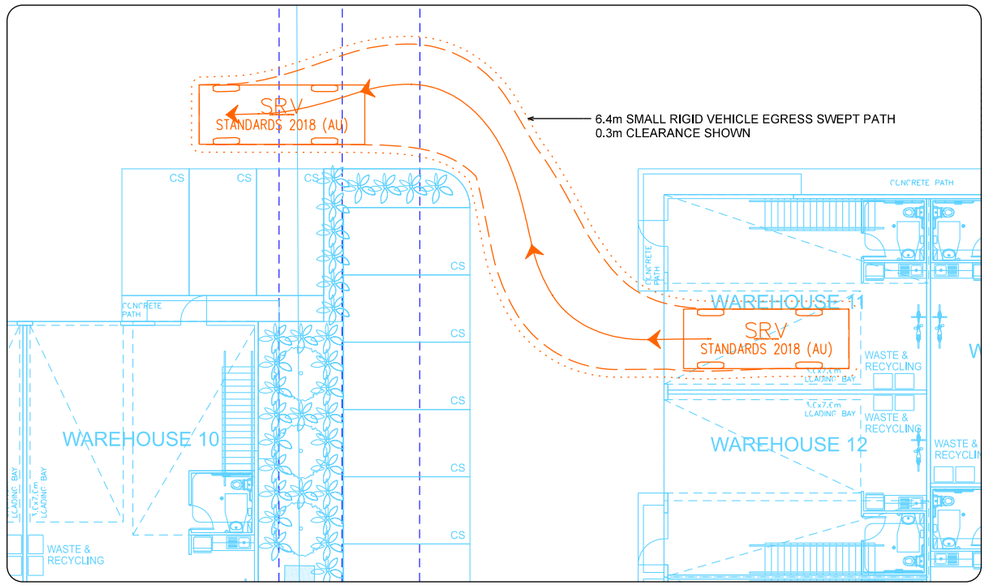
Status
PRELIMINARY

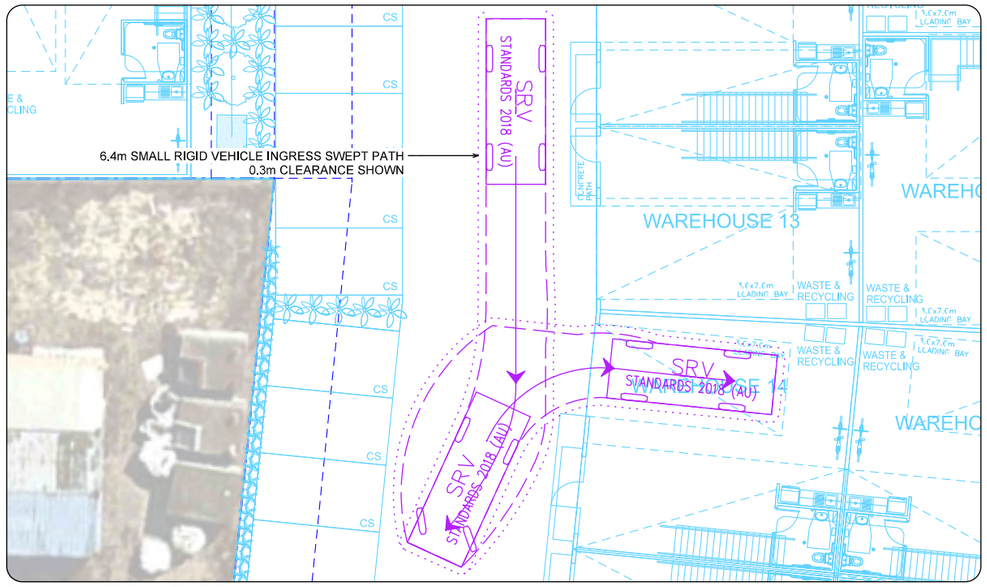
Drawing Number
IMP2403028 - DRG-01-12

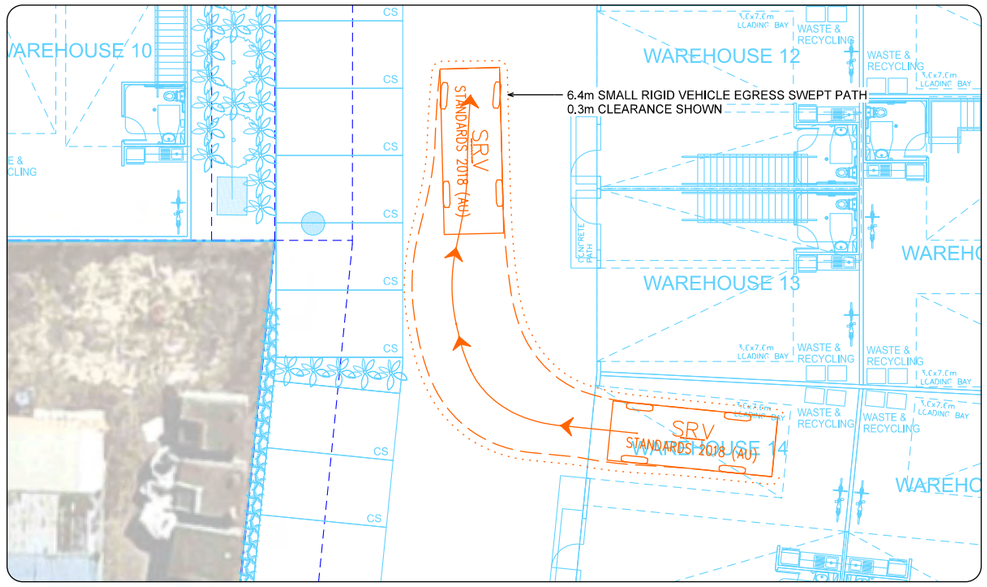
Revision
B

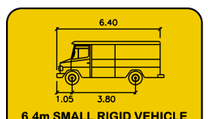
20/05/2024 12:58:27 PM











6.4m SMALL RIGID VEHICLE

	METERS
WIDTH	: 2.30
TRACK	: 2.30
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 38.1

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SCALE
1:200 @ A3

Client
SPECTRE PROPERTY

Date **2024-05-20**
Drawn / Approved **WH / SM**

Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

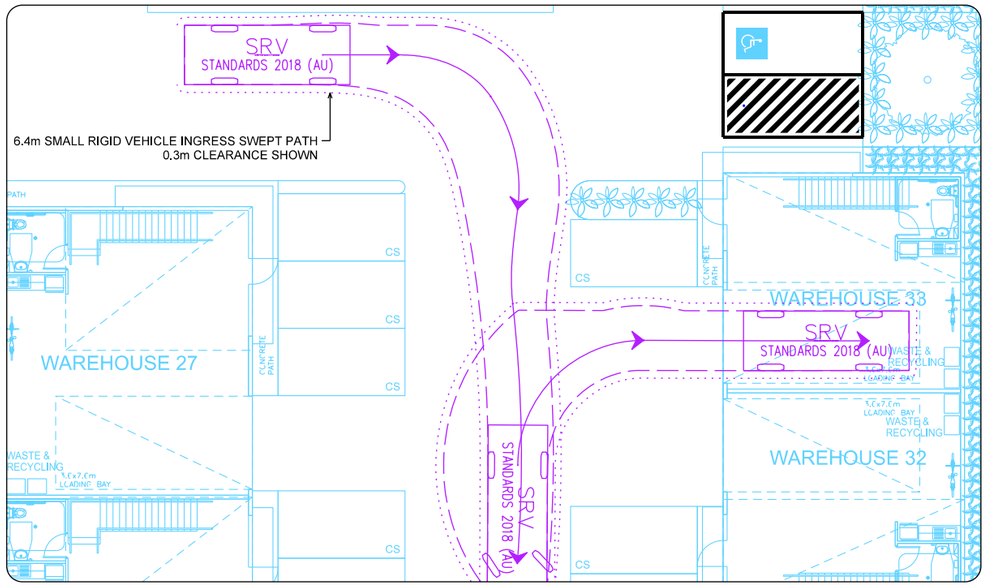
Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

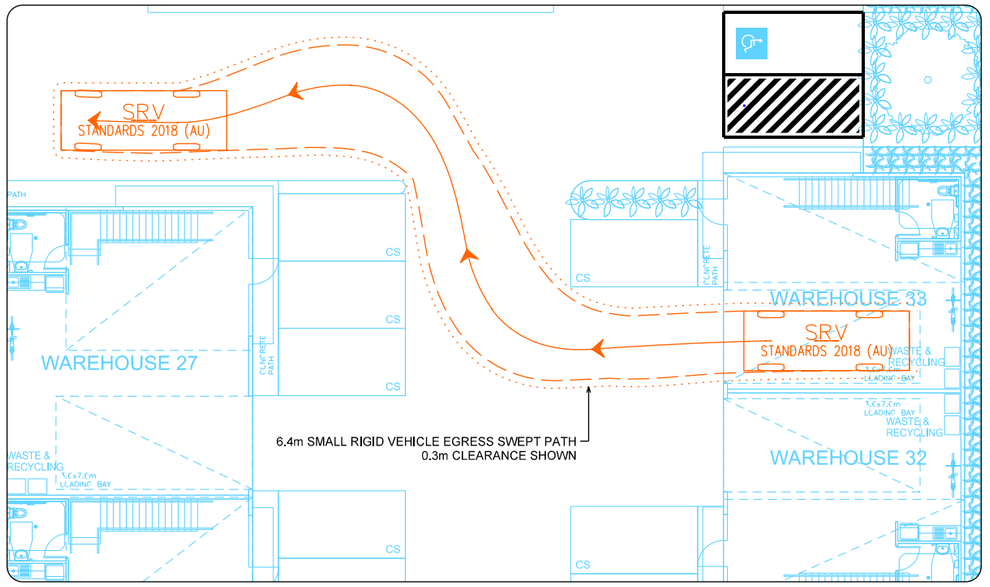
Status
PRELIMINARY

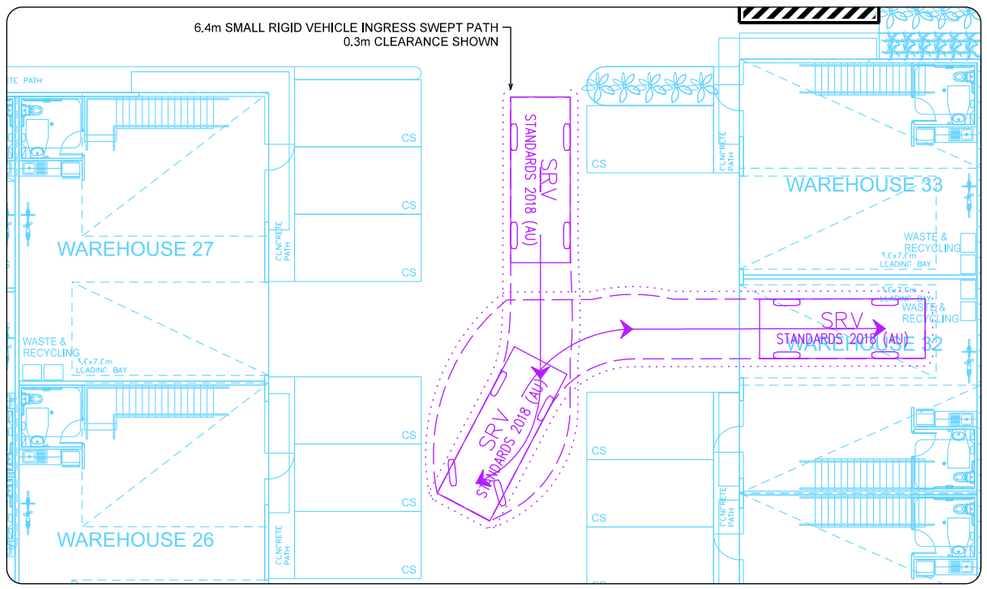
Drawing Number
IMP2403028 - DRG-01-13

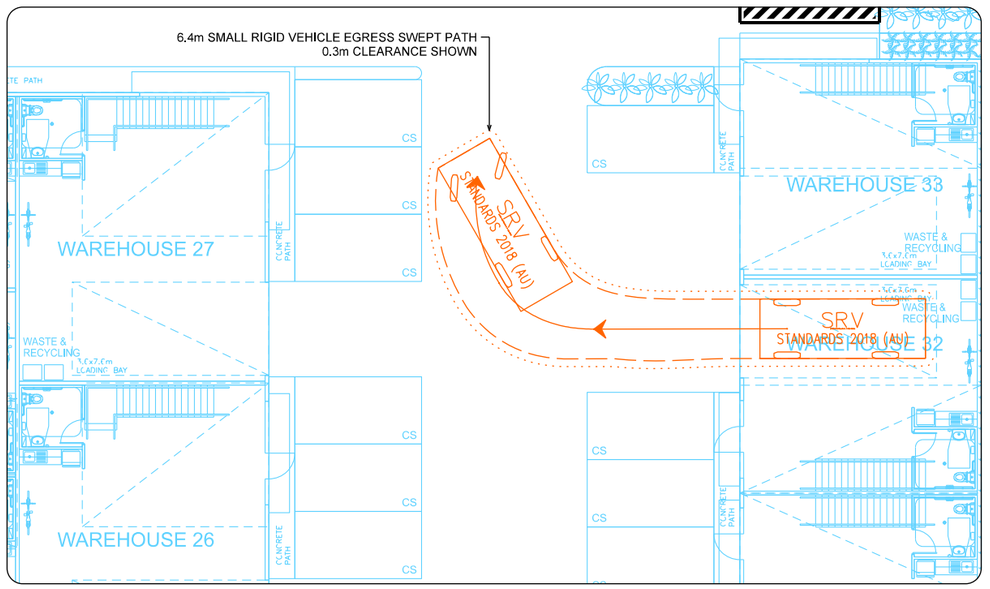
Revision
B

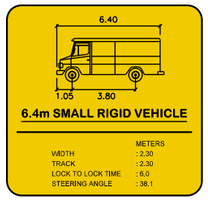
20/05/2024 12:58:29 PM











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MELWAY ONLINE REF: MAP 154 G12

SCALE
1:200 @ A3

Client
SPECTRE PROPERTY

Date **2024-05-20**
Drawn / Approved **WH / SM**

Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

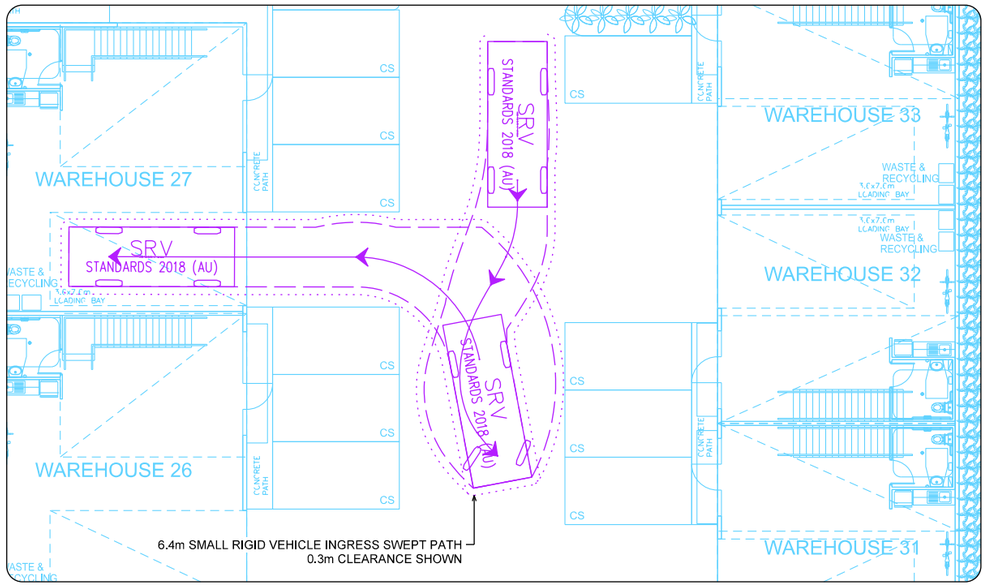
Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

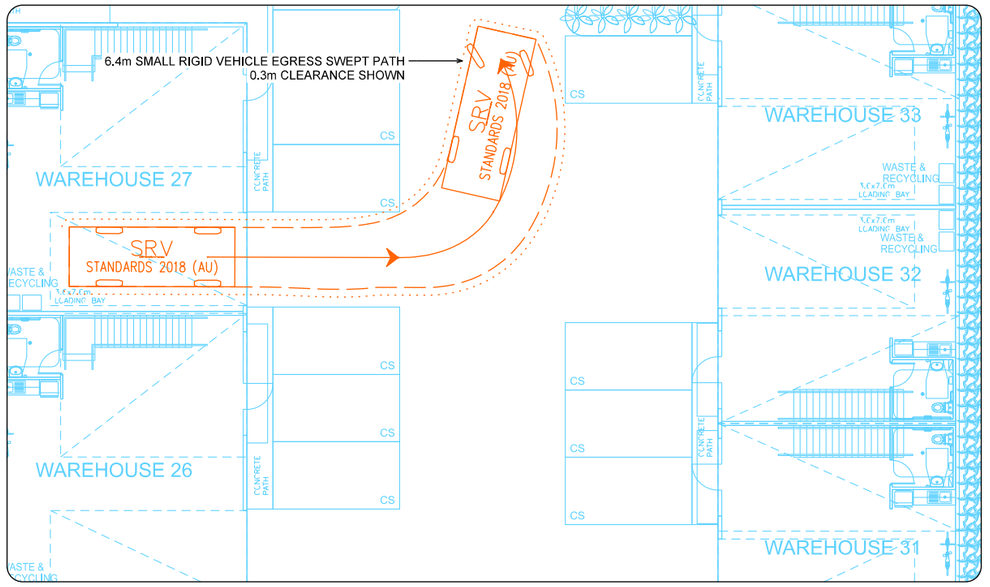
Status
PRELIMINARY

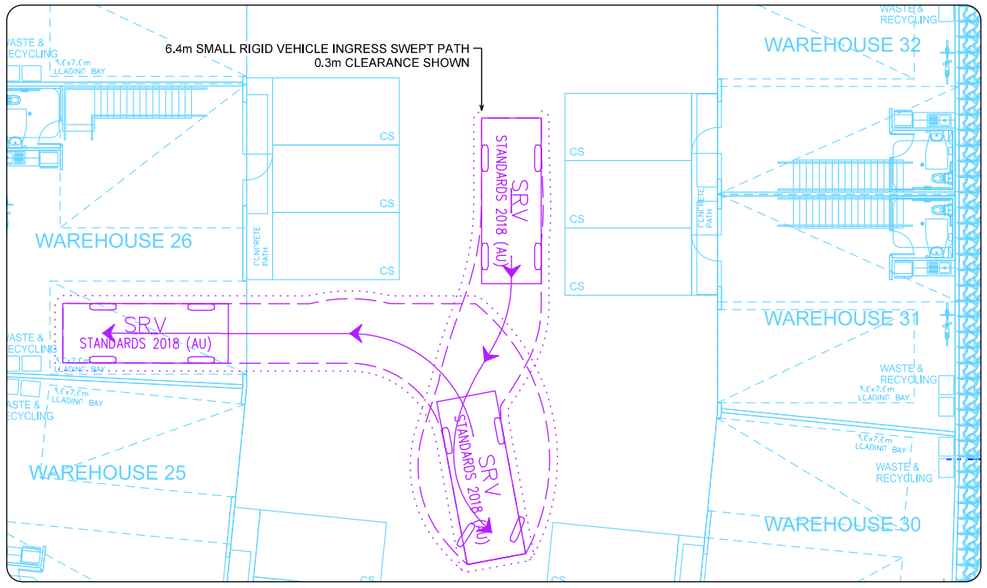
Drawing Number
IMP2403028 - DRG-01-14

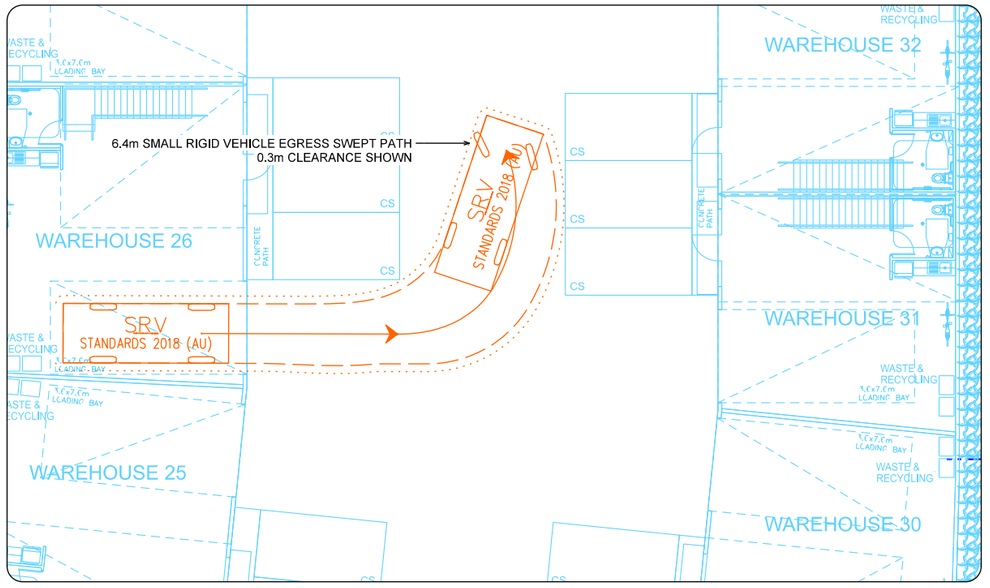
Revision
B

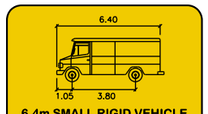
20/05/2024 12:58:31 PM











6.4m SMALL RIGID VEHICLE

	METERS
WIDTH	: 2.30
TRACK	: 2.30
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 38.1

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MELWAY ONLINE REF: MAP 154 G12

SCALE
1:200 @ A3

Client
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Date **2024-05-20**
Drawn / Approved **WH / SM**

Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

Status	Drawing Number	Revision
PRELIMINARY	**IMP2403028 - DRG-01-15**	**B**

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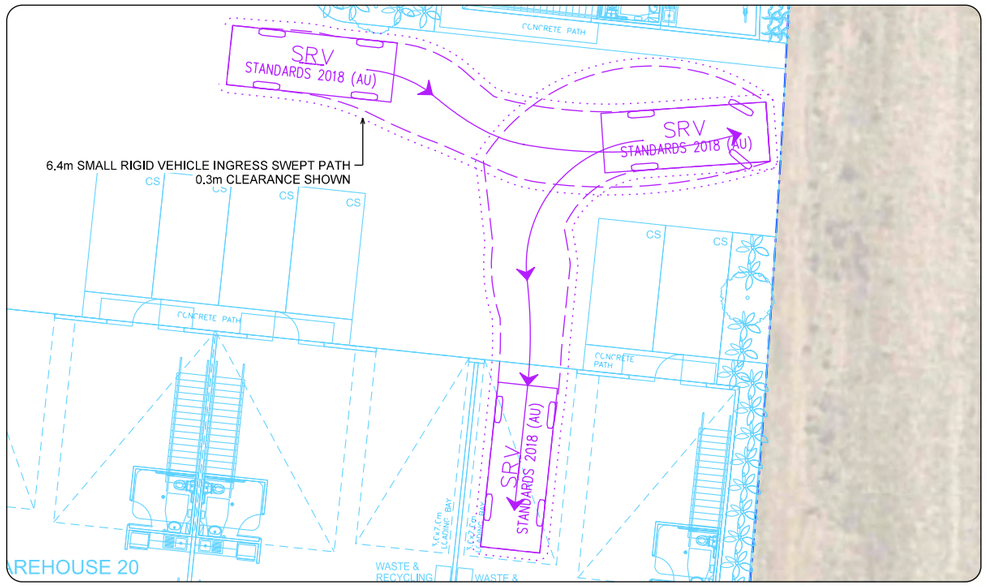

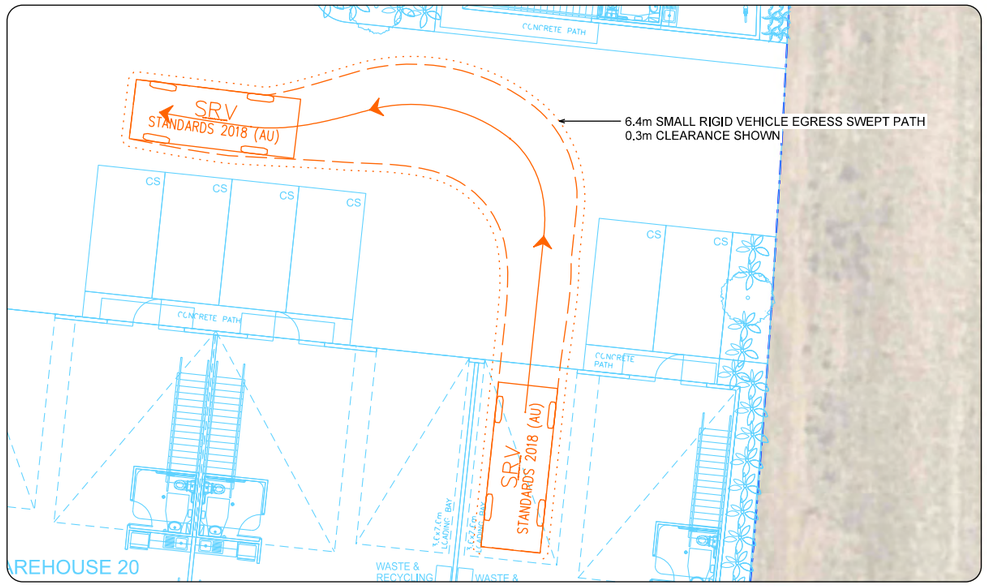

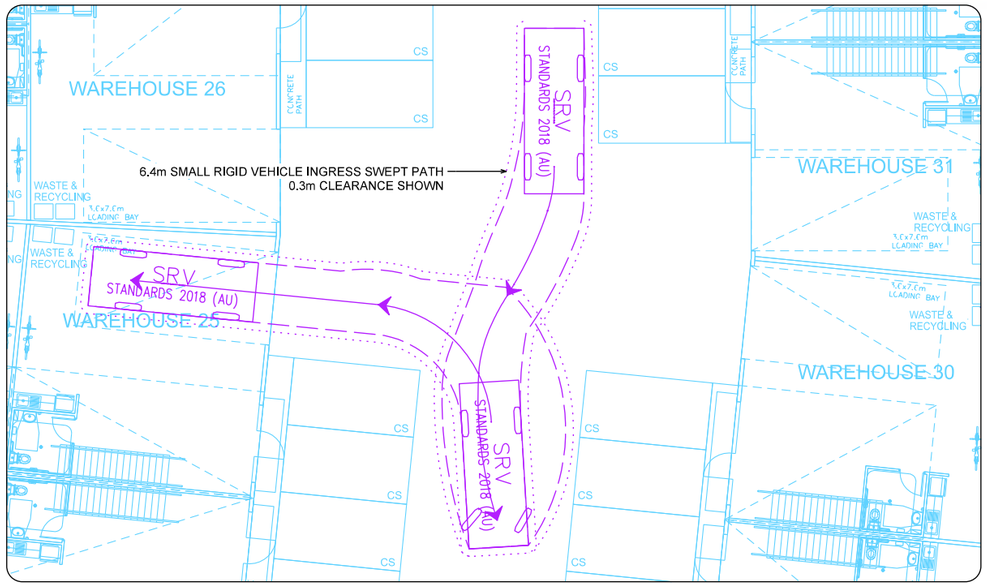

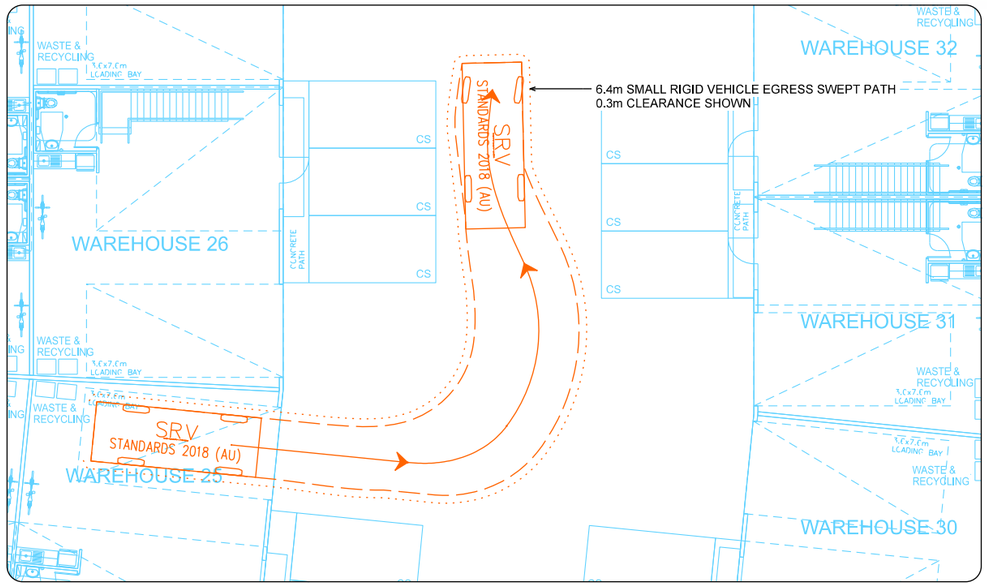

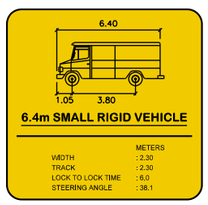

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MELWAY ONLINE REF: MAP 154 G12

SCALE
1:200 @ A3

Client
SPECTRE PROPERTY

Date **2024-05-20**
Drawn / Approved **WH / SM**

Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

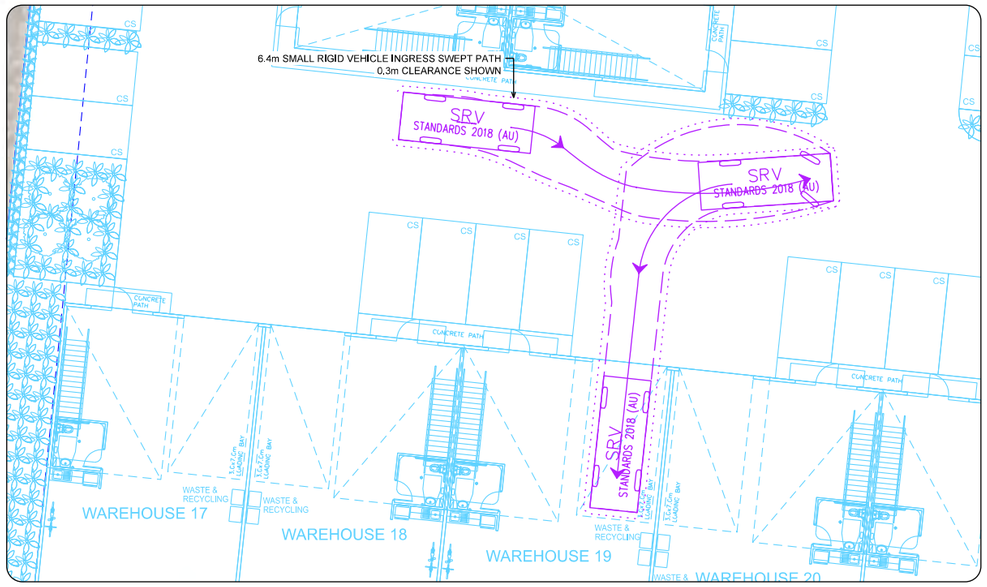
Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

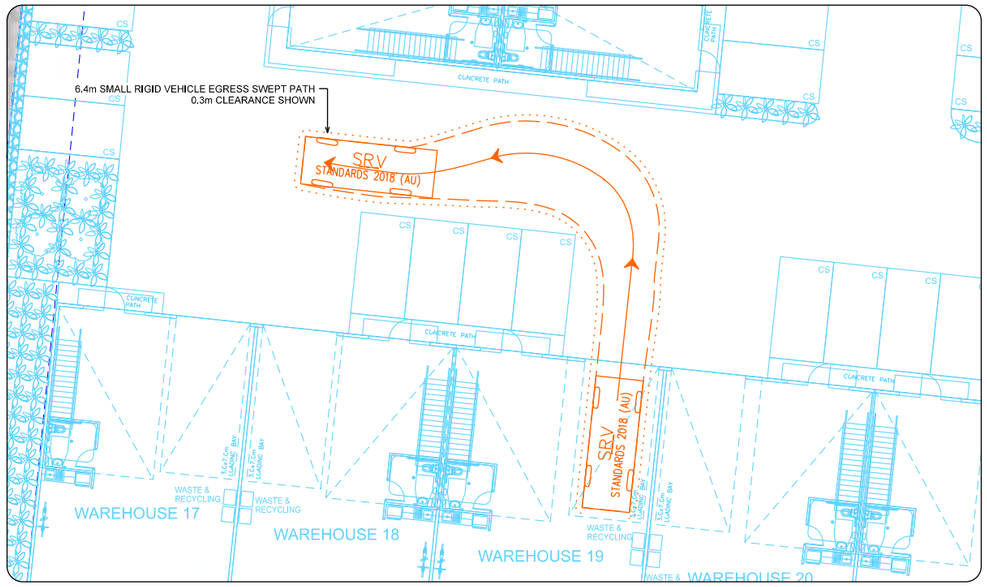
Status
PRELIMINARY

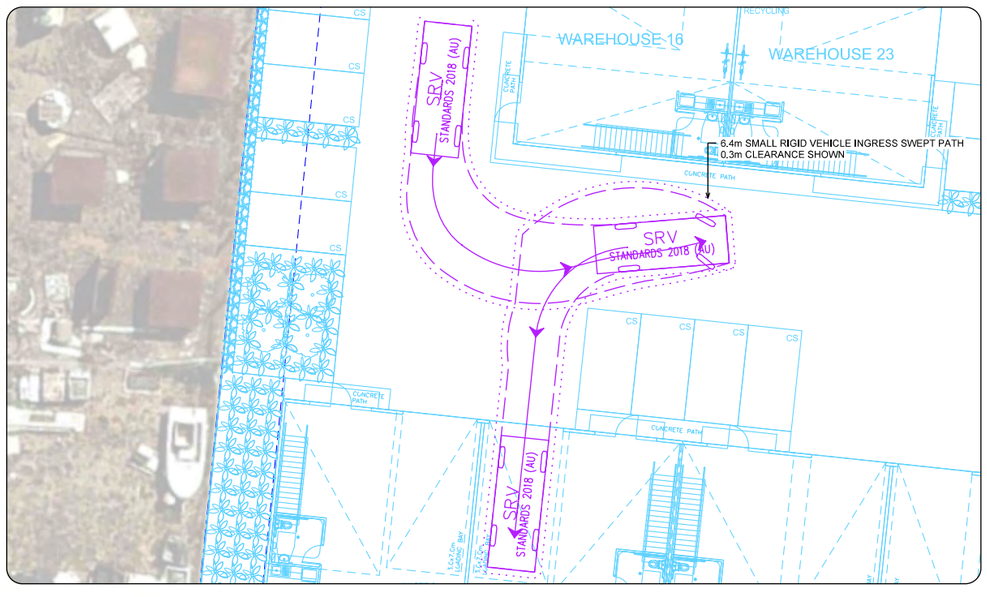
Drawing Number
IMP2403028 - DRG-01-16

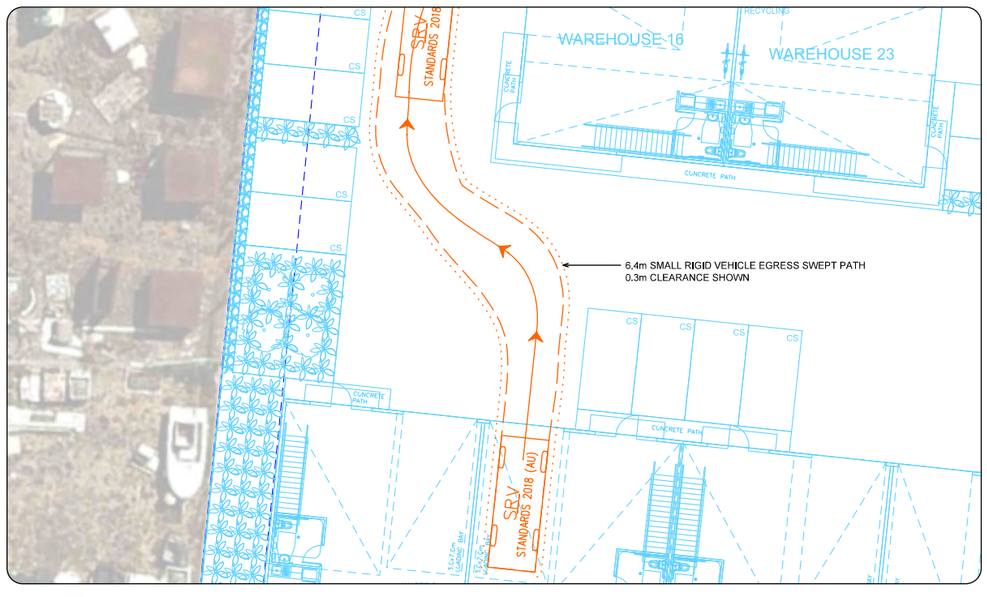
Revision
B

20/05/2024 12:58:36 PM









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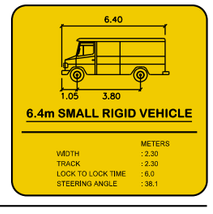

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SCALE
1:250 @ A3

Client
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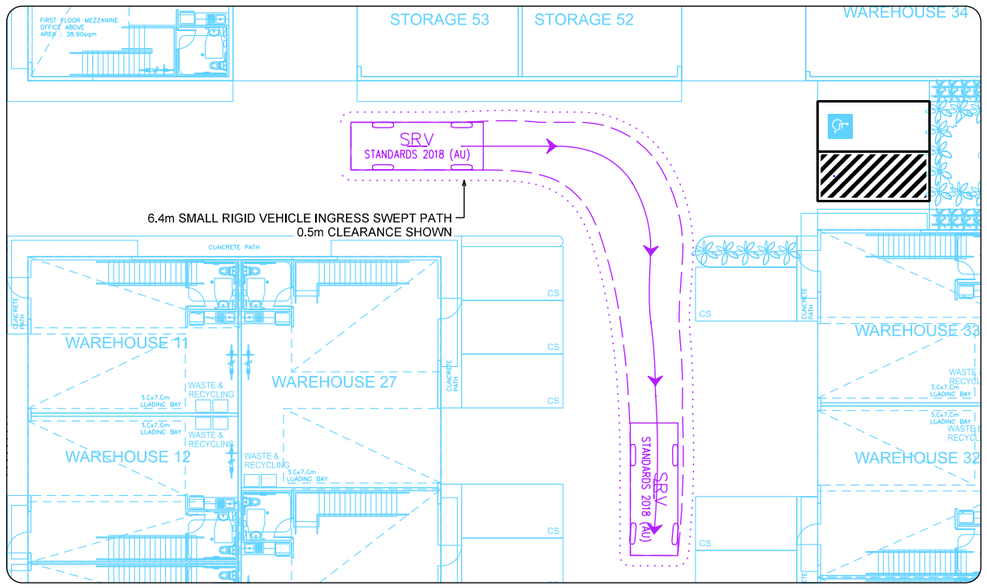
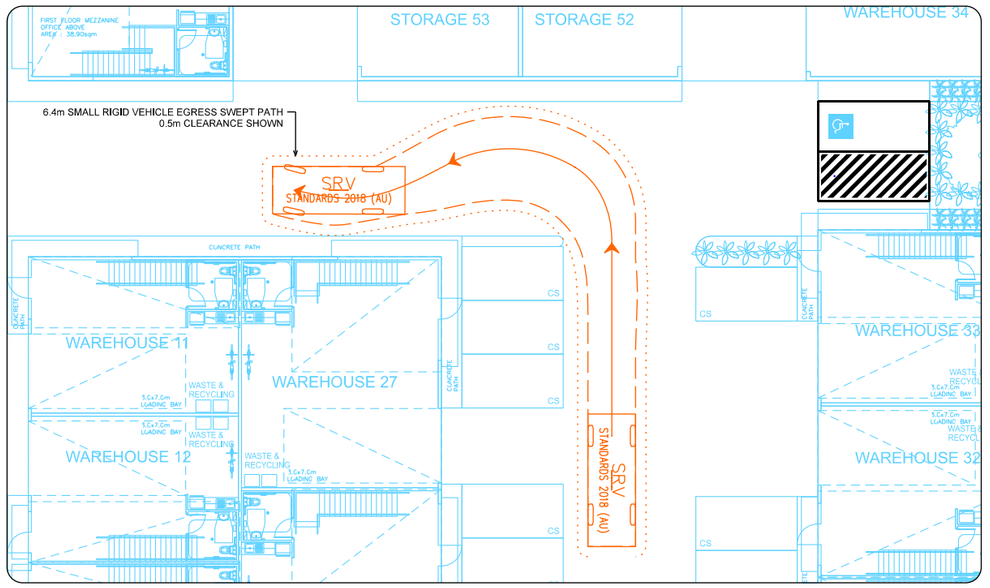
Date **2024-05-20**
Drawn / Approved **WH / SM**

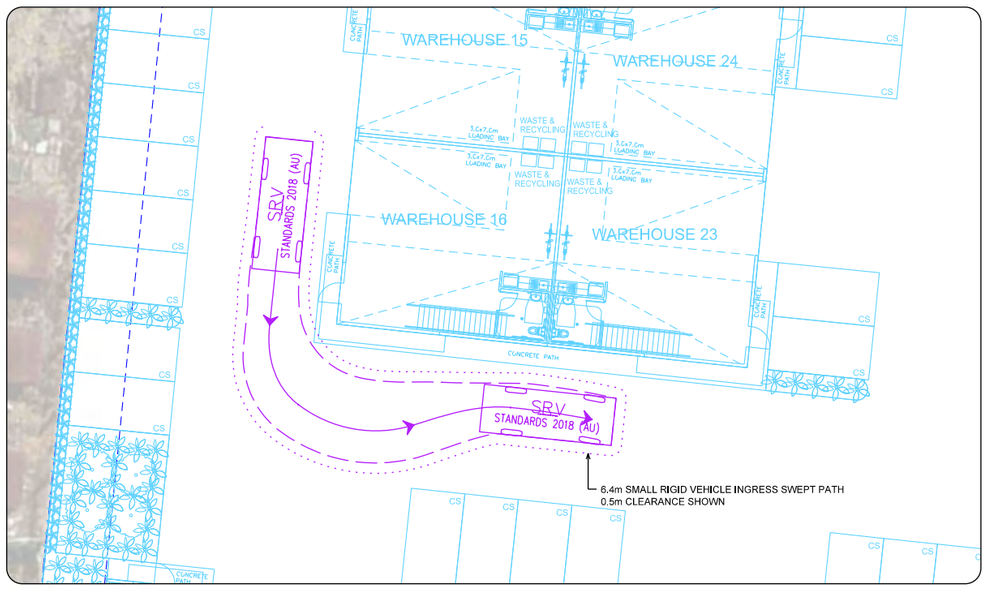
Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

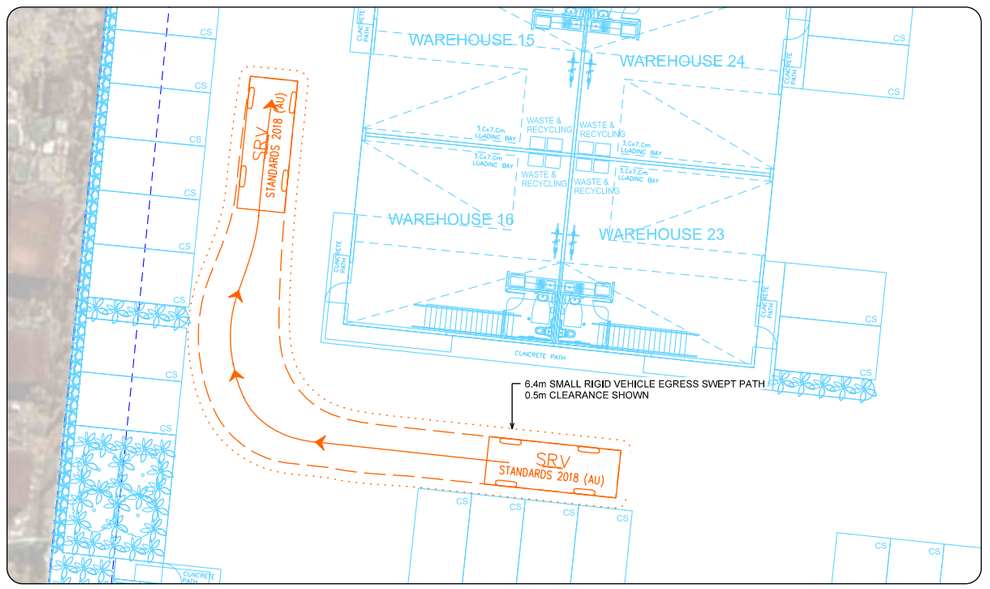
Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

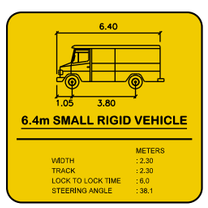
Status	Drawing Number	Revision
PRELIMINARY	**IMP2403028 - DRG-01-17**	**B**











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MELWAY ONLINE REF: MAP 154 G12

SCALE
1:250 @ A3

Client
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Date **2024-05-20**
Drawn / Approved **WH / SM**

Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

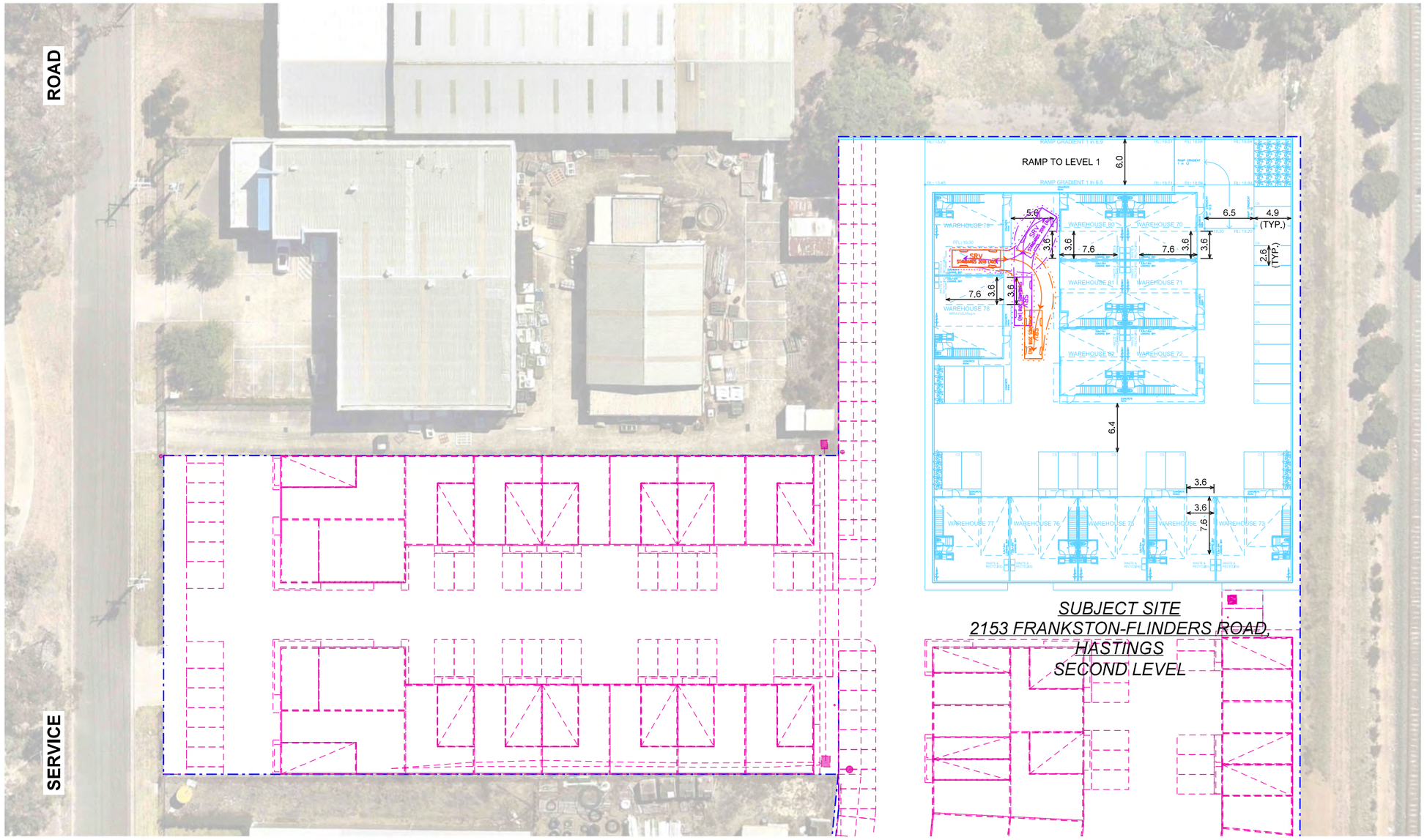
Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

Status
PRELIMINARY

Drawing Number
IMP2403028 - DRG-01-18

Revision
B

20/05/2024 12:58:40 PM



GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. DECLARED ROADS - FRANKSTON-FLINDERS ROAD (SPEED ZONE 70KM/H).
   - SERVICE ROAD (SPEED ZONE 40KM/H).
3. BASE INFORMATION FROM NEARMAP AERIAL PHOTOGRAPHY DATED 27.02.2024 AND E.J. Grech & Associates 1735_TP1A.dwg DATED 16.05.2024

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SCALE
1:500 @ A3

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Date **2024-05-20**
Drawn / Approved **WH / SM**

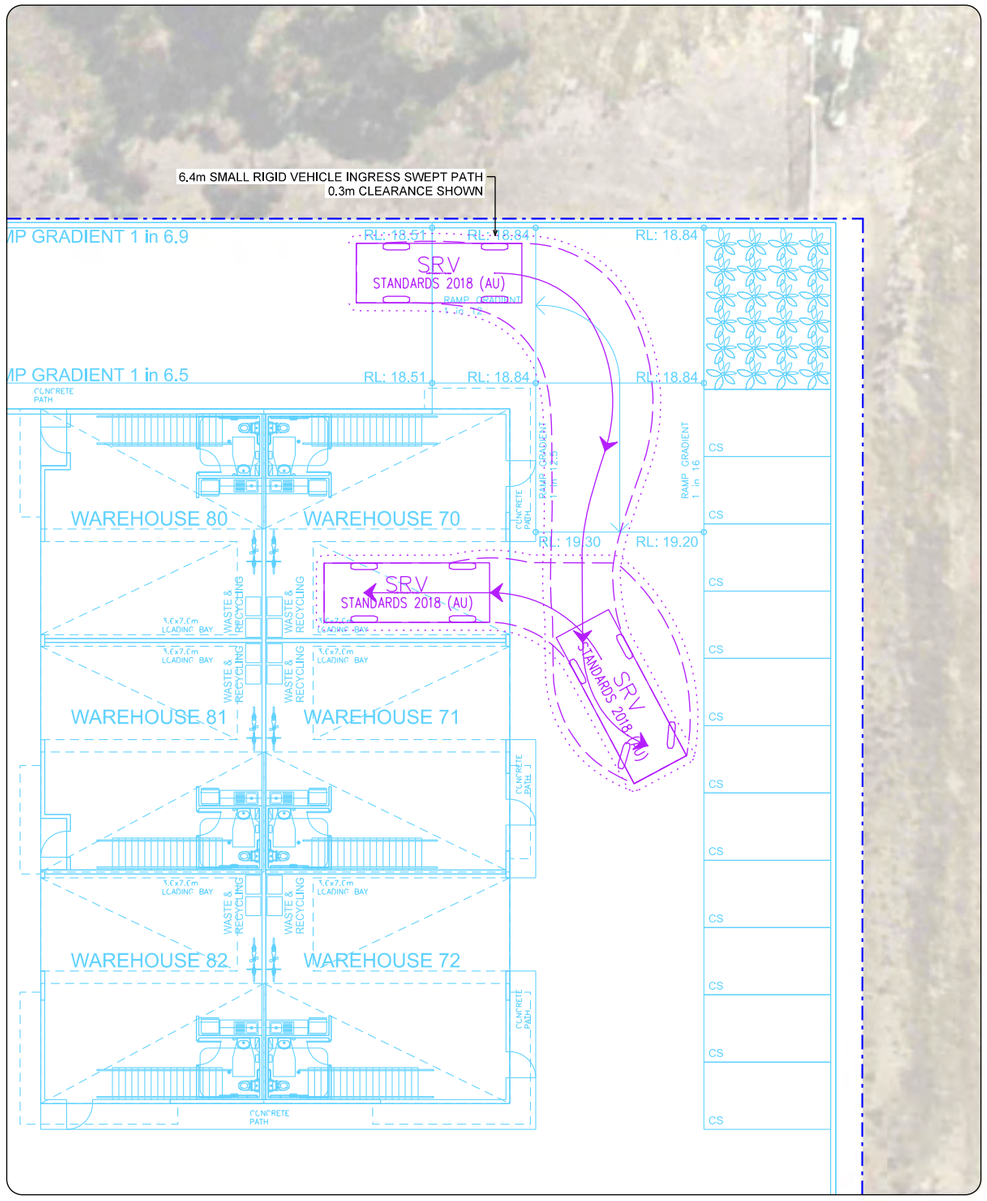
Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

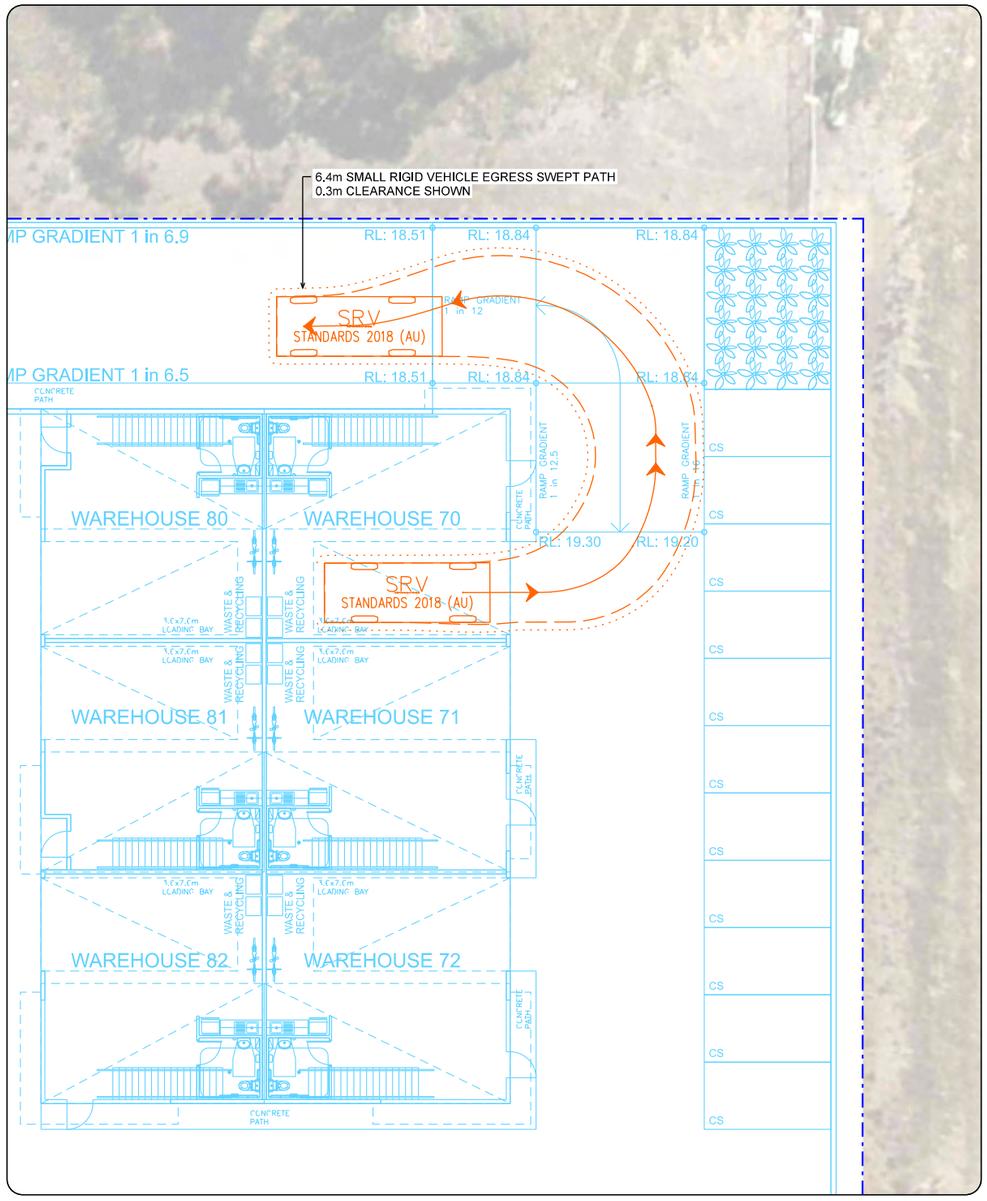
Title
TRAFFIC AND TRANSPORT ASSESSMENT
SITE LAYOUT PLAN
SECOND LEVEL

Status
PRELIMINARY

Drawing Number
IMP2403028 - DRG-01-19

Revision
B





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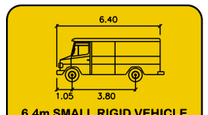

6.4m SMALL RIGID VEHICLE

	METERS
WIDTH	: 2.30
TRACK	: 2.30
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 38.1

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MELWAY ONLINE REF: MAP 154 G12

SCALE
1:200 @ A3

Client
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Date **2024-05-20**
Drawn / Approved **WH / SM**

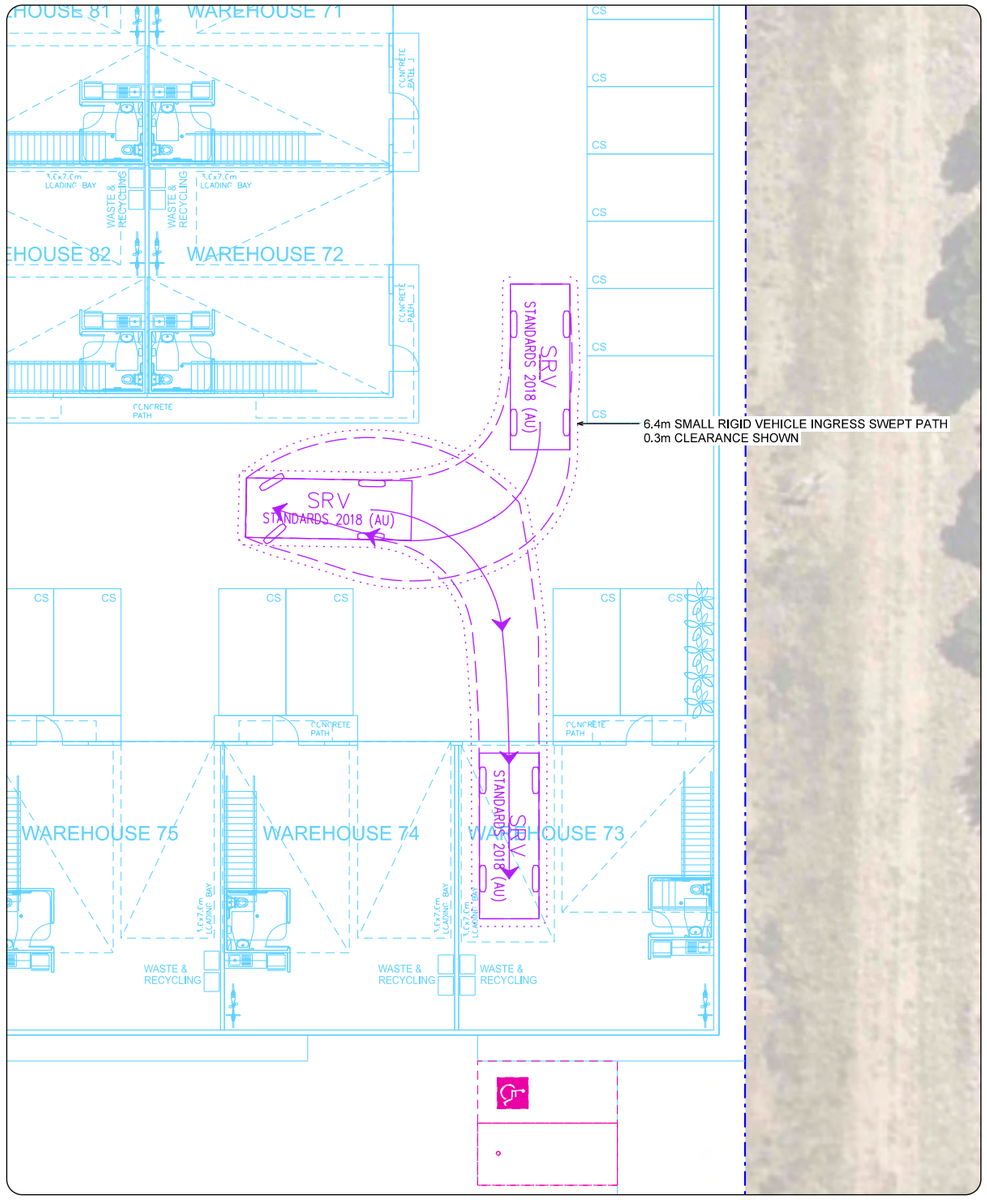
Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

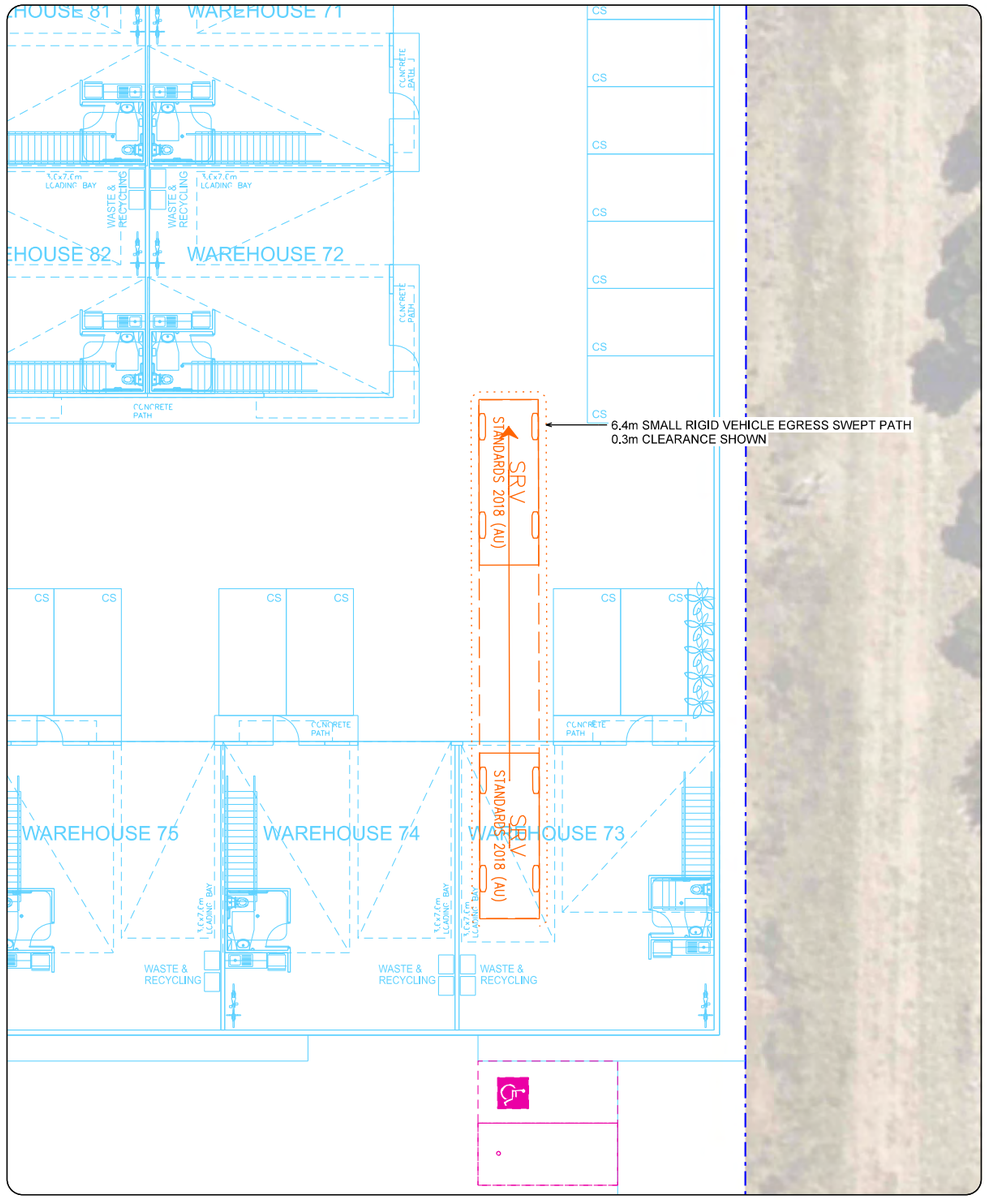
Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

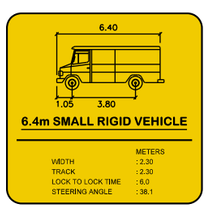
Status
PRELIMINARY

Drawing Number
IMP2403028 - DRG-01-20

Revision
B







6.4m SMALL RIGID VEHICLE

	METERS
WIDTH	: 2.30
TRACK	: 2.30
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 38.1

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SCALE
1:200 @ A3

Client
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Date **2024-05-20**
Drawn / Approved **WH / SM**

Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

Status
PRELIMINARY

Drawing Number
IMP2403028 - DRG-01-21

Revision
B

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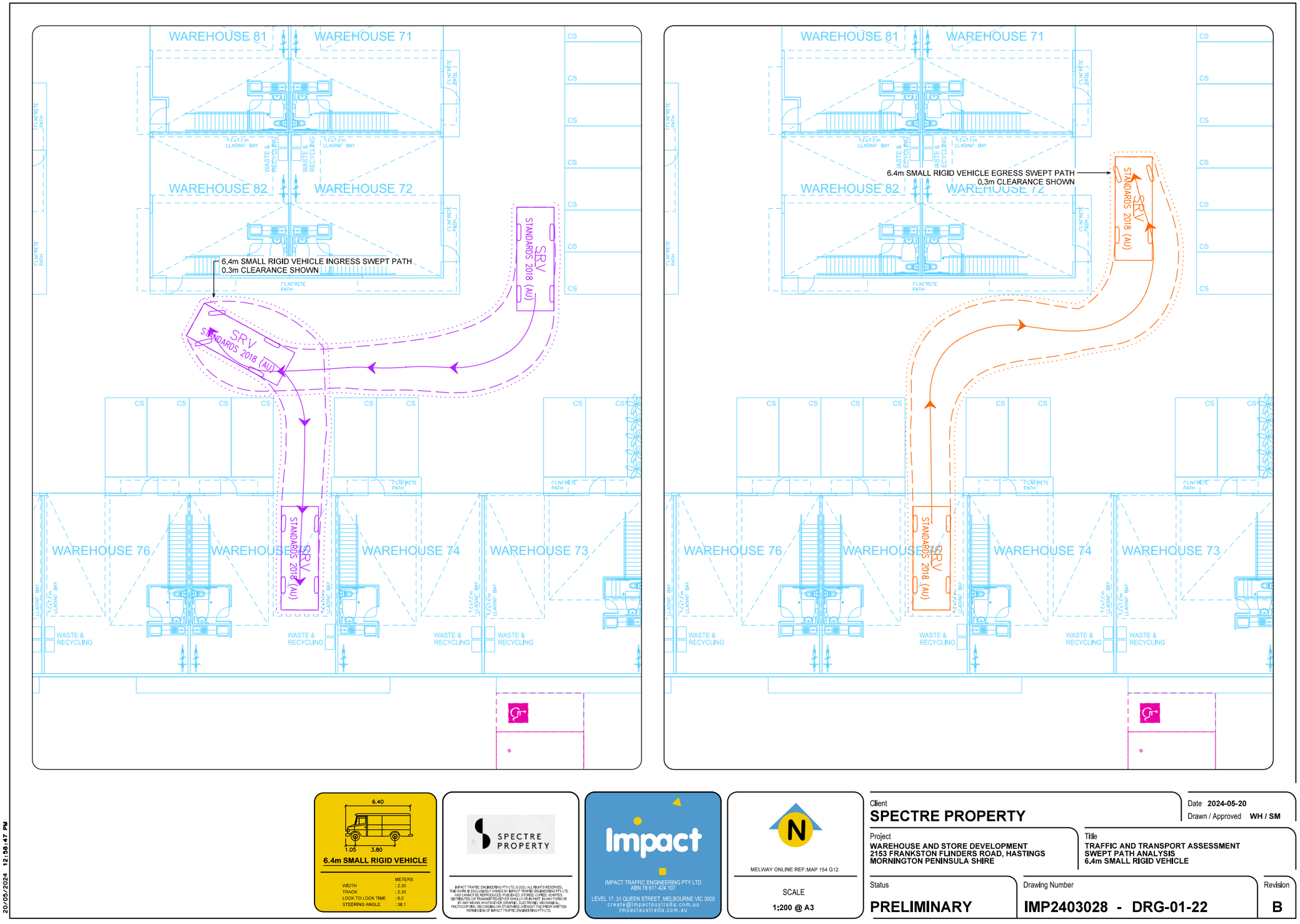

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6.4m SMALL RIGID VEHICLE

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STEERING ANGLE	: 38.1

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Client
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Date **2024-05-20**
Drawn / Approved **WH / SM**

Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

Status
PRELIMINARY

Drawing Number
IMP2403028 - DRG-01-22

Revision
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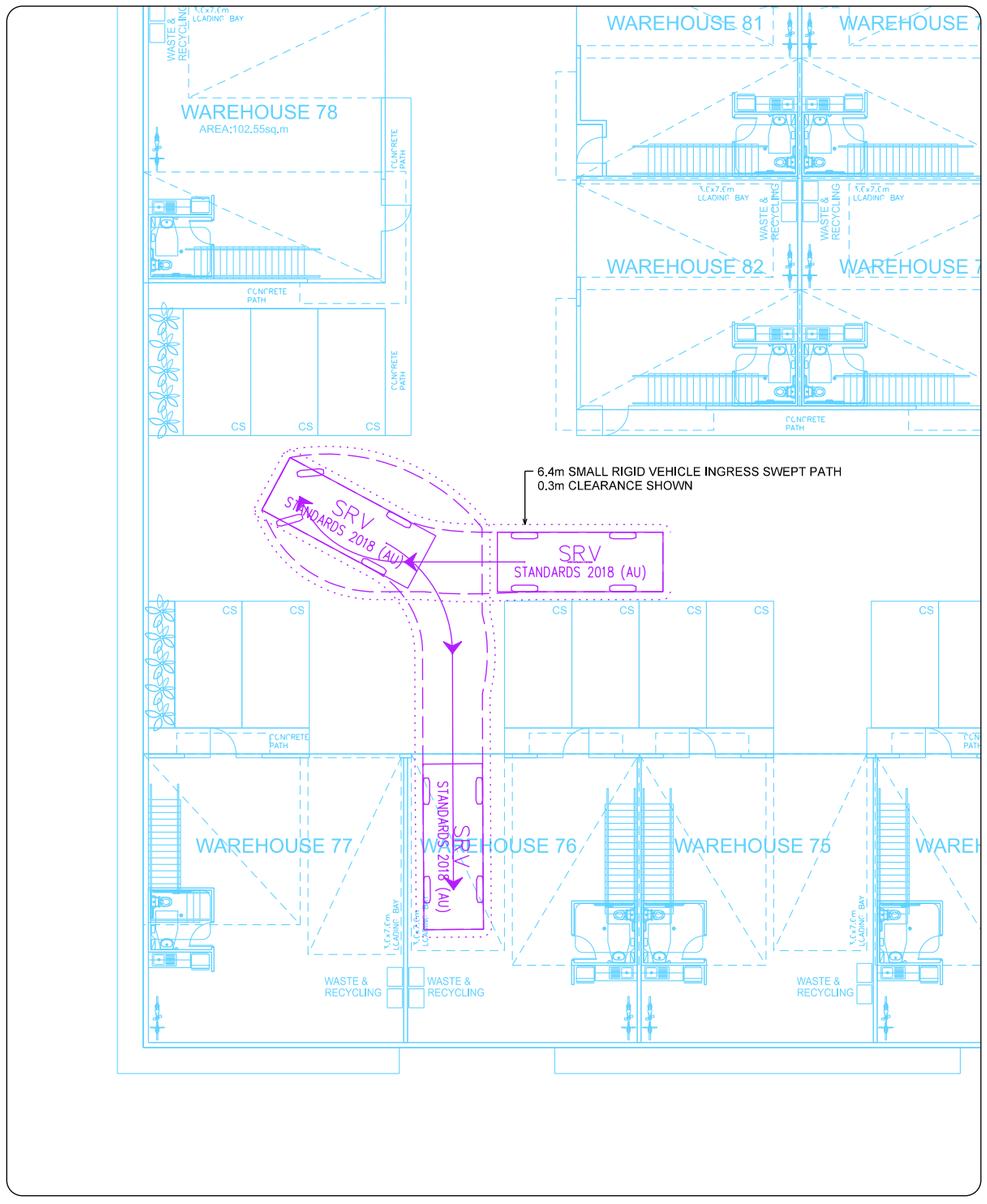

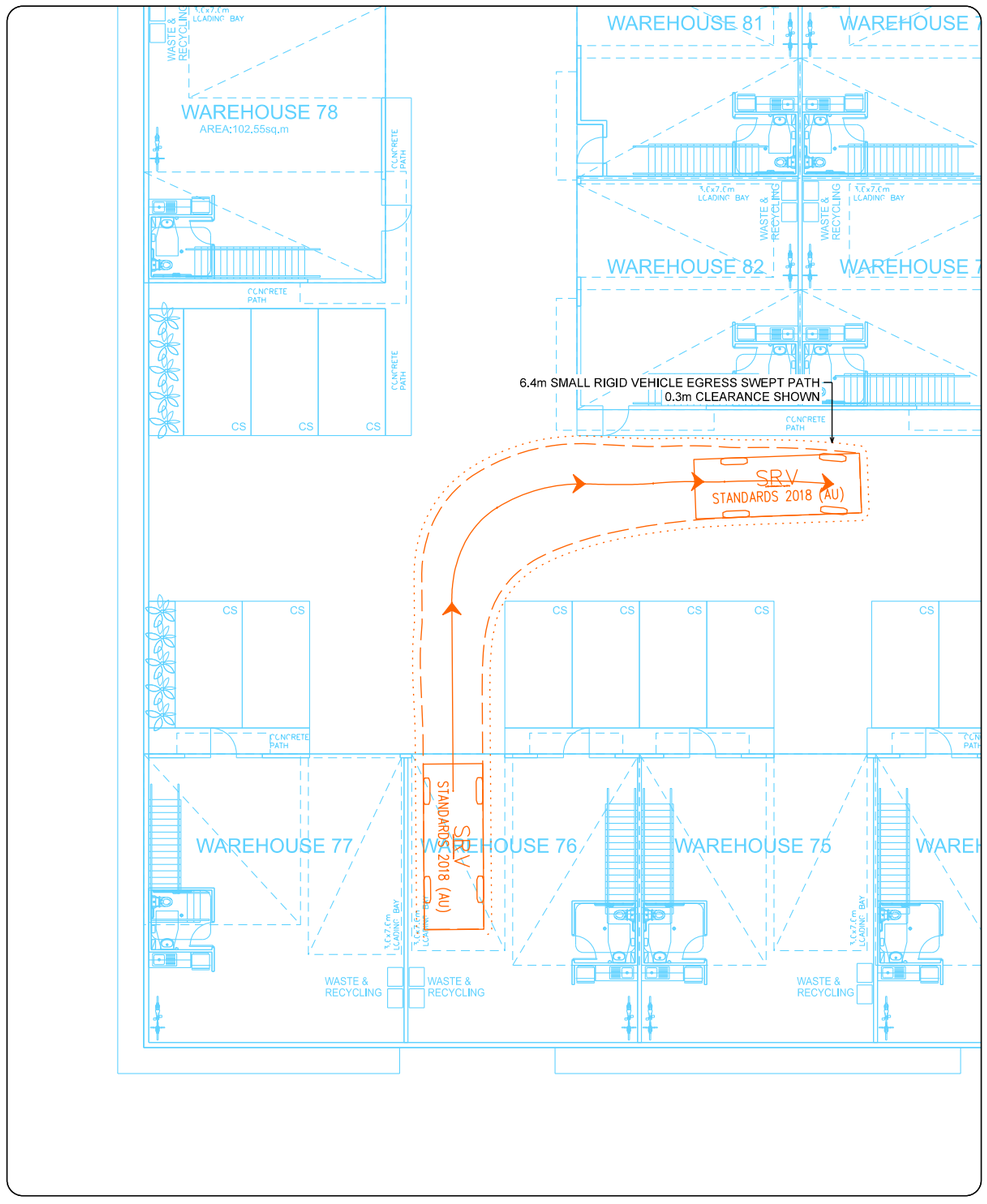

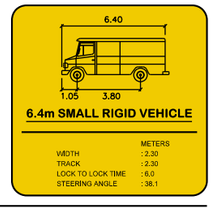

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Client
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Date **2024-05-20**
Drawn / Approved **WH / SM**

Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SMALL RIGID VEHICLE

Status
PRELIMINARY

Drawing Number
IMP2403028 - DRG-01-23

Revision
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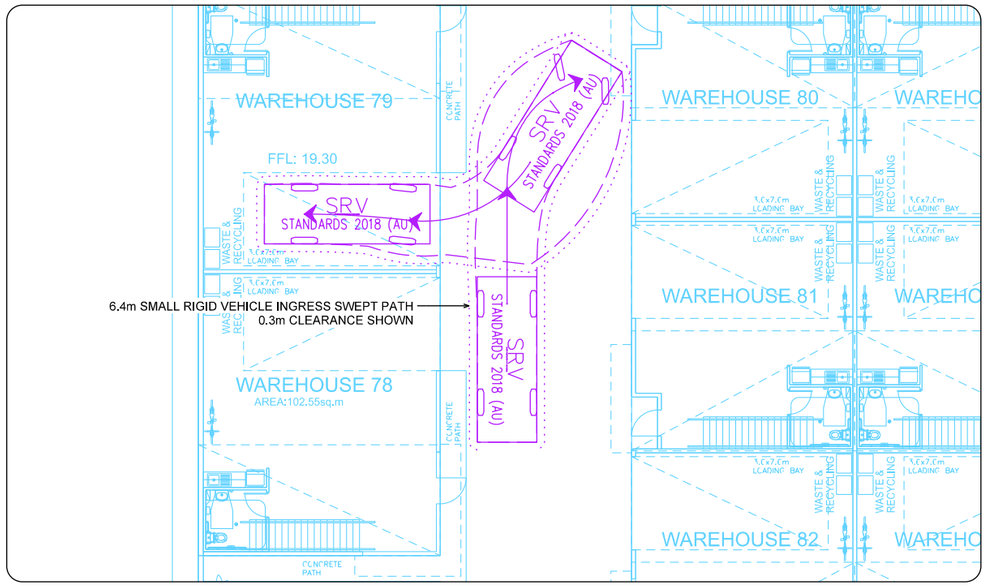

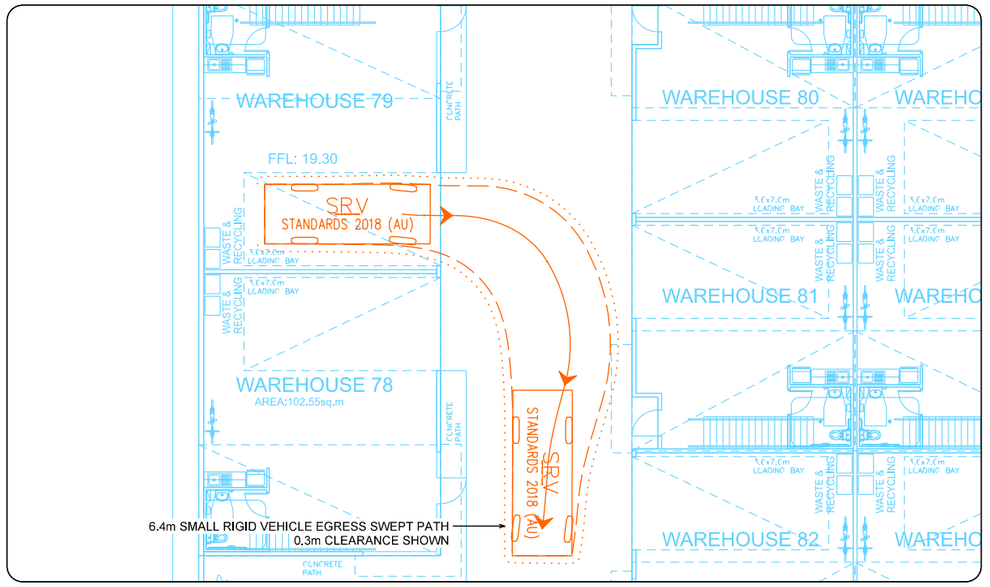

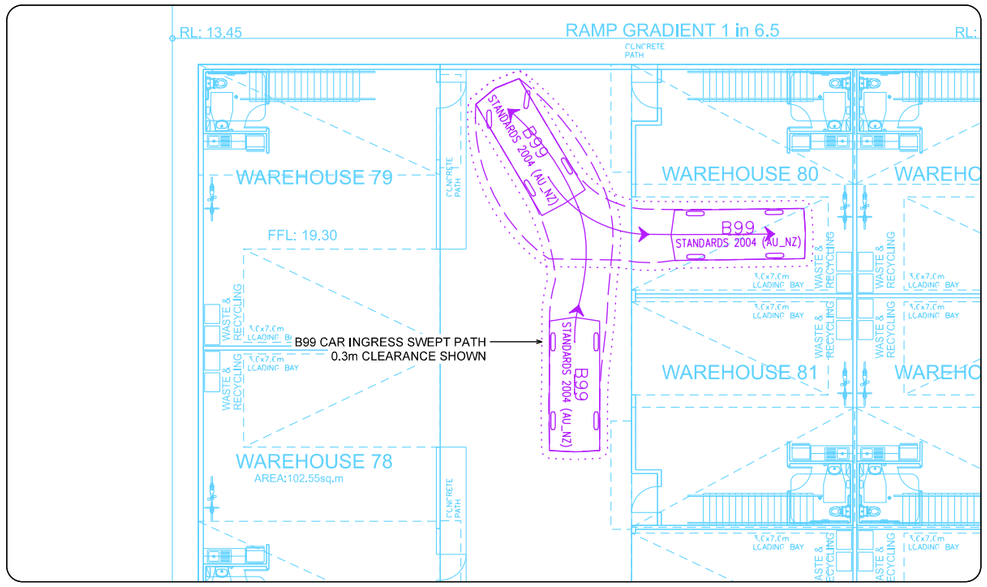

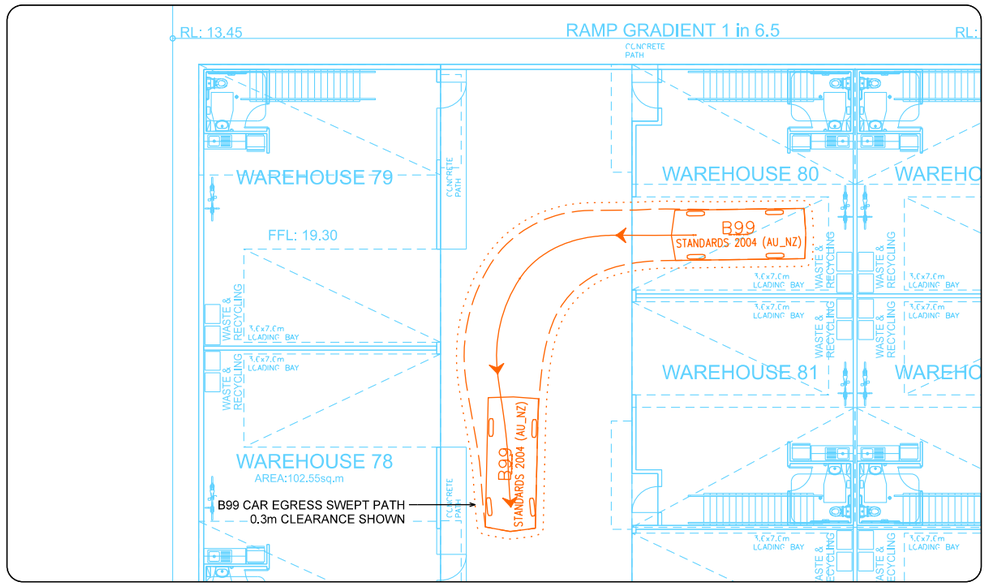

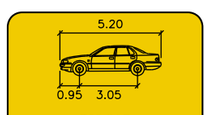

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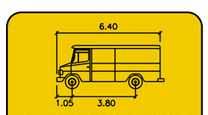

6.4m SMALL RIGID VEHICLE

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LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 38.1

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Client
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Date **2024-05-20**
Drawn / Approved **WH / SM**

Project
WAREHOUSE AND STORE DEVELOPMENT
2153 FRANKSTON FLINDERS ROAD, HASTINGS
MORNINGTON PENINSULA SHIRE

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
B99 CAR AND 6.4m SMALL RIGID VEHICLE

Status
PRELIMINARY

Drawing Number
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Revision
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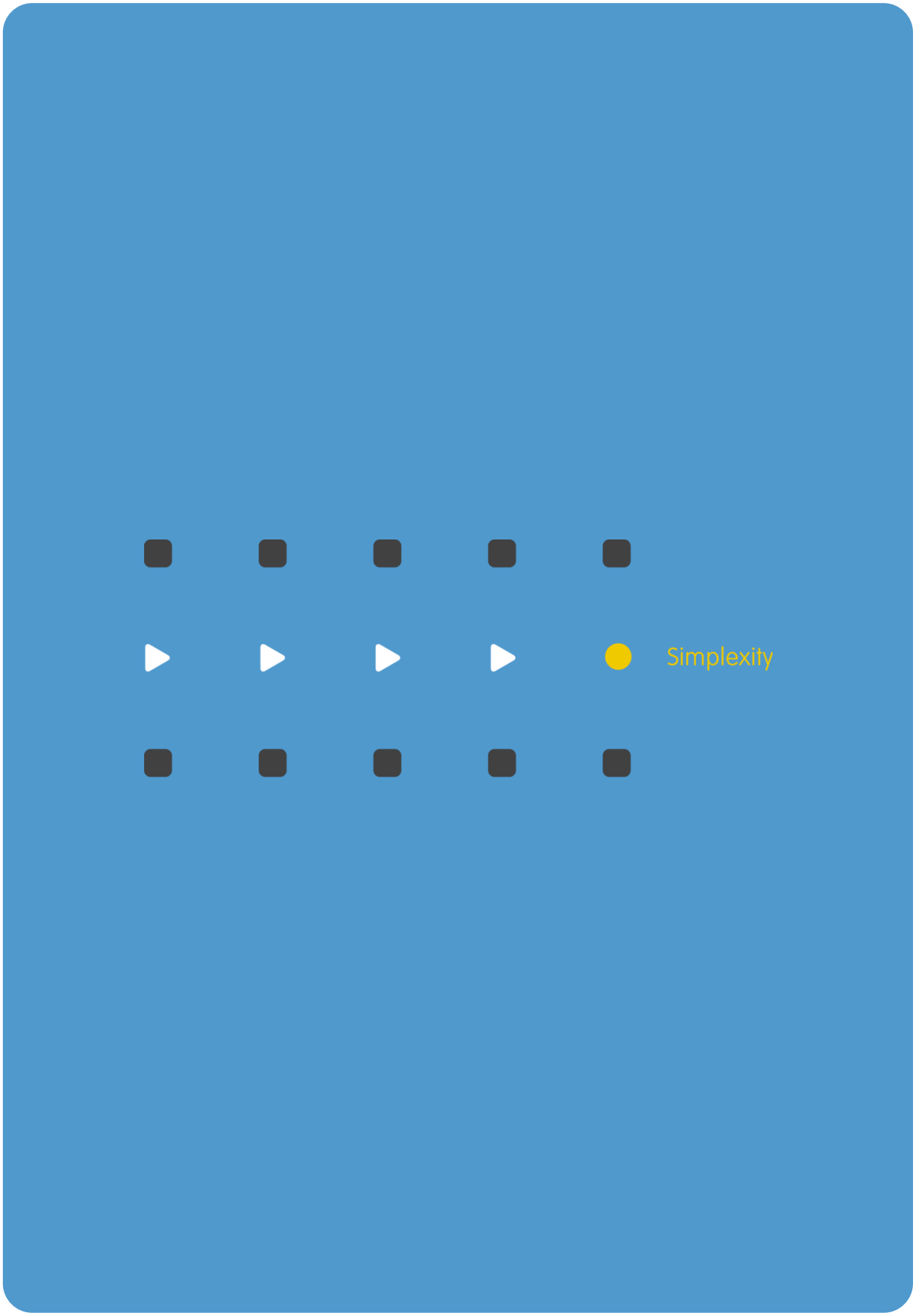
Simplexity

Proposed Industrial Development: 2153 Frankston-Flinders Road and Lot 103, 76 Reid Parade, Hastings Cultural Heritage Management Plan

AAV Management Plan Identifier: 12224
Sponsor: State Holdings Pty Ltd (ACN: 074 171 832)

Cultural Heritage Advisor and Authors:
Matthew Barker and Renee McAlister

DATE: 20th September 2012

1. Title Page

ACTIVITY:	Industrial Development
LOCATION:	2153 Frankston-Flinders Road and Lot 103, 76 Reid Parade, Hastings
LEVEL OF ASSESSMENT:	Desktop, Standard & Complex
SIZE OF ACTIVITY:	Medium
AAV PLAN IDENTIFIER:	12224
DATE OF COMPLETION:	20th September 2012
SPONSOR:	State Holdings Pty Ltd
ACN:	074 171 832
CULTURAL HERITAGE ADVISORS:	Renee McAlister & Matthew Barker
AUTHOR:	Renee McAlister & Matthew Barker

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Heritage Insight Pty Ltd would like to acknowledge and thank the following people for their assistance and participation in this study:

Aboriginal Communities:

Bunurong Land Council – Darren Symington
Boon Wurrung Foundation – Sharee Harper

Heritage Insight Staff:

Lauren Prossor – Background Research

The Sponsor:

State Holdings Pty Ltd

The Client:

Holly Patrick (Taylors)

Archaeological Investigations

Adam Deane

Aboriginal Heritage Act 2006
Section 65

Cultural Heritage Management Plan – Notice of Approval

CHMP NAME:	***Proposed Industrial Development: 2153 Frankston-Flinders Road and Lot 3, 76 Reid Parade, Hastings***		
CHMP NUMBER:	12224		
SPONSOR:	State Holdings Pty Ltd	*ACN/ABN:*	074 171 832
Cultural Heritage Advisor(s):	Matthew Barker and Renee McAlister		
Author(s):	Matthew Barker and Renee McAlister		
Cover date:	20 September 2012	*Pages:*	i to viii and 106 numbered pages
Received for approval:	20 September 2012		

TO BE COMPLETED BY THE SECRETARY (OR DELEGATE) I have considered the Evaluation Report for this CHMP and:	Yes	No
I am satisfied that the CHMP has been prepared in accordance with the standards prescribed for the purposes of section 53 (in the Aboriginal Heritage Regulations 2007 and the Approved Form).	✓	
I am satisfied that the CHMP adequately addresses the matters set out in section 61.	✓	
In considering this application, I consulted with and considered the views of Aboriginal persons or bodies I considered relevant to the application.	✓	
I have given proper consideration to any relevant human rights	✓	

I, Steven Avery, Acting Deputy Director, Aboriginal Affairs Victoria, acting under authority delegated to me by the Secretary, Department of Planning and Community Development, and pursuant to section 65(2) of the *Aboriginal Heritage Act 2006* hereby **approve / refuse to approve** this cultural heritage management plan:

Signed: .....
STEVEN AVERY

Dated: 21.9.12.

- This notice of approval should be inserted after the title page and bound with the body of the management plan.
- The recommendations in this management plan are now compliance requirements. Officers from the Department of Planning and Community Development may attend the subject land to monitor compliance with the recommendations.

Disclaimer

The information contained in this CHMP has been compiled from the standard heritage database sources and is accurate as far as the Heritage Insight Pty Ltd is aware. However, within the timeframes available for technical heritage reporting it is not possible to carry out comprehensive research of all published or unpublished manuscripts, journals, maps or oral history which may pertain to the study area. No responsibility can be taken for errors or omissions in primary and secondary source material cited in this report. Any opinions expressed in this report are those of the Heritage Insight Pty Ltd and do not necessarily represent those of State Holdings Pty Ltd. Heritage Insight Pty Ltd has endeavoured to actively consult with representatives of Indigenous community groups who are, to the best of our knowledge and advice, the legal and proper representatives of the local Indigenous community. The consultants cannot, however, be held responsible for opinions or actions which may be expressed by dissenting persons or organisations. This CHMP has been prepared to comply with the Approved Form Under Clause 65(a) of the *Aboriginal Heritage Regulations 2007* "Aboriginal Cultural Heritage Management Plan for the Purposes of the *Aboriginal Heritage Act 2006*". However, Heritage Insight Pty Ltd cannot be responsible for any changes in policy on the part of the Victorian Government, its agencies, or Registered Aboriginal Parties in the period since lodging a notification of intent to prepare a CHMP.

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2. Executive Summary

The Activity, Location and Level of Assessment

This CHMP has been prepared for the Sponsor: State Holdings Pty Ltd. The Activity Area consists of an area of land which is 16765m² and encompasses 2153 Frankston-Flinders Road and Lot 103, 76 Reid Parade, Hastings, Parish of Tyabb, Shire of Mornington. The proposed activity to be conducted in the Activity Area is the construction of light industrial units and car parks.

This Cultural Heritage Management Plan (CHMP) is a mandatory CHMP because:

- All of the proposed activity occurs in an area of Cultural Heritage Sensitivity (*Aboriginal Heritage Regulations 2007, Division 1, 6 (a)*); and

- The proposed activity is a high impact activity (*Aboriginal Heritage Regulations 2007, Division1, 46.*

The study area is within 200m of a watercourse, namely Warragine Creek, and therefore falls within an area of cultural heritage sensitivity as defined in the *Aboriginal Heritage Regulations 2007* Section 26:

(1) The subdivision of land into three or more lots is a high impact activity if—

(a) the planning scheme that applies to the activity area in which the land to be subdivided is located provides that at least three of the lots may be used for a dwelling or may be used for a dwelling subject to the grant of a permit; and

(b) the area of each of at least three of the lots is less than eight hectares.

(2) The subdivision of land into two or more lots in an industrial zone is a high impact activity.

(3) In this regulation, industrial zone has the same meaning as in the VPP.

This CHMP was carried out by means of desktop and standard assessment.

A Glossary of Terms is included as Appendix 1.

E2 Results of the Assessment

Desktop Assessment

A site prediction model is intended to be used as a guideline to designing the field survey and as an indication of the types of archaeological sites which may occur in a given area. The site prediction model is then tested against the results of the field survey.

A review of the environmental data relevant to human settlement and the ethnographic and archaeological data relevant to the local area indicates that for the Activity Area, the following applies:

- The Activity Area is located within an area of cultural heritage sensitivity and the proposed future works are to build 32 factory and office units with car parks. The construction of these are classified as high impact activities;

- The Activity Area is located on the landform 'Plain above flood level (relative relief <9m);

- The soil across the site is identified as yellow duplex soils These soils are approximately 40-50cm deep and sits on Baxter Sandstone;

- The vegetation in the Activity Area is classified as Grassy Woodland (EVC 175) of large eucalypts, shrubs, grasses and reeds;

- A range of birds and small mammals would have been present in the region of the Activity Area and would have been utilised by Aboriginal people. Animals in this region were abundant in the surrounding area;

- Indigenous people have occupied the landscape around Melbourne for over 40,000 years and have been recorded in early settler accounts as having camped throughout the region the Activity Area is located in;

- One previously recorded Indigenous cultural place is located within 500m of the Activity Area. There are seven Indigenous places located within 2km. The former is a surface artefact scatter on the banks of Warragine Creek;

- Sullivan's survey of the Mornington Peninsula (1981) located few sites around the Western Port Bay coastline;

- A review of the historic land use of the Activity Area and a review of historic aerial photographs indicated that there had been no major land disturbance to the Activity Area itself, however Lot 103/76 Reid Parade was utilised as an orchard prior to 1957; and at some point prior to 1970 the trees were removed and the land ploughed. Tree removal would have caused severe ground disturbance to the thin soils and would have most likely destroyed any cultural material. 2153 Frankston-Flinders Road however formerly contained a house and gardens and therefore is unlikely to be severely disturbed and has some potential to contain deposits of Aboriginal cultural material.

Standard Assessment

The Activity Area can be split into three sections defined by vegetation and disturbance characteristics:

1. The western section of the Activity Area fronting 2153 Frankston-Flinders Road was characterised by series of distinct ploughed furrows aligned north-south (Plates 1-2 and 6);

2. The north and centre eastern section of the Activity Area (2153 Frankston-Flinders Road) was characterised by dense grass with two small stands of immature eucalypts (Plates 3-4 and 6);

3. The south section of the Activity Area comprising Lot 103/76 Reid Street was characterised by dense stands of blackberries and weeds indicating considerable ground disturbance (Plates 7-9) has taken place. Other features indicating ground disturbance was indicated by buried masonry (Plate 9), mounded soil (Plate 8), a very uneven ground surface and exposed clay soils with gravel which are considered to be the underlying basal layer from 10-20cm (Matic, A 2009) and shown in the railway embankment (Plate 5).

No mature indigenous trees were located within the Activity Area. The vegetation consisted of dense grass, blackberries/weeds and immature eucalypts. It is likely that the Activity Area has been cleared of vegetation at some time in the past, and the ploughed furrows are likely evidence of past agricultural activities taking place on the property. Aerial photographs have revealed that the Lot 103/76 Reid Parade was formerly utilised as an orchard and later ploughed, whereas 2153 Frankston Flinders Road comprised a house and landscaped gardens.

The desktop assessment indicated that the main industry in the region of the Activity Area during early European settlement was stock grazing and it may have been cleared for this purpose.

The site prediction model indicated that the Activity Area was located on the landform 'Plains above flood level (relative relief <9m)', which is known to potentially contain Aboriginal cultural material (see Section 4.1.3). Within this region, the cultural material was identified as surface and sub-surface artefact scatters.

No Indigenous cultural heritage was identified on the surface within the Activity Area, though poor ground surface visibility constrained the effectiveness of the field survey. It was not possible to ascertain whether there may be sub-surface cultural heritage or whether the small mound in the northwest section of the Activity Area was natural or not.

The desktop assessment concluded that there was a very low probability that Indigenous cultural heritage would occur within the Activity Area, though there was some potential due to the access to resources offered by the location. The standard assessment confirmed the conclusions of the desktop assessment but was unable to assess the presence or absence of any sub-surface cultural material. This would need to be verified by means of a complex assessment, which would also confirm whether or not the soils have been disturbed to depth.

Complex Assessment

The Complex Assessment comprised one 1x1m test pit, eleven 200x60cm backhoe transects and ten 40x40cm shovel probes. The Complex Assessment confirmed the results of the Standard Assessment and identified that the north, south, eastern and central sections of the Activity Area had all be subject to significant ground disturbance. These areas were full of fill, construction rubble and modern rubbish. The western section of the activity area contained areas of introduced fill and was also disturbed, however not the extent that the rest of the Activity Area. This area was ploughed and furrowed. Two artefacts were located in the top 10cm of soil. These artefacts were not considered to be *in situ* due to the disturbed nature of the area. Shovel probe radials

revealed no further cultural material and the two artefacts were registered as isolated artefacts VAHR 7921-1427 and 7921-1428.

Recommendations

No management measures are required prior to the activity commencing: harm cannot be avoided due to economic viability, the construction methodology, lack of research potential, effective salvage during the complex assessment and lack of scientific or cultural significance. The following recommendations have been presented.

Management Recommendation 1:

As discussed in Section 9, this management plan allows for VAHR 7921-1427 and 7921-1428 to be harmed by the proposed activity. This is due to the sites being isolated artefacts located within a disturbed context. No specific measures are required to manage these Aboriginal places prior to and during the activity. It is the recommendation of this plan that no further works are necessary to identify or protect Aboriginal cultural heritage relating to this site.

Management Recommendation 2:

This recommendation relates to the post activity treatment of the artefacts associated with VAHR 7921-1427 and 7921-1428. The artefacts have been removed from the site and analysed during this assessment by the cultural heritage advisor. The artefacts must be retained at the offices of Heritage Insight Pty Ltd until the site works have been completed.

The following treatment must be applied to the stone artefacts removed from VAHR 7921-1427 and 7921-1428.

- The artefacts will be catalogued and placed in a durable container, together with details of provenance and a copy of the artefact catalogue and management plan.
- The artefacts must be re-buried at a location within the Activity Area agreed upon in consultation with the relevant Aboriginal community representatives.
- It is suggested by the sponsor and the cultural heritage advisor that reburial within the areas of the development designated for landscaping purposes would be a good location, these garden areas are shown on Map 2.
- The location of the reburied artefacts must be recorded by the cultural heritage advisor and recorded with the Victorian Aboriginal Heritage Register (VAHR).
- The cost of reburial must be borne by the Sponsor.
- Reburial must occur within three months of the final building inspection under the building permit.

Management Recommendation 3:

In order to provide a system for notification of the discovery of Aboriginal cultural heritage during construction works, it will first be necessary to provide an induction to any future project managers and construction workers about the discovery of Aboriginal cultural heritage on site. There will also need to be a system of reporting any possible

Aboriginal cultural heritage items which are discovered which must be built into any development or environmental management plan (EMP) for the site. Some recommendations for notifying the discovery of Aboriginal cultural heritage are contained below.

- A site induction or inductions should be held with project managers and any construction workers on site. The purpose of the inductions will be to describe items of Aboriginal cultural heritage to personnel engaged in construction, to create an awareness of their cultural value and to inform personnel about the procedure for reporting suspected Aboriginal cultural heritage.

  This induction should be presented by a cultural heritage advisor in association with a relevant Aboriginal person or a RAP representative, if a RAP has been appointed by the time works commence.

Management Recommendation 4:

The contingency plans contained in Section 11 of this report form part of the Cultural Heritage Management Plan and *must* be incorporated into the development or Environmental Management Plan for the project. A copy of this management plan must be held on site at all times.

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Part 1 - Assessment

1. Introduction

Reasons for Preparing a CHMP

This Cultural Heritage Management Plan (CHMP) is a mandatory CHMP because:

- All or part of the proposed activity occurs in an area of Cultural Heritage Sensitivity (*Aboriginal Heritage Regulations 2007, Division 1, 6 (a)*); and
- The proposed activity is a high impact activity (*Aboriginal Heritage Regulations 2007, Division1, 6(b)*).

Part of the study area is within 200m of a named waterway; Warragine Creek and therefore falls within an area of cultural heritage sensitivity as defined in the *Aboriginal Heritage Regulations 2007*r23.

The use of land for a factory and office development is a high impact activity as defined in the *Aboriginal Heritage Regulations 2007* r46.

The Activity Area covers a stretch of land which is 1.6ha (16765m^2), and encompasses 2153 Frankston-Flinders Road (Vol 10968, Fol 674) and Lot 103, 76 Reid Parade (Vol11032, Fol 660), Hastings, Parish of Tyabb, Mornington Peninsula Shire.

Sponsor for the CHMP

The Sponsor for this CHMP is State Holdings Pty Ltd.

Notice of Intention to Prepare a CHMP.

A Notification of the intent (NOI) to prepare this CHMP, as required by Section 54 of the Act was submitted to the Secretary, Aboriginal Affairs Victoria (AAV) on the 31th of May 2012. A copy of the NOI is attached as Appendix 1. AAV replied to the NOI on the 21^{h} of June 2012 and allocated this project with the CHMP Number 12224.

This work initially began as a cultural heritage assessment in March 2012. The cultural heritage assessment was completed to the standard of a CHMP for the Desktop and Standard Assessment. The findings of the Desktop and Standard Assessment recommended that a Complex Assessment take place and the project required a CHMP to be conducted. As such the NOI was submitted prior to the commencement of the Complex Assessment.

At the time the notice of intent to prepare a CHMP was submitted to the Secretary, no Registered Aboriginal Parties (RAP(s) were present for the Activity Area. Pursuant with

Section 65 of the Act, the Acting Director informed the Sponsor that AAV would evaluate the CHMP on submission.

Name, Qualifications and Experience of Cultural Heritage Advisors

The cultural heritage advisors who conducted this CHMP are Matthew Barker, BArch (Hons) and Renee McAlister BA Hons (Archaeology), representing Heritage Insight Pty Ltd. Matthew has formal qualifications from La Trobe University and has seven years experience working in the field of Indigenous Archaeology. Renee has formal qualifications from La Trobe University and has four years experience working in the field of Indigenous Archaeology.

Matthew Barker conducted the initial Cultural Heritage Assessment which included the Desktop and Standard Assessment.

Renee McAlister conducted the Complex Assessment.

Location of the Activity Area

The property encompasses 2153 Frankston-Flinders Road (Vol 10968, Fol 674) and Lot 103, 76 Reid Parade (Vol11032, Fol 660), Hastings, Parish of Tyabb, Mornington Peninsula Shire which covers approximately 16765m^2(Map 1).

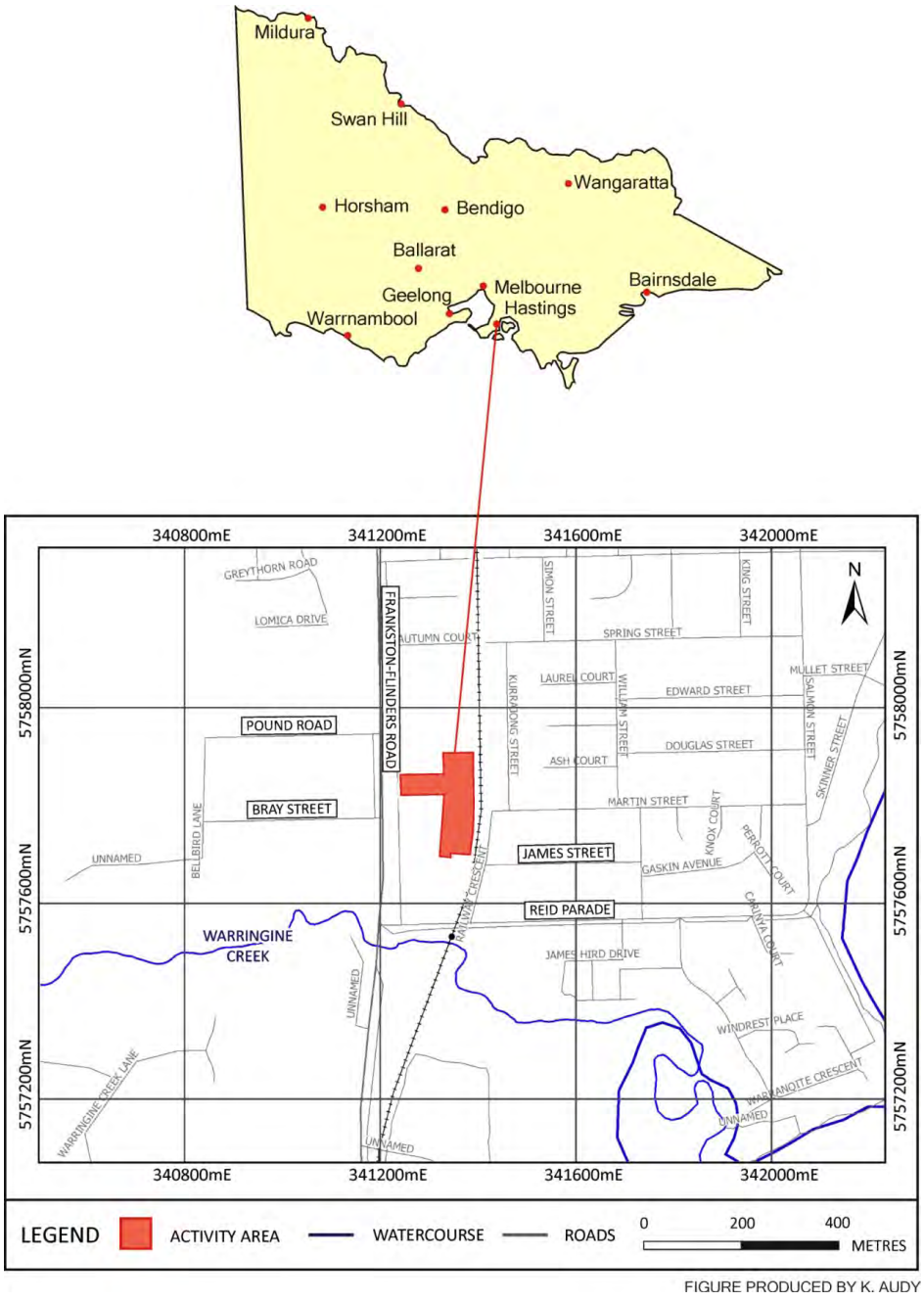


FIGURE PRODUCED BY K. AUDY

Map 1: Location of Activity Area

2153 Frankston-Flinders Road (Vol 10968, Fol 674) and Lot 103, 76 Reid Parade (Vol11032, Fol 660), Hastings, Parish of Tyabb, Mornington Peninsula Shire.

Land Owners

The land is currently owned by State Holdings Pty Ltd (ACN: 074 171 832)

RAPs with Responsibility for the Activity Area

At present there is no Registered Aboriginal Party (RAP) or RAP(s) with the responsibility for the Activity Area. AAV is currently administering the region until a Registered Aboriginal Party (RAP) is appointed, in accordance with Section 54 of the *Aboriginal Heritage Act (2006)*. The Secretary is evaluating the plan under s.65 (1) (b) (i).

2. Activity Description

The proposed activity provides plans for a light industrial office and factory development, and car parks with gardens of 2776 m^2 (Map 2) comprising 32 individual units. Landscaping will also be undertaken as a part of the works.

2.1 Statement of Potential Impacts

The activity itself is a phased construction to develop the land for a factory warehouse with a car park. This will involve the following:

- Stripping (removing) of the topsoil, utilising heavy machinery to a depth of 7.5-10cm. The topsoil is stockpiled for later use in landscaping;
- Excavation for foundations of the factories/warehouses;
- Installation of services (electricity, telecommunications) utilising heavy machinery. As the trench excavations are relatively shallow and narrow, disturbance either side of the trench is of minimal impact; and
- Landscaping works.

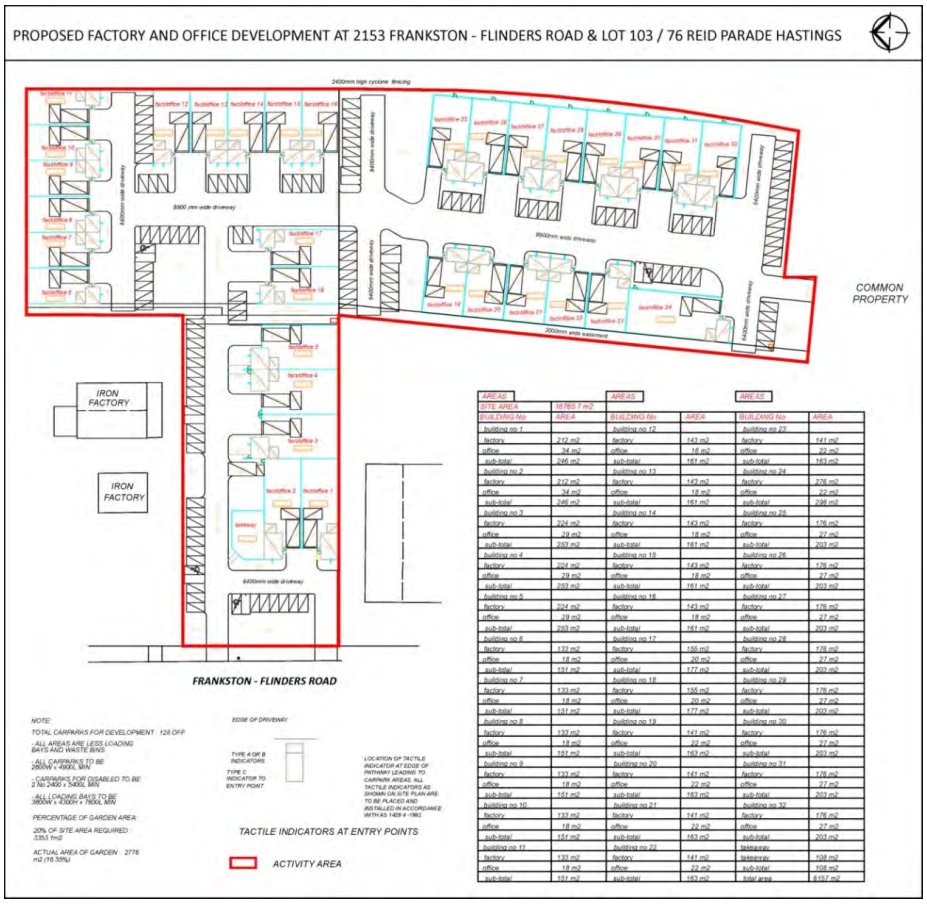
A summary of typical trench widths and depths of excavation of each construction activity is provided below (Table 1):

Table 1: Typical Trench Widths and Depths for Each Construction Activity

Activity	Width of Trench (m)	Depth Range (m)
Fill	n/a	1.0
Foundations (through fill)	0.3 – 0.4	0.6 – 2.0
Drainage	0.9 – 3.0	1.0 – 3.0
Sewer Reticulation	0.9 – 2.0	1.0 – 3.0
Water Reticulation	0.3 – 1.0	0.8 – 1.0
Electricity	0.3 – 1.0	0.6 – 1.0
Telecommunications	0.3 – 1.0	0.3 – 0.6
Gas	0.3 – 1.0	0.6 – 0.9

Landscaping Works

Landscaping works will be conducted with no impact to ground surface due to the filling of the land. Landscaping within the designated open spaces will typically be in the form of garden bed planting, tree planting and re-grassing with indigenous plants and grasses. All soil disturbed by the proposed works will be reused on the site.



Map 2: Development Plan of Activity Area

3. Extent of Activity Area Covered by the CHMP

The Activity Area is covered in dense vegetation with ploughed furrows evident in the western portion of the property, several trees in the north and dense weeds and scrub in the south of the Activity Area. There are industrial units to the north, west and south. The eastern boundary is bounded by Railway Crescent and residential subdivisions.

The extent of the Activity Area is shown in Map 3.

FIGURE PRODUCED BY K. AUDY

Map 3: Aerial Photograph of Activity Area.

4. Documentation of Consultation

A Notification of the intent (NOI) to prepare this CHMP, as required by Section 54 of the Act, was submitted to the Secretary, Aboriginal Affairs Victoria (AAV) on the 31th of May 2012. A copy of the NOI is attached as Appendix 1. AAV replied to the NOI on the 21st of June 2012 and allocated this project with the CHMP Number 12224.

At the time the notice of intent to prepare a CHMP was submitted to the Secretary, no Registered Aboriginal Parties (RAP(s) were present for the Activity Area. Pursuant with Section 65 of the Act, the Acting Director informed the Sponsor that AAV would evaluate the CHMP.

This project was initially begun as a Cultural Heritage Assessment (CHA), and the desktop and standard were completed as part of the Cultural Heritage Assessment. The recommendation of the CHA was that the project be done as a CHMP and that a Complex Assessment be undertaken.

The Desktop and Standard Assessments were conducted in March 2012. As this was not done as a CHMP, the Aboriginal communities were not consulted until the project became a CHMP.

4.1 Assessment Consultation

The project area does not currently lie within the area of a registered Aboriginal party.

As no RAPs have yet been appointed for the Activity Area, representatives of Bunurong Land Council Aboriginal Corporation and the Boon Wurrung Foundation were all contacted and invited to participate in the standard and the complex assessments. The Bunurong and Boon Wurrung are considered to be traditional owners of the land.

With regard to the latter; both the Bunurong Land Council Aboriginal Corporation (BLCAC) and Boon wurrung Foundation Ltd (BWFL) applied to become Registered Aboriginal Parties (RAPs) for the region encompassing the Activity Area. On 27 August 2009, the Victorian Aboriginal Heritage Council decided not to register either party as a RAP under the Aboriginal Heritage Act 2006. However, in their decision, the Council stated that they recognise members of both the BWFL and BLCAC as Traditional Owners. As such the Council expects that both the BWFL and BLCAC to be consulted for the purposes of cultural heritage management and protection for the region encompassing the Activity Area. As a matter of best practice, both groups were contacted with regard to the current project.

4.2 Participation in the Conduct of the Assessment

The Complex Assessment was carried out on the 18th and 19th June, 2012. The Boon wurrung Foundation and the Bunurong Land Council Aboriginal Corporation were contacted on the 31st May 2012 and invited to send representatives.

Sharee Harper from the Boon Wurrung Foundation and Darren Symington from the Bunurong Land Council attended on both days.

4.3 Management Consultation

As Indigenous representatives had not participated in the Standard Assessment, and on-site meeting between the archaeologist and the field representatives was conducted at the beginning of fieldwork for the Complex Assessment. The findings of the Desktop and Standard Assessments were discussed and the proposed methodology for the Complex Assessment was presented. Both Indigenous representatives expressed satisfaction with the proposed methodology.

Throughout the Complex Assessment, the Indigenous representatives were consulted on placement of the test pit, shovel probes and backhoe transects.

At the completion of the Complex Assessment, initial management recommendations were discussed, as was the nature and extent of Aboriginal sites located during the Complex Assessment. Both parties expressed satisfaction with the level of sub-surface testing that had taken place.

5. Desktop Assessment

5.1 Report on the Results of the Desktop Assessment

In accordance with the *Aboriginal Heritage Regulations 2007*, this section contains the results of the desktop assessment.

5.1.1 Methodology for Desktop Assessment

The aim of the desktop assessment was to produce an archaeological site prediction model to assist in the design of the fieldwork, the interpretation of the fieldwork results, the assessment of cultural significance and the design of the management recommendations. The desktop assessment involved a review of:

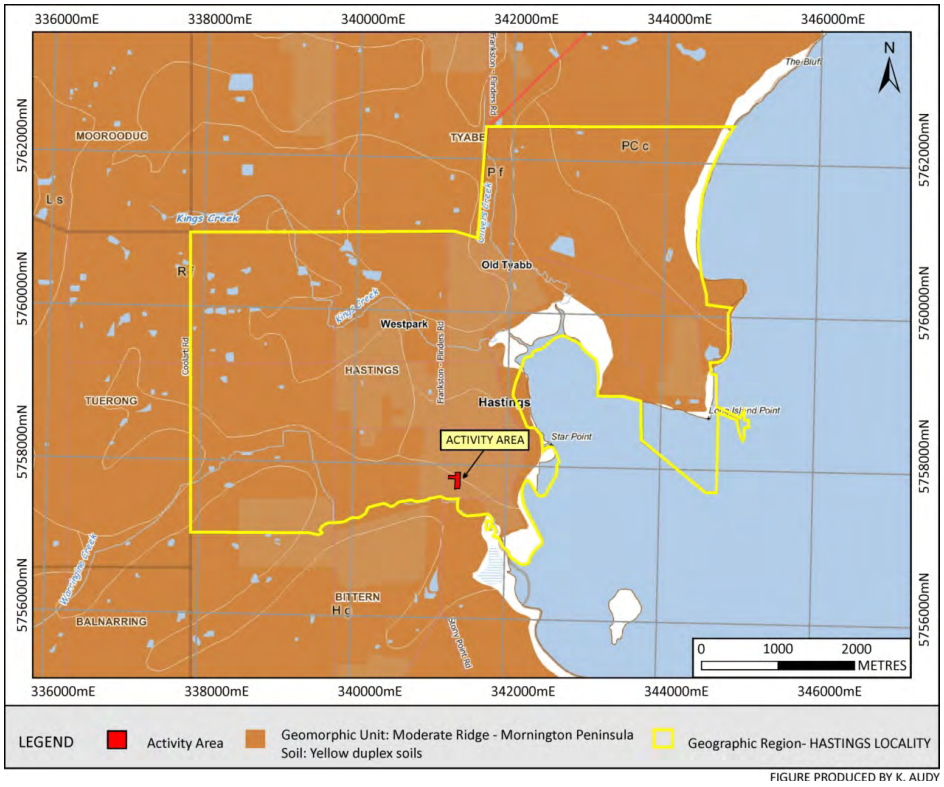
- Standard ethnographic sources to identify the likely traditional owners and a review of any written and oral local history regarding Indigenous people in the area;
- Environmental resources available to Indigenous people within the region of the Activity Area;
- The site registry at AAV and previous archaeological studies to identify any previously registered Indigenous archaeological sites either within or surrounding the Activity Area and the results of previous archaeological assessments;
- The land-use history of the Activity Area, in particular evidence for the extent and nature of past land disturbance; and
- The landforms or geomorphology of the Activity Area and identification and determination of the geographic region of which the Activity Area forms a part.

This information was used to produce an archaeological site prediction model (Section 5.1.10). The site prediction model assists in determining the type of archaeological sites which may potentially occur within the Activity Area, the possible contents of these sites, the possible past use of the landscape by Indigenous people and the likely extent of ground disturbance to archaeological sites. The information provided by the site prediction model is used constructively in designing the survey strategy by, for example, allowing the field team to target areas which have a high probability of containing archaeological sites. However, areas or landforms that were assessed as having a low probability of containing Indigenous archaeological sites are also assessed in order to test the effectiveness of the site prediction model.

5.1.2 The Geographic Region

The geographic region of the Activity Area is the locality of Hastings. The extent of the Activity Area within the geographic region of Hastings is shown in Map 4.

The archaeology of the geographic region is quite varied across its extent as Hastings extends away from the coastal region towards the west into inland zones.



Map 4: Geographic Region in Which the Activity Area is Situated

5.1.3 Aboriginal Places in the Geographic Region

A search of the Victorian Aboriginal Heritage Register (VAHR) for sites and reports relating to the Activity Area was undertaken on 6th of March 2012. There are only seven Aboriginal Places within the geographic region comprising 5 artefact scatters, a subsurface cultural deposit and an object collection. There is one place located within 500m of the Activity Area (Table 2). This consisted of a surface artefact located on the landform 'Plain above flood level (relative relief <9m)' within approximately 20m of Warragine Creek. There is a wide range of raw materials identified in these sites.

Table 2: Table of Previously Recorded Aboriginal Cultural Heritage Places Within500m of the Activity Area

VAHR Place Identification	Place Type	Place Contents	Proximity to Freshwater	Landform
7921-0419 Warragine Creek 1	Surface Artefact	One silcrete artefact	20m	Plain above flood level (relative relief <9m)

5.1.4 Previous Work in the Geographic Region

Regional Studies

A review of the reports and Cultural Heritage Management Plans on the Victorian Aboriginal Heritage Register (VAHR) indicated that no previous reports have been completed in relation to the Activity Area. One regional study of the Mornington Peninsula is relevant to the Activity Area and is summarised below.

An Archaeological Survey of the Mornington Peninsula, Victoria (H. Sullivan 1981)

Sullivan conducted a thorough survey of the foreshores of the Mornington Peninsula over a two year period between 1979 and 1981.Sullivan surveyed a fairly wide strip of the coast back to between 100 to 300 metres inland (H. Sullivan 1981, p.45).The aim of Sullivan's survey was to locate and record a representative sample of the Aboriginal archaeological sites within her study area in order to provide a basis on which to assess site significance, and to use this survey data, in conjunction with ethno-historical research, to reconstruct the pattern of Aboriginal exploitation within the region (H. Sullivan 1981, p.43). A total of 12.8% of the coastal study areas was effectively surveyed (H. Sullivan 1981, p.58). Between Sorrento and Point Nepean, the survey was confined to a 100 metre wide coastal strip.

A total of 289 sites were located on the Mornington Peninsula, with 209 (86%) found on the ocean coasts. Site densities within these units varied between 0.19 and 7.85 per linear kilometre (H. Sullivan 1981, p.66). While average ground surface visibility was relatively low (around 10%), this was sufficient in most instances to detect some part of the large surface distributions of shell middens (H. Sullivan 1981, p.57). Highest site densities were found on the shorelines associated with extensive rock platforms on the ocean coastline.

Sullivan argued that because the sea did not reach its present level until the mid-Holocene, Aboriginal shell middens in the area were unlikely to be older than about 6,000 years BP (before present). She further suggested that because sea levels had been slightly higher between about 5,000 – 6,000 BP (see discussion below), in non-cliffed areas middens relating to this period might be found further inland than the more recent middens laid down when the coastline had achieved its present configuration (H. Sullivan 1981, p.3).

Sullivan (1981, pp.71–73) found 10 sites in the northern Western Port Bay region. All were located 1-8km from the mangrove coast. All the sites were stone artefact scatters of the microlithic tradition which dated the sites to the last 6,000 years (H. Sullivan 1981, p.72). Sullivan reported that even though these sites were within an exploitative range of

the coastal mangrove resources, there was very little evidence of this at the sites. In fact, these are only a few fragments of oyster shell in association with a lithic scatter (Bunguyan waterholes) that had an inconclusive origin (H. Sullivan 1981, pp.72–73).

Localised Studies

There were several reports on properties located within 2km of the Activity Area. Summaries of these are provided in Appendix 5.

The three Cultural Heritage Management Plans (CHMPs) that were most relevant were conducted less than 120m away from the Activity Area. Two of these studies indicated that there had been a high degree of land disturbance, in particular the importation of land fill to raise the ground level above the very moist natural silty sandy clay in the proximity of the present Activity Area. No Aboriginal cultural heritage was identified during any of the three CHMPs. Additionally, a cultural heritage assessment was conducted within the Activity Area.

160 Marine Parade Hastings: Cultural Heritage Management Plan (CHMP 10369) (Vines & Patton 2008a)

Biosis Research Pty Ltd was commissioned to undertake a Cultural Heritage Management Plan for 160 Marine Parade, Hastings. This was a mandatory plan as the property was within an area of cultural heritage sensitivity and would entail excavation through the natural soils to a maximum depth of 30cm below the natural clays.

Geotechnical testing was carried out prior to the sub-surface testing program. The geotechnical testing and sub-surface testing confirmed that the property had been heavily disturbed by land clearance, grading and land fill in the recent past. The testing indicated that the level of the land had been raised by as much as 120cm in parts of the property. Some of the land fill inclusions were reported to be very large and Test Pit A3 was discontinued as a result though it was showing the same stratigraphy as the previous pits. Below the land fill was considered to be a sterile grey silty sandy soft clay layer that was very moist. Their conclusion was that this sediment was a marine deposit. No Aboriginal or historic sites were located during the assessment and it was considered unlikely that sites would be present.

166 Marine Parade Hastings, Proposed Commercial Development: Cultural Heritage Management Plan (CHMP 10368) (Vines & Patton 2008b)

Biosis Research Pty Ltd was commissioned to undertake a Cultural Heritage Management Plan for 166 Marine Parade, Hastings. This was a mandatory plan as the property was within an area of cultural heritage sensitivity and would entail excavation through the natural soils to a maximum depth of 30cm below the natural clays.

Geotechnical testing was carried out prior to the sub-surface testing program. The geotechnical testing and sub-surface testing confirmed that the property had been heavily disturbed by clearing, grading and land fill in the recent past. The testing indicated that the level of the land had been raised by as much as 120cm in parts of the property. Below the land fill was considered to be a sterile grey silty sandy soft clay layer that was very moist. Their conclusion was that this sediment was a marine deposit. No Aboriginal or

historic sites were located during the assessment and it was considered unlikely that sites would be present.

Thornhill Street Sewerage Pump Station Upgrade, Tyabb, Mornington Peninsula: Cultural Heritage Management Plan (CHMP 11231) (Jakovljevic & Prideaux 2010)

A desktop, standard and complex assessment was produced for Utility Services - South East Water Pty Ltd on a stretch of land that runs along Thornhill Street to the north of the current Activity Area. This CHMP identified one area of low archaeological potential and a region of soil disturbance during the standard assessment. No Aboriginal cultural heritage was located during the sub-surface testing. It was noted that the ground was very wet and boggy and that drainage was poor. A small amount of degrading shell was located in Test Pit 2 and was determined to be from a natural shell deposit rather than cultural. The soil profile recorded in the Activity Area indicated that there was no fill through most of the study area except in relation to a neighbouring past construction in the vicinity of Test Pit 2. The conclusion of the report was that there was a very low to negligible potential for Aboriginal cultural heritage to be located within the Activity Area.

Storage units at 5 Bray Street, Hastings (CHMP 10420) (Tucker & Jacobs 2008)

The Activity Area was uniformly flat extending to a steep embankment to Warringine Creek. Some mature trees were located along the creek but none of these had cultural scarring. Despite the location of the Activity Area within a landscape that would usually be considered sensitive (in other parts of the creek outside the Activity Area there are Registered Aboriginal Places), this particular parcel of land could not be considered sensitive owing to prior excavation activity and absence of topsoil. There were no distinguishing features of the landscape that would have indicated areas that would be sensitive for archaeological material. The Standard Assessment involved the pedestrian survey of transect lines that covered the entire landform. The Standard Assessment did not identify any Aboriginal Cultural Heritage nor any areas of potential sensitivity. Ground surface visibility was good to poor, however the evident surface disturbance concluded that the survey was effective in determining the potential for the Activity Area to contain Aboriginal Cultural material. Two test pits were undertaken positioned along the south-west and south-east sections of the Activity Area and a total of eleven shovel probes within four transect alignments were undertaken. The excavations confirmed that there was significant disturbance in the soil deposits overlaying the sterile compact clay. The archaeological investigation of the Activity Area situated to the rear of 5 Bray Street Hastings did not identify any Aboriginal cultural material nor were any stratigraphic deposits identified that were assessed to be sensitive for cultural material.

Koori Youth Alcohol and Drug Healing Service, Hendersons Road, Hastings, Victoria: CHMP 10834 (Matic 2009)

The proposed activity was the construction of a centre for a Koori Youth Alcohol and Drug Healing Service. A total of 33 probe holes and four 50cm x 50cm test pits were excavated, however no Aboriginal archaeological sites were identified. The stratigraphy of the soils was as follows. The topsoil of the area is a dark brown clayey silt which was found to extend to a depth of at least 10-20 centimetres across much of the site, underlain by a horizon of light yellowish brown clayey sand with some ironstone inclusions, between 6 and 13cm (commonly 10cm) thick. In all areas of excavation, the basal (sterile) layer was identified as a mottled yellowish brown clay. This was identified

at a variety of depths across the activity area, ranging from 10 to 38 centimetres, but was commonly encountered between 25 to 30 centimetres.

Proposed Residential Subdivision at 277 Marine Parade, Hastings, CHMP 11151 (A. Mitchell & McFarlane 2011)

A standard assessment archaeological survey of the activity area was undertaken. No Aboriginal sites, caves, rock shelters, cave entrances or culturally marked mature Indigenous trees were identified in the activity area during the survey. The activity area is considered to have been disturbed through the clearing of native vegetation and the construction of a residential dwelling and shed within the southwest corner. However, it was noted that the southwest section slopes upwards from the rest of the activity area to form a very slight, flat rise. While it is likely that this slight rise is the result of fill having been introduced and mechanically modified to form a level, raised house pad, there is a remote chance that this rise may have been a naturally occurring raised landform. In addition, there was poor ground surface visibility during the survey. Therefore a complex assessment including sub surface testing was recommended. In total, three 1x1 metre test pits and six 50x50 centimetre random shovel test pits were excavated across the entirety The pits ranged between the depths of 32cm and 57cm and contained a relatively uniform stratigraphy across the activity area, consisting of compacted brown silty clay over a very compact orange-gray clay base. European rubbish and introduced fill was found throughout the majority of the excavated pits. No Indigenous cultural heritage material was found within any of the test pits or random shovel test pits. As a result, no further cultural heritage works are required.

Proposed Industrial Development: 2153 Frankston-Flinders Road and Lot 103, 76 Reid Parade, Hastings. Cultural Heritage Assessment (Barker 2012).

A cultural heritage assessment was carried out within the current activity area. The cultural heritage assessment was to determine if a CHMP was required. This assessment comprised a desktop assessment and a site inspection. The desktop assessment noted that there was one previously recorded Aboriginal place within 500m of the Activity Area. The land use history and historic aerial photographs indicated that the Activity Area had not been subject to significant ground disturbance, having been utilised as an orchard. The land use history did indicate that at one stage, 2153 Frankston-Flinders Road contained a house and gardens. The site inspection noted extremely poor ground surface visibility, and could not establish significant ground disturbance across the whole of the Activity Area. The cultural heritage assessment determined that the Activity Area contained low potential for Aboriginal archaeological material and recommended that a CHMP needed to be conducted.

5.1.5 Historical and Ethno-historical Accounts in the Geographic Region

Indigenous people have likely occupied and utilised the landscape around Melbourne for over 40,000 years, although there is very little known about human occupation and palaeo-environments in the Melbourne Region until 15-10,000 years ago.

Prior to European settlement, the Indigenous population of Victoria was divided into a number of groups. In central Victoria, the languages of each of these groups were dialectically similar, sharing up to 93% of their vocabularies. These dialect groups, named the *Woiworung*, *Bunurong*, *Taungurong*, *Nguraiwurung*, *Wada wurrung* and *Djadja wurrung*,

comprised a 'regional cultural confederacy known as the Kulin' (Barwick 1984, pp.104–105).Members of the Kulin confederacy shared economic and social relationships, common religious beliefs, creation legends and Dreamtime ancestors. Each person also belonged to one of two moieties named after the Dreamtime ancestors, *Bunjil*, the eaglehawk, or *Waa*, the crow. Moiety affiliation was determined at birth with the child adopting the moiety of the father's clan. Kulin people were exogamous, meaning they married outside their clan and to a person from the opposite moiety (Barwick 1984, p.106; I. D. Clark 1990).

The Activity Area is located within the region south of the *Mayunebalug* and north of the *Bun wurungbalug*, both clans of the *Bun wurrung* people. The *Bun wurrung* (Bunurong) were one of four 'dialectical tribes' comprising the East Kulin language group (Barwick 1984).William Thomas, Assistant Protector of Aborigines in the Western Port district (1839 – 1849), spent much of his time travelling with *Bun wurrung* people between his hut at Arthurs Seat, the Aboriginal reserve which he established at Narre Narre Warren during 1841 and the Aboriginal camps around Melbourne (H. Sullivan 1981, p.25; Cannon 1983).This extensive travel through *Bun Wurrung* territory enabled Thomas to argue that the *Bun Wurrung* claimed "all the country south of the Yarra River, whose creeks and inlets fall into the sea from the Werribee River west to the Tarwin River, east of Cape Patterson"(Thomas papers Vol.7 17/1/1860 in (I. D. Clark 1990).

The *Mayunebalug* territory covered the upper parts of the Mornington Peninsula around Mounts Martha and Eliza to the coastal strip at the head of Western Port Bay in the east, the now-drained Carrum Swamp and the early pastoral runs owned by the Ruffy brothers 'Tomaque' and 'Mayune' and their Cranbourne Inn (Barwick 1984, p.117; I. D. Clark 1990, pp.364–367). The *arweet* (clan head) was identified as Motrungo/Budgery Tom (c. 1797/8-1848) .His heir was Buggup/Buckup (c. 1820/3-1848), a corporal in the Native Police Corps (I. D. Clark 1990, p.367; Barwick 1984, p.117). The moiety affiliation of the *Mayunebalug* was *Bunjil* (I. D. Clark 1990, p.367).

The *Bun wurungbalug* clan were the traditional custodians of the Point Nepean and Cape Schanck regions (I. D. Clark 1990, p.365).Clark identifies the *arweet* (clan head) as Bobinuren/Bobbinary (c. 1799-1849), a famed healer and sorcerer reputed to be able to 'charm away rain.'His son, YalYal/Mr. Ewan/Mr. Merrick was heir after him (I. D. Clark 1990, p.366).There is some controversy as to the moiety affiliation of this clan, as Howitt aligns them with *Bunjil* (Howitt 1904, p.257; Howitt & Fison 1990, p.48), but Barwick suggests *Waa*(Barwick 1984, p.117).

Post-contact Historical Accounts

Much of the available information about traditional *Bun wurrung* culture has been provided by William Thomas, Assistant Protector of Aborigines for the Western Port District. Other sources of information are the journals and letters of G. A. Robinson, Chief Protector of Aborigines (1839 – 1850), A. W. Howitt, and early settlers such as Georgiana McCrae and Maurice Meyrick (McBride 1969; Presland 1977; McCrae 1992).

First contact between *Bun wurrung* people and Europeans was with whalers and sealers prior to 1803 (sealing began in Bass Strait in 1798), as European huts were discovered by Grimes at Boneo in January of that year (Rogers 1957).The fact that whalers and sealers had arrived early in the history of the colony is further substantiated by entries in

Robinson's journal (26 December 1836 cited in (Plomley 1987, p.405), where he records an account of the early kidnapping of *Bun wurrung* women:

> Matilda the VDL native woman pointed out the spot a few miles down the harbour at Point Nepean where she said George Meredith and his crew of sealers stole the native women. The men's names were Brown, Mr. West the master of the schooner, and a man named Billy…said there was plenty of black fellows, some on the Port Phillip side some outside, sea coast. Said the sealers were afraid of the Port Phillip natives. Said they employed her to entice them. George Meredith stole the, I think she said, four women, took them…and then sold them to the [other] sealers there.I am informed that Munro bought one.(G. A. Robinson Journal entry, 26 December 1836, in (Plomley 1987, p.405).

Spillane also wrote that when Flinders ascended Arthurs Seat in 1802 he found evidence of Indigenous campsites and heaps of oyster shells near the summit. Looking south, he could see smoke from their fires (Spillane 1971).

During 1839, the British Colonial Government established an Aboriginal Protectorate in what is now Victoria. A Chief Protector, G.A. Robinson and four Assistant Protectors were appointed to administer the Protectorate. William Thomas was appointed Assistant Protector for the Port Phillip and Western Port Districts and had extensive contact with traditional *Bun wurrung* people during the early years of European settlement (Cotter 2001, pp.1–2).Thomas travelled with groups of *Bun wurrung* and related *Woiworung* people on seasonal movements around the Mornington Peninsula and Western Port, producing a map in 1841 showing the locations of *Bun wurrung* campsites and routes of movement.

Thomas also noted the frequent exploitation of the Nepean Peninsula coast. Sullivan (1981, p.29)ascertains that some of the places mentioned by Thomas could be base camps including *Boniong* and *Turtguruk* located in the hinterland of the Nepean Peninsula.

Shellfish gathering was observed by Thomas in Port Phillip Bay, near Melbourne, when he reported that a group of women went at least three times a week to collect shellfish (Thomas cited in (H. Sullivan 1981, p.25). Cockle and mussel shells were observed in Aboriginal huts on the Nepean Peninsula (Knopwood cited in (H. Sullivan 1981, p.36). Rough waves pound the Bass Strait coastline of the Nepean Peninsula, particularly during winter, and this may have made the collection of shellfish difficult at this time of year and restricted activities to the warmer months (H. Sullivan 1981, p.8).Thomas also observed shellfish being collected by women diving in creeks and rivers (Thomas cited in (H. Sullivan 1981, p.28).

In 1840, Thomas (cited in (H. Sullivan 1981, p.30) observed that about 44 people were still exploiting the country between Mount Martha and Cape Schanck, divided into small groups of about six to seven people. Larger groups of 20 to 30 people would have gathered where resources were plentiful or concentrated (H. Sullivan 1981, p.32).

Thomas considered that the *Bun wurrung* economy was predominantly terrestrial in orientation despite their close association with the coast (Gaughwin & S. Sullivan 1984, p.89). However, it is possible that this was partially a reflection of the time of year that he made his observations. He noted that favourite foods were kangaroo and possum, and that they had the 'greatest abhorrence' for snakes (Thomas cited in (H. Sullivan 1981,

p.22). Robinson was told by an eyewitness that in about 1834 "there was a tribe of Natives on the Point hunting kangaroo" (Robinson cited in (D'Arcy 2005, p.28).Women caught many smaller creatures such as bandicoots, rats and lizards (Thomas cited in (H. Sullivan 1981, p.22). It is probable that many womens subsistence and other activities were not seen or recorded by Thomas, either through his lack of interest or because the women carried them out away from the presence of men.

Fires were commonly lit by Aboriginal people in the coastal area of Port Phillip and were seen by early explorers (H. Sullivan 1981, p.23).While in the vicinity of Arthurs Seat in January 1803, James Flemming noted that the area was 'all newly burnt' (Shillinglaw 1972, p.24).In December 1836, George Augustus Robinson also noted at Point Nepean that "the bush was on fire, as indeed it was in all parts of the country" (Plomley 1987, p.405). Fires were mainly lit to maintain pathways through dense scrub, to increase the fertility of the land, to drive game and quite probably as a smoke screen to hide behind or to warn off or confuse intruders.

Further historical accounts of *Bun wurrung* traditions were recorded by Georgiana McCrae. Andrew McCrae and his wife Georgiana built a homestead at Arthurs Seat. Georgiana recounts that *Bun wurrung* people camped on the "edge of Cape Schanck Road" (McCrae 1934, p.209) and also mentions that large groups of *Bun wurrung* people made seasonal camps between the Cape Schanck Road and the bay beneath tea trees or coastal banksia (McCrae 1934, p.194). In 1851, Georgiana observed a *Bun wurrung* burial outside the paddock fence on the edge of the Cape Schanck Road:

> I watched the grave being dug by some, while others wrapped a possum-rug about the corpse, which they interred in a sitting position, the elbows on the knees, the chin supported in the left hand, and the opposite one laid, with the fingers open, along the angle of the jaw .Cords were drawn tightly across the shoulders and around the waist, then a new pannikin and the last of the bottle of medicine I had sent him having been put into the grave, the father, and (fifth) stepmother filled the hole with sand. (McCrae 1992, p.213)

Indigenous travel routes were located within the Mornington Peninsula. Thomas' 1840 map below (Figure 1) shows a track from Arthurs Seat travelling northeast around the top of Western Port Bay. Thomas marked the campsites used. The second campsite northeast of Arthurs Seat is labelled *Tyeup*. This is possibly in the region of Tyabb to the north of the study area. However, it is difficult to identify the proximity of the travel route in relation to the current study area with any greater certainty than that produced on the map.

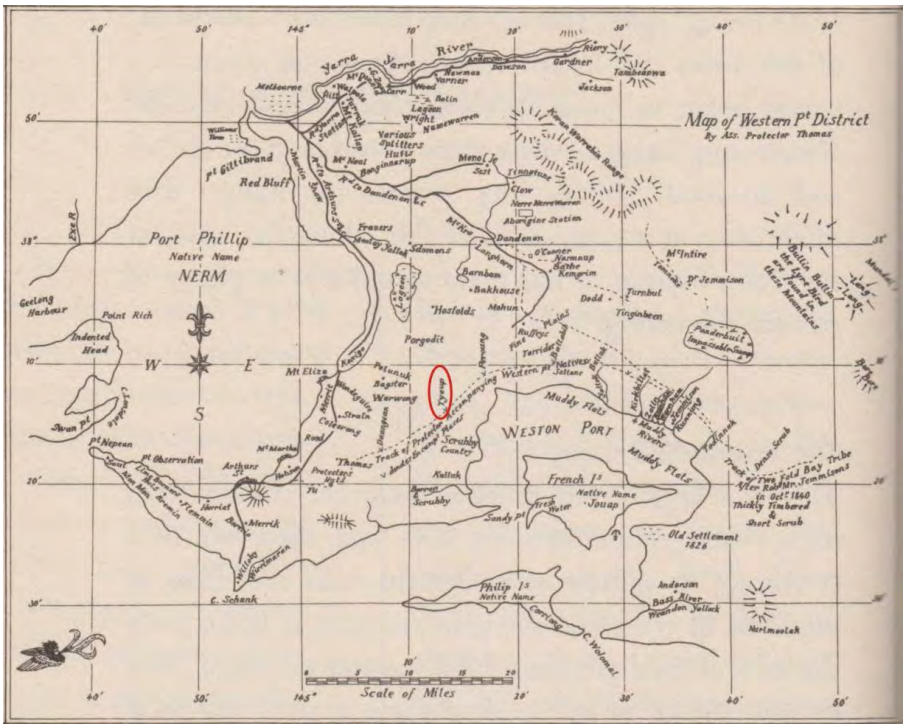


Figure 1: 1840 Map by William Thomas Indicating Routes Taken on his Travels with Bun wurrung Tribes (Reproduced from Presland 1994, p.74).

There is considerable emphasis in the ethnographic literature on the use of creeks and waterways as corridors of movement. Gunson (2008, p.10) stated that members of the *Mayunebalug* usually camped beside waterholes, creeks, and at coastal locations. Early settlers of the Western Port region also noted that Aboriginal campsites containing huts were often found beside rivers and creeks (H. Sullivan 1981, p.33).It is quite likely that Western Port Bay was utilised in this way.

Just prior to, and overlapping, the period of British exploration and settlement, the *Bun wurrung* were involved in a long-running dispute with the *Gunai/Kurnai* people from Gippsland. According to William Barak, the conflict was a dispute over resources and resulted in heavy casualties being suffered by the *Bun wurrung*. Many *Gunai/Kurnai* raids occurred to abduct Bunurong women. According to Barwick (1984), the *Yowengerra* had almost been completely annihilated by 1836, largely as a result of attacks from the *Gunai/Kurnai*. During 1833-1834 around 60-70 Bunurong people were killed in a raid by *Gunai/Kurnai* while they were camped to the north of Carrum Swamp (Rhodes 2003).

Post-Contact History

Prior to permanent European settlement (from at least 1809) the *Bun wurrung* people had encountered and had conflicts with whalers and sealers. These seamen also introduced foreign diseases to which Aboriginal peoples were particularly vulnerable, and a smallpox epidemic had passed through the area in the early part of the nineteenth century. Those *Bun wurrung* people living primarily along the Port Phillip and Western Port coast were also subjected to raids on their camps by sealers as late as 1833. These raids were

frequently violent, with men being killed and the women abducted and enslaved by sealers as labourers and concubines and taken to the islands in Bass Strait where the sealers had their camps (Rhodes 2003).

Warfare, disease and kidnapping all conspired to precipitate a rapid decline in the population of *Bun wurrung* peoples inhabiting their traditional lands. These numerous impacts would also have disrupted the economic and social ties binding the *Bun wurrung* to neighbouring *Kulin* peoples. Consequently, much of the *Bun wurrung* population had been displaced by the time of permanent European settlement of the area .By 1839, the *Bun wurrung* had been reduced to 83 people, with only 4 of 19 children under four years old from a probable pre-contact population of greater than 300 people. By 1850, Protector William Thomas estimated just 28 *Bun wurrung* people remained (Rhodes & Bell 2004, p.55). A camping reserve was established in 1841 at Mordialloc Creek where the *Bun wurrung* peoples were allocated 340 hectares. The rations for the reserve were managed by the Honorary Correspondents to the Boards of the Protection of Aborigines. The majority of the *Bun wurrung* population had moved to the Mordialloc reserve by 1856.It ceased operation in 1878.

No specific references to the occupation of the land around Hastings by *Bun wurrung* people was found during the background research carried out for this assessment, though they potentially travelled through the region based on Thomas' account. However, it is possible that such evidence may exist in unpublished historical sources. A review of unpublished sources was beyond the scope of this project. The *Bun wurrung* people still strongly identify attachments to nearby Point Nepean (Williamson 2008, p.59).They are represented by the Bunurong Land Council Aboriginal Corporation and the Boon Wurrung Foundation Ltd who regard themselves as the traditional owners and custodians of this area.

Oral History Relating to the Activity Area

No specific oral history has been provided in relation to the Activity Area.

5.1.6 Landforms and Geomorphology of the Activity Area

The Activity Area is situated on unnamed colluvium (Qc1). The activity area itself is positioned on a sedimentary cover consisting of Quaternary colluvium composed of a matrix of gravel, sand and silt and is located on a low-lying coastal plain on the Southern Uplands. The underlying bedrock of the activity area is highly likely to be sedimentary mudstone and sandstone of the Murrindindi Supergroup or the composite formation of sandstone, conglomerate, siltstone and ironstone deposits of the Baxter Sandstone. Soils within the Hastings region are grey dermosols, comprising dark brownish grey clay loams that vary to light clays at 200mm, generally overlying brownish grey tolight grey and rusty brown mottled clay loams. Towards a depth of 300-400m rusty brown and grey heavy to medium clays appear.

During the Last Glacial Maximum (approximately 20,000 years ago) the sea levels in Western Port Bay were thought to have been as much as 27m lower than current levels (Marsden & Mallett 1975, pp.110–111). After this time, the sea levels consistently rose until about 6,000 years ago when they were 1-2m above the present level. From 6,000 years ago to the present the sea levels have diminished to what they are at present (Marsden & Mallett 1975, pp.110–111).

Specific land system data related to the landform and soils within the Activity Area can be found in the table below (Table 3).

Table 3: Summarises the Geological, Geomorphological and Climate Information for the Area.

Land system Code (Land systems of Victoria at 1: 250,000)	Land system Description	
3.3PfQ7-2	**Geomorphic Unit:**	Moderate Ridge - Mornington Peninsula
	Landform:	Plain above flood level (relative relief <9m)
	Lithology:	Fine textured unconsolidated deposits
	Soils:	Yellow earths, grey clays, yellow duplex soils with moderate compaction, pH <5.5.
	Pre-1750 EVCs:	EVC 175 Grassy Woodland
	Climate:	Mean Max Temp. Highest: February 24.9° data from 1991-2009 Lowest: July 13.6° data from 1991-2009 Mean Min Temp. Highest: February 14.1° data from 1991-2009 Lowest: July 6.2° data from 1991-2009 Rainfall (mean rainfall) Highest: August 76.2mm data from 1986-2009 Lowest: February 36.5mmdata from 1986-2009 Highest Rainfall (in a month) – April 2001 – 192.8mm data from 1986-2009 Lowest Rainfall (in a month) – January 2008 – 0.8mm data from 1986-2009
	Freshwater Sources:	Warragine Creek (170m)

5.1.7FoodResources and Pre-Contact Vegetation

Typically a hunting and gathering community, the *Bun wurrung* would have traversed the extent of their traditional lands in a well-known 'seasonal round', obtaining resources from known locations.

The Activity Area falls within the pre-1750 EVC Grassy Woodland (EVC 175). Swamp Scrub is typically a closed canopy of scrub up to 8m in height containing Woolly Tea Tree (*Leptospermum lanigerum*) and Swamp Paperbark (*Melaleucaericifolia*) with small to medium shrubs and grasses such as Prickly Currant-bush (*Coprosmaquadrifida*), Prickly Tea

Tree (*Leptospermum continentale*), Australian Gipsywort (*Lycopusaustralis*), Purple Loosestrife (*Lythrumsalicaria*), Spotted Knotweed (*Persicariapraetermissa*), Wing Pennywort (*Hydrocotylepterocarpa*), Swamp Starwort (*Stellariaangustifolia*), Angled Lobelia (*Lobelia anceps*), Swamp Crassula (*Crassulahelmsii*), Tall Rush (*Juncusprocerus*), Common Tussock-grass (*Poalabillardierei*), Thatch Saw Sedge (*Gahnia radula*), Common Reed (*Phragmitesaustralis*), Soft Twig-rush (*Baumearubiginosa*), Water Ribbons (*Triglochinprocerum*), Green Rush (*Juncusgregiflorus*), Common Spike-sedge (*Eleocharisacuta*), Gristle Fern (*Blechnumcartilagineum*) and Large Binweed (*Calystegiasepium*) (Oates & Taranto 2001, vol.2: Appendix 3).

Water plants such as water ribbons, reeds, rushes and sedges were used by Aboriginal people to make woven items such as eel traps, mats and baskets (Zola & Gott 1992).

It is unlikely that there were any specific fauna used by Indigenous people in the past concentrated within the study area itself that was not equally as abundant within the surrounding areas. The majority of fauna recorded were bird species (n=47), which is understandable due to the attraction of birds to water features such as the wetlands and mangroves. Eight mammal species were recorded within this region including echidna, antechinus, bandicoot, possum, sugar glider, native mouse and rat. Only five reptile species were recorded in the region, mostly species of skink, and three species of frog (Viridans Biological Databases 2012).

5.1.8 Stone Resources

Stone was often traded or exported from quarries over large distances. Basalt was available as surface outcrops at both Berwick and Cranbourne (Smith 1991, p.9). Reef quartz may have been quarried from areas on the Mornington Peninsula, including Devilbend Creek (Ellender 1991, p.10). Ellender noted that reef quartz occurred naturally in sands at the Cranbourne Botanical Gardens north of the study area (1991, p.10). Mudstone, claystone, sandstone and hornfels were able to be obtained east of Clyde Road, where sedimentary deposits interface with intrusive volcanics (granite), and chert could be found at Devilbend Creek . Sandstone and slate could be found at Baxter on the Mornington Peninsula (Weaver 1992). Marine flint was available in the form of nodules found washed up along the Bass Strait coastline (H. Sullivan 1981, pp.9–10). Silurian sediments, including silcrete, outcrop in the eroded Maribyrnong River valley (Rosengren 1986, pp.34–35).

5.1.9 Land Use History of the Activity Area

The region in which the Activity Area is located was originally known as Kings Creek (Bennett et al. 2004, p.1). The earliest industry in the Hastings region was fishing. Government Zoologist William Blandowski reported in 1854 that "Oysters were obtained near King's Station in great abundance" (Bennett et al. 2004, p.1). In 1845, Martha Jane King leased a newly released pastoralist run (Bunguyan) and established herself there with a cattle station. At this time Bunguyan Run covered 15,000 acres (Spreadborough & Anderson 1983, p.155). Bunguyan Run was subdivided in 1854,

separating Sandstone Island, which was originally used as the breeding area for the main station.

The township in which the Activity Area is located was originally surveyed in 1858 by Michael Callanan and called Tyab (one 'b'). This came to be known as 'Old Tyabb' (Bennett et al. 2004, p.4). The original lease for Bunguyan Run expired in 1859 and a new lease was taken by Vaughan and Wild. Their lease was forfeited in 1864 and purchased by John Watson in 1865. John Watson held the property until 1870. In 1872, William Brown Junior of Melbourne purchased the lease and two years later subdivided the run into Bunguyan North and Bunguyan South. He owned Bunguyan North until it was forfeited in 1879. Bunguyan South was then listed under the name John Watson of Frankston until 1877. The final purchaser of the lease on Bunguyan South was Eliza Selina Sadlier of No. 130 Toorak Rd, South Yarra. The run was forfeited in 1882 (Spreadborough & Anderson 1983, p.155).

A review of historic aerial photos indicated that the vegetation in the region of the Activity Area had remained unchanged during the last 60 years. Prior to 1957 aerial maps show that the 2153 Frankston-Flinders Road comprised of a house and landscaped gardens with all the surrounding land including Lot 103/76 Reid Parade utilised as an orchard. Later 1970 aerial maps show that the agricultural activity had changed with the land ploughed and the house removed. There was no major land disturbance evident in the Activity however the planting and removal of an orchard on Lot 103/76 Reid Parade and subsequent ploughing is likely to have caused severe ground disturbance.

Map 5: 1957 Aerial showing current Activity Area

5.1.10 Conclusions from the Desktop Assessment

Archaeological Site Prediction Model

A site prediction model is intended to be used as a guideline to designing the field survey and as an indication of the types of archaeological sites which may occur in a given area. The site prediction model is then tested against the results of the field survey.

A review of the environmental data relevant to human settlement and the ethnographic and archaeological data relevant to the local area indicates that for the Activity Area, the following applies:

- The Activity Area is located within an area of cultural heritage sensitivity and the proposed future works are to build 32 factory and office units with carparks. The construction of these units and carparks are classified as high impact activities;

- The Activity Area is located on the landform 'Plain above flood level (relative relief <9m);

- The soil across the site is identified as yellow duplex soils. These soils are approximately 40-50cm deep and sits on Baxter Sandstone;

- The vegetation in the Activity Area is classified as Grassy Woodland (EVC 175) of large eucalypts, shrubs, grasses and reeds;

- A range of birds and small mammals would have been present in the region of the Activity Area and would have been utilised by Aboriginal people. Animals in this region were abundant in the surrounding area;

- Indigenous people have occupied the landscape around Melbourne for over 40,000 years and have been recorded in early settler accounts as having camped throughout the region the Activity Area is located in;

- One previously recorded Aboriginal cultural place is located within 500m of the Activity Area. There are seven places located within 2km. The former is a surface artefact scatter on the banks of Warragine Creek;

- Sullivan's survey of the Mornington Peninsula (1981) located few sites around the Western Port Bay coastline;

- A review of the historic land use of the Activity Area and a review of historic aerial photographs indicated that there had been no major land disturbance to the Activity Area itself, however 103/76 Reid Parade was utilised as an orchard prior to 1957. At some point prior to 1970 the trees were removed and the land ploughed. Tree removal would have caused severe ground disturbance to the thin soils and would have most likely destroyed any cultural material. 2153 Frankston-Flinders Road however formerly contained a house and gardens and therefore is unlikely to be severely disturbed and therefore has some potential to contain deposits of Aboriginal cultural material.

The lack of Aboriginal cultural heritage places located within the vicinity of the Activity Area indicates that either there is a very low probability that *in situ* Indigenous archaeological places will occur within the Activity Area, or it reflects the paucity of archaeological assessment prior to the development of the existing urban environment.

Given the access which would have been available to natural resources, such as plants, animals and the source of water which would have been available from Western Port Bay and Warragine Creek, and that sites within the geographic region are located on the same landform, there is some potential for Aboriginal cultural heritage to be located within the Activity Area.

The desktop assessment concluded that the extent of any soil disturbance would need to be validated by a field survey of the property, as would an assessment for potentially sensitive landforms.

6. Standard Assessment

In accordance with the *Aboriginal Heritage Regulations 2007*, this section contains the results of the standard assessment.

6.1.1 Methodology for Standard Assessment

A standard assessment is a surface archaeological survey. This may locate evidence of surface sites but will not necessarily find buried archaeological deposits. The methodology for the standard assessment is informed by the desktop assessment and the site prediction model.

The field survey was carried out by the archaeologist over a four hour period. The ground surface covering the entire Activity Area was inspected during the survey. The method of inspection involved the field team walking regularly spaced transects which were 5 metres apart. Areas in which there was bare ground surface exposure were inspected closely. Areas of high ground surface included ground along existing tracks and fences and around the base of trees. The general percentage (%) of ground surface visibility was recorded throughout the Activity Area. All evidence of prior ground disturbance was also recorded. An assessment was undertaken of any existing Indigenous trees within the area, which were examined for any signs of scarring.

6.1.2 Results of Ground Survey

The standard assessment was conducted by Matthew Barker from Heritage Insight Pty Ltd on 14th of March 2012. The entire Activity Area, as shown in Map 3, was inspected by the field team, walking regularly spaced transects so that the entire Activity Area was covered.

Ground surface visibility was extremely poor across the entire Activity Area, generally at <5%. This was due to the dense grass coverage. The entire Activity Area was surveyed (13880m^2), but the effective survey coverage was estimated at less than 40m^2 due to the thick grass cover. The majority of the Activity Area was flat, though a small mound was located in the south section of the Activity Area (Table 4, Plate 8).

The Activity Area can be split into three sections defined by vegetation and disturbance characteristics:

1. The western section of the Activity Area fronting 2153 Frankston-Flinders Road was characterised by series of distinct ploughed furrows aligned north-south (Plates 1-2 and 6);

2. The north and centre eastern section of the Activity Area (2153 Frankston-Flinders Road) was characterised by dense grass with two small stands of immature eucalypts (Plates 3-4 and 6);

3. The south section of the Activity Area comprising Lot 103/76 Reid Street was characterised by dense stands of blackberries and weeds indicating considerable ground disturbance (Plates 7-9) has taken place. Other features indicating ground disturbance was indicated by buried masonry (Plate 9), mounded soil (Plate 8), a

very uneven ground surface and exposed clay soils with gravel which are considered to be the underlying basal layer from 10-20cm (Matic, A 2009) and shown in the railway embankment (Plate 5).

Table 4: Photographs from Standard Assessment

Plate 1: Ploughed Paddock Facing east from western boundary showing furrows (Photo by M. Barker 14/3/2012)

Plate 2: Ploughed Paddock Facing east from centre of Activity Area showing furrows and vegetation in east (Photo by M. Barker 14/3/2012)

Plate 3: Small stand of immature eucalypts in far east of the Activity Area, facing north (Photo by M. Barker 14/3/2012)

Plate 4: Dense vegetation in far east of Activity Area, facing northwest (Photo by M. Barker 14/3/2012)

Plate 5:Rail alignment from eastern boundary showing exposed clay soil profile, facing east (Photo by M. Barker 14/3/2012)

Plate 6: Exposed clay soils in centre east of the Activity Area, facing northwest (Photo by M. Barker 14/3/2012)

Plate 7: Dense vegetation and blackberries in south of the Activity Area, facing south (Photo by M. Barker 14/3/2012)

Plate 8: Mound of soil on eastern boundary of the Activity Area, facing east (Photo by M. Barker 14/3/2012)

Plate 9: Disturbed soils in south of the Activity Area, facing northwest (Photo by M. Barker 14/3/2012)

6.1.3 Conclusions from the Ground Survey

No mature Indigenous trees were located within the Activity Area. The vegetation consisted of dense grass, blackberries/weeds and immature eucalypts. It is likely that the Activity Area has been cleared of vegetation at some time in the past, and the ploughed furrows are likely evidence of past agricultural activities taking place on the property. Aerial photographs have revealed that the Lot 103/76 Reid Parade was formerly utilised as an orchard and later ploughed whereas 2153 Frankston Flinders Road comprised a house and landscaped gardens.

The desktop assessment indicated that the main industry in the region of the Activity Area during early European settlement was stock grazing and it may have been cleared for this purpose.

The site prediction model indicated that the Activity Area was located on the landform 'Plains above flood level (relative relief <9m)', which is known to potentially contain Aboriginal cultural material (see Section 4.1.3). Within this region, the cultural material was identified as surface and sub-surface artefact scatters.

No Indigenous cultural heritage was identified on the surface within the Activity Area, though poor ground surface visibility constrained the effectiveness of the field survey. It was not possible to ascertain whether there may be sub-surface cultural heritage or whether the small mound in the south section of the Activity Area was natural or not.

The desktop assessment concluded that there was a very low probability that Indigenous cultural heritage would occur within the Activity Area, though there was some potential due to the access to resources offered by the location. The standard assessment confirmed the conclusions of the desktop assessment but was unable to assess the presence or absence of any sub-surface cultural material. This would need to be verified by means of a complex assessment, which would also confirm whether or not the soils have been disturbed to depth.

7. Report on the Results of the Complex Assessment

In accordance with Clause 8, Schedule 2 and Clause 9, Schedule 2 of the *Aboriginal Heritage Regulations 2007,* this section contains the results of the complex assessment.

7.1 Methodology of the Complex Assessment

The complex assessment described in this section was carried out by qualified archaeologist Renee McAlister (BA (Hons) Archaeology (Project Archaeologist) and Samantha Brown (Technical Archaeologist) representing Heritage Insight Pty Ltd. The Bunerong Land Council were represented by Darren Symington and the Boonwurrung Foundation were represented by Sharee Harper. Excavation took place on the 18-19th June 2012. Adam Deane from Archaeological Excavations participated on the 19th June and drove the excavator.

The complex assessment was required in order to determine the presence or absence of Indigenous cultural material that would be impacted upon by the activity. On this basis, the complex assessment involved the excavation of a test pit and a series of backhoe transects across the entire activity area. The test pit and back hoe transects were excavated in order to determine the nature of the sub-surface stratigraphy, determine the extent of significant ground disturbance and the presence or absence of any Aboriginal cultural material within the Activity Area.

The complex assessment comprised of one 1x1m test pit, ten40x40cm shovel probes and eleven 200x60cm mechanical test pits.

The test pit was hand excavated in arbitrary 10cm spits and all material was sieved through 5mm sieves. Backhoe transects were machine excavated and all material was sieved using a mechanical sieve with 5mm mesh. Shovel probes were hand excavated at 5m radials around backhoe transects where artefacts were located.

Photographic records and notes concerning the excavated soils were kept and section drawings and photographs were made once excavation was complete.

The goal of the test pit was to establish the sub-surface stratigraphic composition of the Activity Area and test for unidentified sub-surface deposits. The mechanical test pits were utilised to improve the sample size of the sub-surface testing. Shovel probes were utilised to establish the site extent and further test the area for Indigenous cultural material.

If Aboriginal cultural material was located, it will be held at the Heritage Insight offices until such time as the artefacts are reburied or returned to the Traditional owners.

Excavation of Test Pits

In accordance with Regulation 61 (4) of the AHR, at least one test pit must be excavated manually in order to establish the general stratigraphy of the Activity Area.

TP1 was a 1x1m test pit, and was located in the approximate centre of the activity area on a rise (see Map 6). This area was identified during the standard assessment as

potentially not being highly disturbed. Excavation of TP1 was carried out in 10cm spits and ceased when a clay base, deemed to be sterile soil, was located. TP1 was excavated in order to determine the soil stratigraphy. TP1 determined the geological mapping data was correct and the soils are consistent with the dermosols located within the Hastings region.

Excavation of Backhoe Transects

A total of 11 x 2m transects were excavated across the Activity Area. Transects were dug using an excavator on rubber tracks, with a 600mm flat-edged mud bucket. Initially, the surface soil was stripped off each transect to a depth of approximately 50mm. Soil along the length of each transect was then excavated in increments of 100mm until the basal clay was reached. All soil was placed in a mechanical sieve with 5mm mesh.

Five backhoe transects were located within the property known at 76 Reid Parade, this section was the part of the Activity Area considered to be an area of cultural heritage sensitivity based on the proximity of Warragine Creek. One backhoe transect was placed through the mound identified in the Standard Assessment. Six mechanical were located within the property known as 2153 Frankston-Flinders Road, these were laid out in an approximate grid pattern.

Aboriginal cultural material was located within BT 7 and BT 9, within 2153 Frankston-Flinders Road (VAHR 7921-1427 and VAHR 7921-1428).

BT1, 2, 3, 4, 5, 10 and 11 were all located along the eastern half of the property. These transects all displayed a consistent profile, which revealed the eastern half of the property was highly disturbed and soil deposits were all fill. The soil mound identified during the Standard Assessment was fill.

BT 6, 7, 8, 9 were all located within the western half of the property. BT 6, 7 and 9 showed a silty clay organic soil profile. This section of the property has been subject to less significant ground disturbance than the rest of the property. BT 8 revealed loose sandy deposits that have been dumped on the property.

For the location of each of the back hoe transects, refer to Map 6.

Excavation of Shovel Probe Radials (SPs)

After Aboriginal cultural material was located within BT 7 and BT 9, 8 shovel probes were excavated within a radial pattern at 5m intervals to establish the site extent and attempt to identify additional Aboriginal cultural material (see Maps 6 and 7).

The test pit holes were excavated using a standard post hole shovel (30cm in width). Initially, the surface soil was stripped off each shovel test pit to a depth of approximately 50mm. Each test pit was then excavated in increments of 100mm until the basal clay or sterile layer was reached. The soil from each of the shovel test pits was sieved by the field team using hand sieves with a 5mm mesh. A total of 100% of the soils excavated from each of the shovel test pits was sieved.

No additional cultural material was located within the shovel probes and they displayed a consistent sub-surface stratigraphic profile across the activity area.

7.2 The Results of the Complex Assessment

Summary of Results

Two stone artefacts were located during this complex assessment. These artefacts were located in BT 7 and BT 9 (see Map 6), and were registered as VAHR 7921-1427 and VAHR 7921-1428

Excavation within the activity area displayed two different soil profiles. The eastern half of the activity area comprised orange, yellow silty clay which consistently contained modern rubbish, including construction rubble, bricks, plastic, wood and charcoal. The area appears to have suffered significant ground disturbance. The western half of the activity area appears to have suffered some ground disturbance, but less than the eastern half. This area contains an organic brown silty loam that is most likely reminiscent of the areas agricultural land use. The land in this section is undulating with furrow marks – Backhoe Transects 6 and 7 were placed on the rise and 8 and 9 were placed half on the rise, half on the slope in order to build up a better profile of the sub-surface deposits.

Test Pit Soils and Stratigraphy

Test Pit 1 was excavated as a single trench to a depth of 300mm, at which point a dark yellow clay base was identified. Given the trench to this point contained fill and yellow silty clay the decision was made to excavate a 50x50cm sondage in the north western corner of the test pit, to see if natural soil deposits underneath the disturbed layer of fill could be identified. The sondage extended to a depth of 490mm at which point a yellow clay base was identified and water was seeping into the test pit.

The contents of the entire test pit were extremely moist. Soil was compact and muddy. The top of the test pit contained a very thin layer of moist organic silty topsoil and included worms, grass roots and bugs. Underneath this was a thick layer of fill, containing orange clay, dark brown silty clay all mottled together with charcoal flecks and European rubbish, such as nails, bricks, metal and plastic. The soil was extremely moist and smelt rotten and swampy. Ironstone inclusions were noted in spit 4. Water began seeping through into the test pit at spit 4 and continued to seep in. Excavation ceased at a depth 490mm.

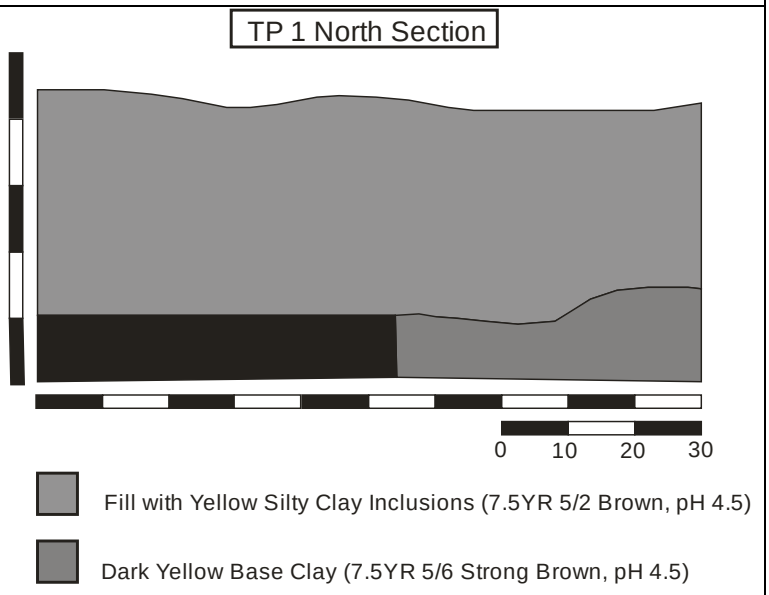
A summary of excavation data from the Test Pit is provided in Table 1.

Test Pit – Cultural Material

No Aboriginal cultural material was located in the test pit.

Table 2: Summary excavation data from Test Pit 1

Test Pit	1
Dimensions	1x1m
GDA 94	341352.070E 5757863.398N

Coordinates	
Stratigraphy **Context 1** **Context 2**	 0-250/300mm: Fill with Yellow Silty Clay Inclusions (7.5YR 5/2 Brown, pH 4.5) 250/300-490mm: Dark Yellow base clay, continues beyond excavated layer (7.5YR 5/6 Strong Brown, pH 4.5)
Depth of Excavation	490mm
Evidence of Disturbance	Bricks, Glass, Wood, Plastic, Concrete, Cardboard
Section Drawing	
Photo by R. McAlister (18/06/2012) after excavation showing stratigraphic profile of Test Pit 1	

Vertical artefact distribution	None

Backhoe Transect Soil and Stratigraphy

Eleven backhoe transects were excavated across the activity area.

Five backhoe transects were excavated within the south section of the activity area known as 76 Reid Parade, Hastings. This is the section of the activity area that was considered to be an area of Cultural Heritage Sensitivity, based on cultural heritage mapping, due to its proximity to Warragine Creek. At the time of the Complex Assessment, half of this area was being utilised as a wood chopping/chipping area. The south west corner was extremely muddy from heavy machinery tracks and largely covered by large piles of wood. As such no transect was able to be excavated in this corner. The northern half of 76 Reid Parade is covered with a mixture of exotic and native grasses, shrubs and weeds, rubbish has been dumped across this area and the section of the property along the eastern boundary was waterlogged, which prevented excavation along the eastern boundary.

BT1, 2, 3, 4 & 5 displayed a consistent sub-surface stratigraphic profile across the entirety of 76 Reid Parade. The soil was extremely moist, very dark silty clay containing modern rubbish throughout. Rubbish included rubble, bricks, wood, plastic, ceramics and glass. The soil appears to be fill, dumped across the property. The average depth of backhoe transects was between 350-500mm.

BT 10 and 11 were located in the north eastern section of the activity area, in the section known as 2153 Frankston-Flinders Road. This section of the activity area contains exotic and native grasses, shrubs, trees and weeds, piles of rubbish have also been dumped in this area. This area continues the soil profile demonstrated in BT 1, 2, 3, 4 & 5 and TP1. The sub-surface stratigraphy of this area contains mottled orange brown silty clay with modern rubbish throughout. The average depth of these backhoe transects was 400mm.

Water was noted seeping into TP1 and BT 1, 2, 3, 4, 5, 10 & 11, beginning at approximately 300mm. The whole area is low lying and contains swampy deposits.

BT 6, 7, 8 & 9 were located in the western half of the activity area in the section known as 2153 Frankston-Flinders Road, Hastings. This section of the activity area is covered in exotic pastoral grasses and is gently undulating, plough patterns, running north-south can be identified, suggesting this area was utilised as a market garden at some stage. BT 6 and 7 were excavated north-south along the top of the furrows, BT 8 and 9 were excavated east-west across the furrows to see if this would provide more information.

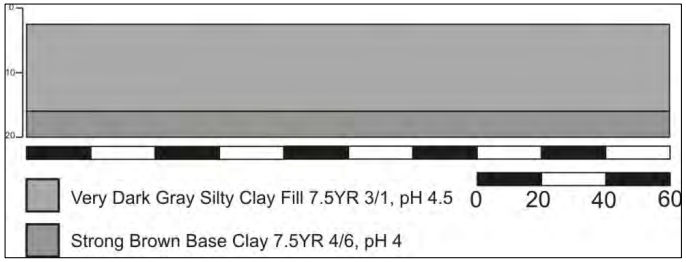
BT 8 was placed in the highest point within this area, and was covered with lighter coloured pastoral grasses. The sub-surface nature of BT 8 showed that this larger rise with the lighter coloured grasses contained a pile of yellow sand which has been dumped in the area. BT 6, 7 & 9 contained a consistent sub-surface stratigraphic profile with a thin layer of brown silty clay fairly organic top soil, with underlying deposits of mottled orange brown silty clay.

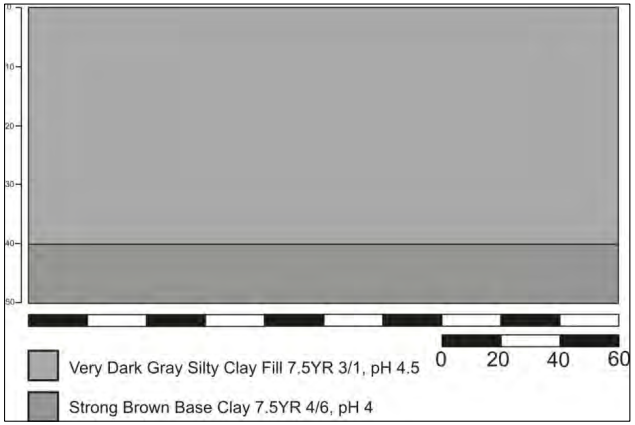
Mechanical Test Pits – Cultural Material

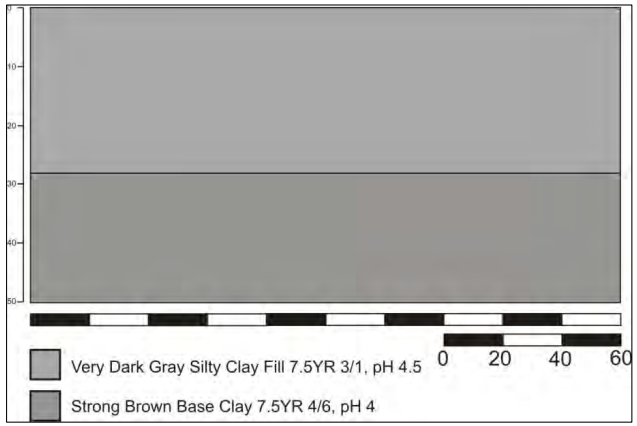
Two stone artefacts were identified during sub-surface testing (VAHR 7921-1427 and VAHR 7921-1428). One silcrete flake was retrieved from BT 7 and one quartzite angular fragment was retrieved from BT 9. Both artefacts were identified during sieving and were located in the top 100mm.
These artefacts are not considered to be *in situ,* given the ploughed nature of the paddock and the fact they are located within the top 100mm. The landscape has clearly been ploughed into furrows which will have disturbed the top 300mm.

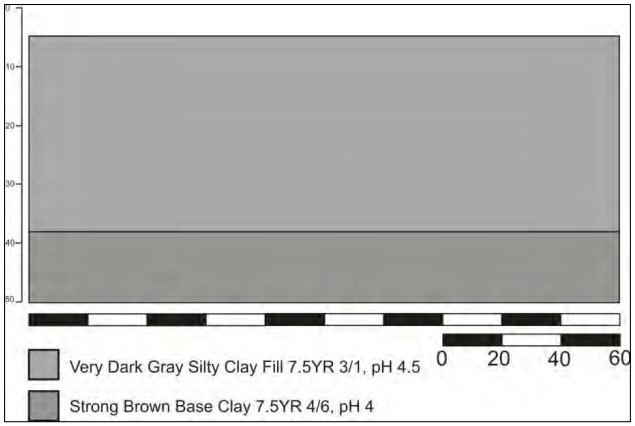
A summary of excavation data from Mechanical Test Pits is located within Table 3

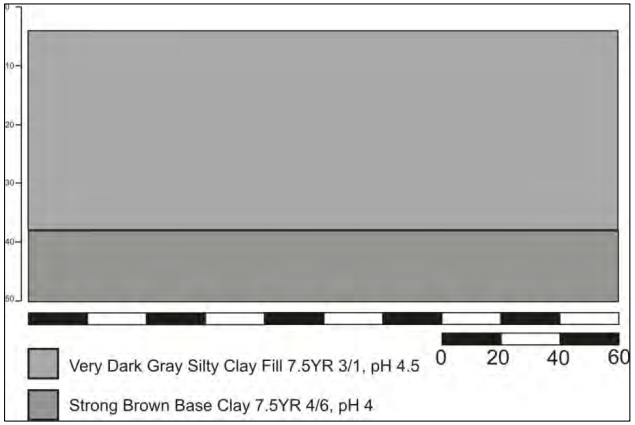
Table 3: Summary of excavation data for Mechanical Test Pits

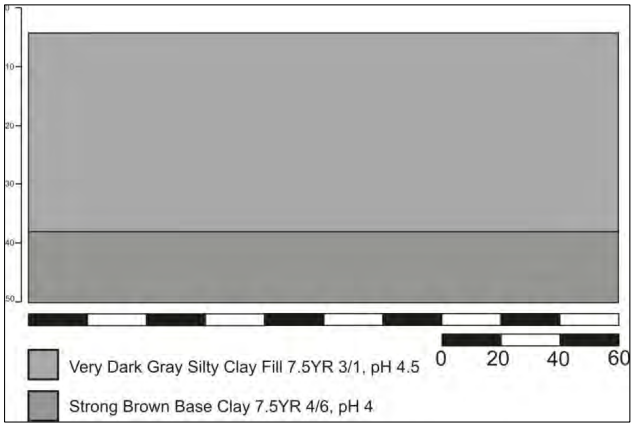
Transect	Soil Stratigraphy	Photo	Stratigraphic Profile
Transect One **Length: 2m** **Orientation: E-W** **Grid Co-Ords:** **Start** 341356.783E 5757805.036N **End** 341358.884E 5757806.642N	1. 0-270mm: Moist very dark grey silty clay with modern rubbish, including wood, plastic and bricks (7.5YR 3/1) (pH 4.5). 2. 270-350mm Moist, compact, brown clay base. Water seeping through at base (7.5 YR 4/6) (pH 4). **Cultural Material: NONE**		

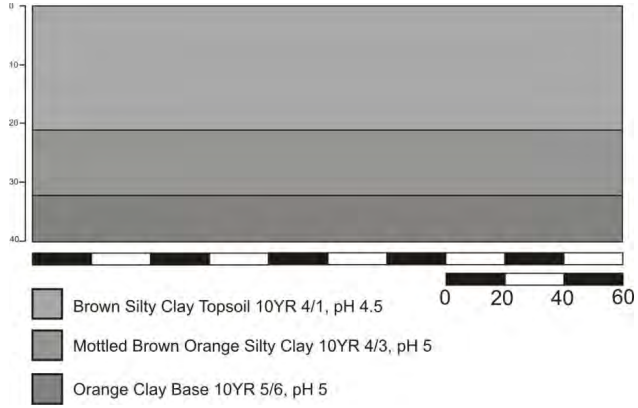
Transect	Soil Stratigraphy	Photo	Stratigraphic Profile
Transect Two **Length: 2m** **Orientation: E-W** **Grid Co-Ords:** **Start** 341351.386E 5757777.918N **End** 341354.07E 5757776.59N	1. 0-400mm: Moist very dark grey silty clay with modern rubbish, including wood, plastic and bricks (7.5YR 3/1) (pH 4.5). 2. 400-500mm Moist, compact, brown clay base (7.5 YR 4/6) (pH 4). **Cultural Material: NONE**		

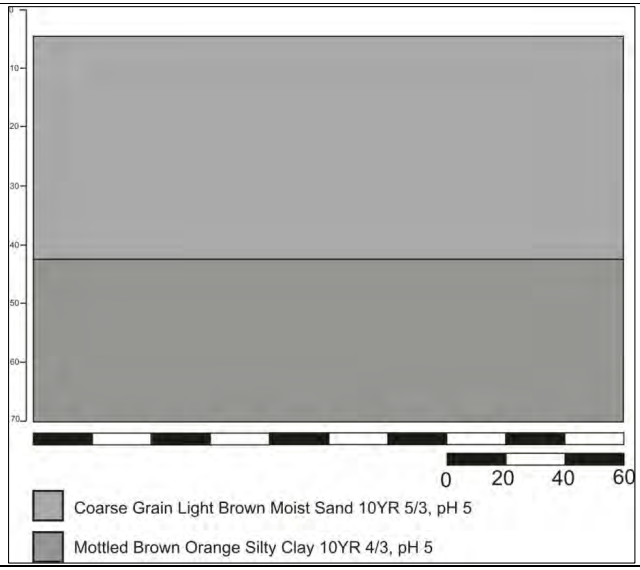
Transect	Soil Stratigraphy	Photo	Stratigraphic Profile
Transect Three **Length: 2m Orientation: E-W** **Grid Co-Ords:** **Start** 341362.429E 5757758.989N **End** 341365.559E 5757757.425N	1. 0-270mm: Moist very dark grey silty clay with modern rubbish, including wood, plastic, charcoal, concrete pipes and bricks (7.5YR 3/1) (pH 4.5). 2. 270-500mm Moist, compact, brown clay base (7.5 YR 4/6) (pH 4). **Cultural Material: NONE**		

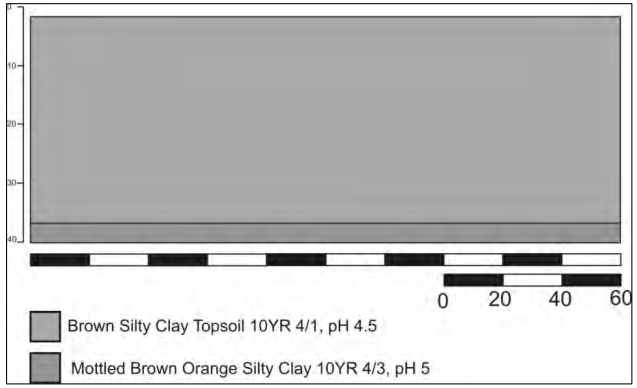
Transect	Soil Stratigraphy	Photo	Stratigraphic Profile
Transect Four **Length: 2m** **Orientation: E-W** **Grid Co-Ords:** **Start** 341375.184E 5757731.421N **End** 341377.673E 5757729.670N	1. 0-330mm: Moist very dark grey silty clay with modern rubbish, including wood, plastic, concrete, stones and bricks (7.5YR 3/1) (pH 4.5). 2. 330-450mm Moist, compact, brown clay base (7.5 YR 4/6) (pH 4). **Cultural Material: NONE**		

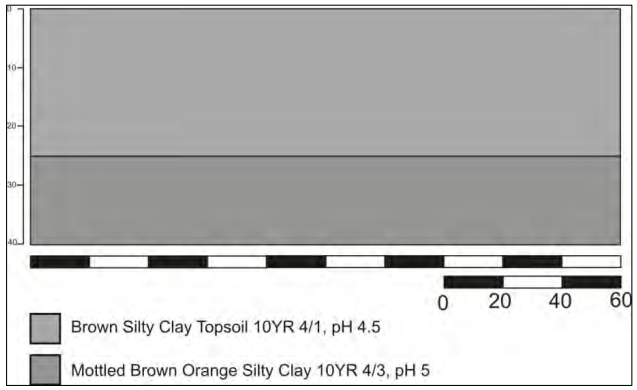
Transect	Soil Stratigraphy	Photo	Stratigraphic Profile
Transect Five **Length: 2m** **Orientation: N-S** **Grid Co-Ords:** **Start** 341338.521E 5757777.881N **End** 341340.311E 5757779.358N	1. 0-340mm: Moist very dark grey silty clay with modern rubbish, including wood, plastic and bricks (7.5YR 3/1) (pH 4.5). 2. 340-460mm Moist, compact, brown clay base, water seeping through at base (7.5 YR 4/6) (pH 4). **Cultural Material: NONE**		

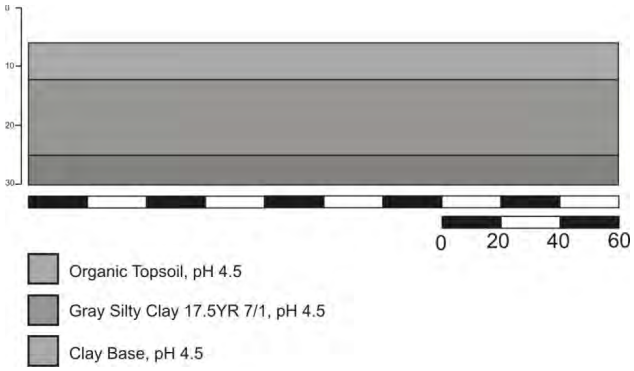
Transect	Soil Stratigraphy	Photo	Stratigraphic Profile
Transect Six **Length: 2m** **Orientation: E-W** **Grid Co-Ords:** **Start** 341270.734E 5757829.108N **End** 341271.825E 5757829.203N	1. 0-260mm: Brown silty clay organic topsoil, containing worms and roots (10YR 4/1) (pH 4.5). 2. 260-380mm Mottled orange brown moist silty clay (10 YR 4/3) (pH 5). 3. 380-430mm: Orange clay base with ironstone inclusions (10YR 5/6) (pH 5). **Cultural Material: NONE**		

Transect	Soil Stratigraphy	Photo	Stratigraphic Profile
Transect Seven **Length: 2m** **Orientation: E-W** **Grid Co-Ords:** **Start** 341269.363E 5757845.808N **End** 341270.155E 5757849.248N	1. 0-210mm: Brown silty clay organic topsoil, containing worms and roots. Contains one silcrete flake. (10YR 4/1) (pH 4.5). 2. 210-320mm Mottled orange brown moist silty clay (10 YR 4/3) (pH 5). 3. 320-390mm: Orange clay base with ironstone inclusions (10YR 5/6) (pH 5). **Cultural Material:** Yes – silcrete flake located at depth of 10-20cm		

Transect	Soil Stratigraphy	Photo	Stratigraphic Profile
Transect Eight **Length: 2m** **Orientation: E-W** **Grid Co-Ords:** **Start** 341310.967E 5757849.041N **End** 341311.619E 5757846.616N	1. 0-370mm: Coarse grained light brown moist sand (7.5YR 5/3) (pH 5). 2. 370-640mm: Mottled Brown Orange Silty Clay (10YR 4/3) (pH 5). **Cultural Material: NONE**		

Transect	Soil Stratigraphy	Photo	Stratigraphic Profile
Transect Nine **Length: 2m** **Orientation: E-W** **Grid Co-Ords:** **Start** 341313.570E 5757833.041N **End** 341315.836E 5757833.735N	1. 0-350mm Mottled orange brown moist silty clay, 1 quartzite artefact. (10 YR 4/3) (pH 5). 2. 350-390mm: Orange clay base with ironstone inclusions (10YR 5/6) (pH 5). **Cultural Material:** Quartzite flake located at a depth of 20-30cm		

Transect	Soil Stratigraphy	Photo	Stratigraphic Profile
Transect Ten **Length: 2m** **Orientation: E-W** **Grid Co-Ords:** **Start** 341353.117E 5757890.019N **End** 341356.155E 5757890.685N	1. 0-250mm Mottled orange brown moist silty clay. Very boggy and contains glass, brick and rubble (10 YR 4/3) (pH 5). 2. 250-400mm: Orange clay base with ironstone inclusions (10YR 5/6) (pH 5). **Cultural Material: NONE**	N/A	

Transect	Soil Stratigraphy	Photo	Stratigraphic Profile
Transect Eleven **Length: 2m** **Orientation: E-W** **Grid Co-Ords:** **Start** 341379.544E 5757846.953N **End** 341381.695E 5757846.021N	1. 0-60mm: Organic silty topsoil layer (7.5YR 6/2) (pH 4.5). 2. 60-190mm Light grey silty clay, containing fragments of charcoal, brick and rubble (7.5 YR 7/1) (pH 4.5). 3. 350-400mm: Orange moist clay base with ironstone inclusions (10YR 4/3) (pH 4.5). **Cultural Material: NONE**		

Shovel Probe Soils and Stratigraphy

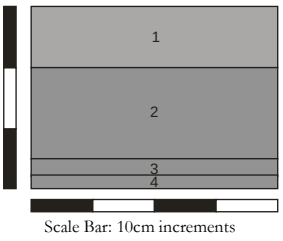
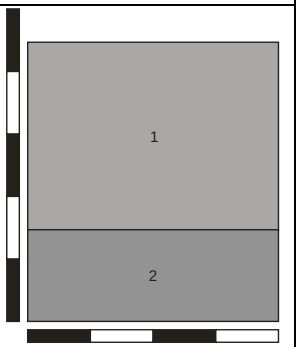
Two shovel test probes were excavated in 76 Reid Parade in order to further test the sub-surface stratigraphy of the Activity Area. These shovel probes demonstrated the same sub-surface stratigraphic profile that was further established during the excavation of BT 1, 2, 3, 4 & 5.

Eight additional radial shovel probes were excavated around BT 7 and BT 9, at 5m intervals. The purpose of these shovel probes was to test for additional Aboriginal cultural material and establish the site extent of VAHR 7921-1427 and VAHR 7921-1428. All eight shovel probes displayed a consistent soil profile, a layer of dark grey silty clay organic topsoil, over a layer of orange brown silty clay. The depths of the shovel probes ranged from 140mm to 350mm.

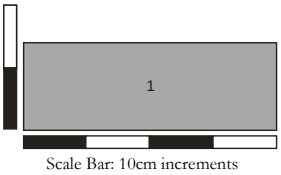
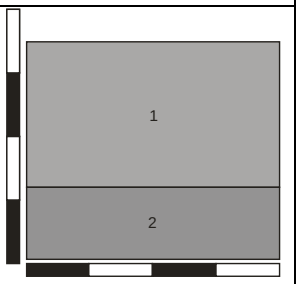
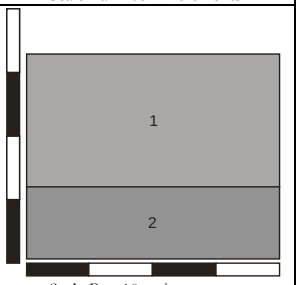
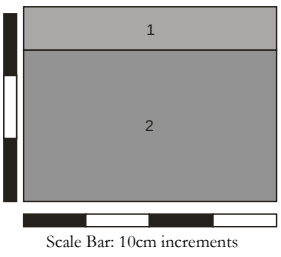
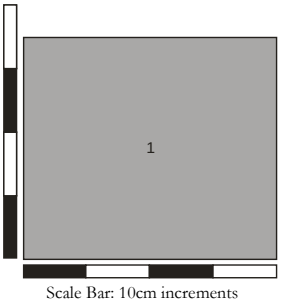
Shovel Probes – Cultural Material

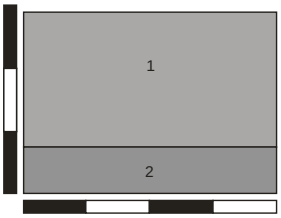
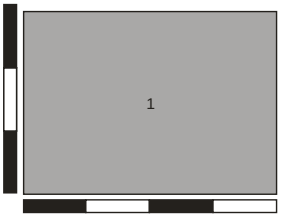
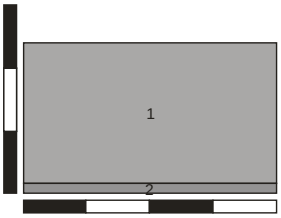
No additional Indigenous cultural material was found in any of the shovel probes. A summary of excavation data for the shovel probes is contained in Table 4

Table 4: A summary of excavation data for shovel probes.

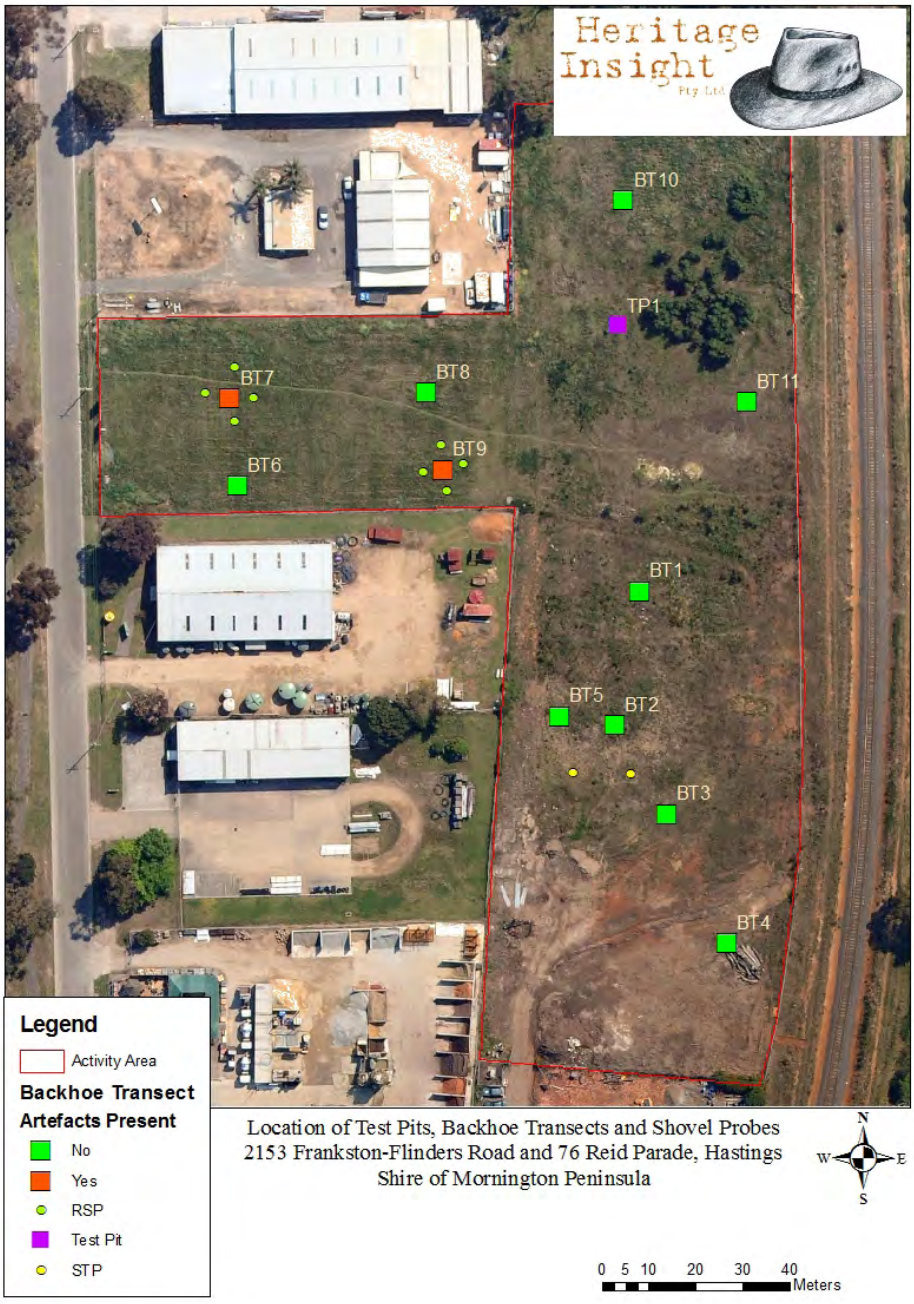
Shovel Probes	Soil Stratigraphy	Photo	Stratigraphic Profile
SP1 Grid Co-ords: 341356.894E 5757768.281N	0-10cm: 7.5YR 3/1 Very dark grey fill, pH 4.5 10-25cm: 7.5YR 3/1 Very dark gray sandy silty fill, pH 4 25-28cm: 7.5YR 3/2 Dark brown silt, pH 4 28-30cm: 7.5YR 4/6 Strong brown clay, pH 4		 Scale Bar: 10cm increments
SP2 Grid Co-ords: 341342.188E 5757767.717N	0-30cm: 7.5YR 3/1 Very dark grey fill. pH 4.5 30-44cm: 7.5YR 3/1 Very dark gray silty clay fill, pH 4		 Scale Bar: 10cm increments

Shovel Probe Radials	Soil Stratigraphy	Photo	Stratigraphic Profile

SPR1 Grid Co-ords: 341274.085E 5757847.737N	0-14cm: 10YR 4/1 Dark grey silty clay topsoil, pH 6		 Scale Bar: 10cm increments
SPR2 Grid Co-ords: 341269.859E 5757854.351N	0-23cm: 10YR 4/1 Dark grey silty clay topsoil, pH 6 23-34cm: 10YR 4/3 Brown silty clay, pH 5		 Scale Bar: 10cm increments
SPR3 Grid Co-ords: 341263.780E 5757848.727N	0-21cm: 10YR 4/1 Dark grey silty clay topsoil, pH 6 21-32cm: 10YR 4/3 Brown silty clay, pH 5		 Scale Bar: 10cm increments
SPR4 Grid Co-ords: 341270.046E 5757842.830N	0-7cm: 10YR 4/1 Dark grey silty clay topsoil, pH 6 7-24cm: 10YR 4/3 Brown silty clay, pH 5		 Scale Bar: 10cm increments
SPR5 Grid Co-ords: 341318.789E 5757833.633N	0-35cm: 10YR 4/1 Dark grey silty clay topsoil, pH 6		 Scale Bar: 10cm increments

SPR6 Grid Co-ords: 341315.211E 5757827.900N	0-22cm: 10YR 4/1 Dark grey silty clay topsoil, pH 6 22-29cm: 10YR 5/6 Yellowish brown clay, pH5		 Scale Bar: 10cm increments
SPR7 Grid Co-ords: 341310.217E 5757831.915N	0-29cm: 10YR 4/1 Dark grey silty clay topsoil, pH 6		 Scale Bar: 10cm increments
SPR8 Grid Co-ords: 341314.135E 5757837.721N	0-23cm: 10YR 4/1 Dark grey silty clay topsoil, pH 6 23-25cm: 10YR 5/6 Yellowish brown clay, pH5		 Scale Bar: 10cm increments

The following maps show the extent of sub-surface testing and location of Test Pits, Machine Test Pits and Shovel Probes.



Map 6: Location of Test Pits, Backhoe Transects and Shovel Probes

Map 7: Close up of location of radial shovel probes.

7.3 Complex Assessment – Discussion and Conclusions

The desktop, standard and complex assessments have demonstrated that Indigenous cultural heritage is present within the activity area. Two isolated artefacts VAHR 7921-1427 and VAHR 7921-1428 were identified within the western section of the Activity Area on the property known at 2153 Frankston-Flinders Road, Hastings (see Map 7).

The presence of Indigenous stone artefacts demonstrate that Indigenous people utilised this area. The proximity to the coastline, the resources provided from nearby swampy areas and the fresh water source of Warragine Creek would have combined to make this a resource rich area.

The low density nature of the isolated artefacts are not representative of an established camp or work area, but rather transient use of the landscape.

As the Activity Area is comprised of a low lying flood plain and water logged, it is unlikely that the area would have provided a good camping area. As the Activity Area is highly disturbed and the location where the artefacts were found has been disturbed through repeated ploughing and furrowed, the artefacts are not considered to be *in situ*. It is even possible that the topsoil in this section of the Activity Area has been introduced as part of the agricultural land use history.

As the artefacts are not deemed to be *in situ*, very little information can be gained with scientific analysis.

The activity area comprises the one landform, that is flat flood plain, and the geology of the activity area is characteristic of wider Hastings area. Shallow soil deposits of a moist silty clay overlying a sterile clay base. The eastern half of the Activity Area is considered to have undergone significant ground disturbance and contains no potential for Indigenous archaeological material. The mounded soil identified in the southern section of property during the Standard Assessment was revealed to be fill during excavation of machine transects. The western half of the Activity Area has undergone modification and ploughing and is disturbed, however two isolated Aboriginal artefacts were located in the top soils in this area. These artefacts are not *in situ*, and may even be introduced to the area with soil brought in to improve farming soils.

8. Details of Cultural Heritage within the Activity Area

8.1 Indigenous Cultural Heritage within the Activity Area

Two Aboriginal places were located during this cultural heritage assessment. VAHR 7921-1427 and VAHR 7921-1428 were located during the complex assessment. Details of both sites are included below.

These two Aboriginal archaeological sites – VAHR 7921-1427 and VAHR 7921-1428 have been registered with AAV. These are described in the site gazetteer. Site locations are shown in Table 5 and 7. It should be noted that the concept of 'site' as is used here, is an entirely arbitrary definition used to describe a concentration of artefacts in the soil and has little meaning in the archaeological record. The artefacts are not clearly associated within occupational activity, very little information can be inferred from an isolated artefact that is not *in situ*. The presence of the artefacts indicates that Indigenous people utilised the landscape. However the ploughed nature of the paddocks and the soil type present suggest that the soil could perhaps have been introduced.

8.2 2153 Frankston-Flinders Road, Hastings IA 1 (VAHR 7921-1427)

The Aboriginal Place Frankston-Flinders Road, Hastings IA 1 (VAHR 7921-1427) is located in the parcel of land known as 2153 Frankston-Flinders Road, Hastings, Parish of Tyabb, Mornington Peninsula Shire.

Summary details of the Aboriginal Place are shown in Table 4 & 5.

8.2.1 Nature and Extent of Frankston-Flinders Road, Hastings IA 1 (VAHR 7921-1427)

Frankston-Flinders Road, Hastings IA 1 (VAHR 7921-1427) is an isolated artefact, located on the rise of a ploughed furrow on an inland low lying plain. This artefact was located in sub-surface deposits, in the top 10cm of a ploughed paddock. The artefact was retrieved in the process of mechanical sieving from a backhoe transect.

No other Indigenous cultural material was retrieved from backhoe transect 7. Four shovel probe radials were excavated around backhoe transect 7 and no additional Indigenous cultural material was identified. Therefore, the artefact was determined to be an isolated artefact and the site extent was determined as a single point.

This isolated artefact was located on a low lying inland plain and represents transient use of the landscape by Indigenous people. Given the ploughed nature of the paddock, the artefact is not considered to be *in situ* and there is a possibility that the topsoil layer could contain introduced elements, which may suggest that the artefact does not originate from the Activity Area.

8.2.2 Significance of Frankston-Flinders Road, Hastings IA 1 (VAHR 7921-1427)

The significance of the Aboriginal Place Frankston-Flinders Road, Hastings IA 1 (VAHR 7921-1427) has been assessed against the Australia ICOMOS Burra Charter Criteria for the assessment of cultural significance (Australia ICOMOS, 1999), see Section 6.1.4: Assessment of Cultural Significance of Aboriginal Places in the Activity Area.

Aesthetic Value

The site recorded has no particular aesthetic value. This is largely because of the significant alteration of to the landscape within the Activity Area and therefore the context of the site. This includes modifications to the landforms on which the archaeological site VAHR 7921-1427 is located. However, in keeping with the Burra Charter's principle that "…cultural significance may change as a result of the continuing history of the place..." it may be possible to enhance the aesthetic values of some sites by sympathetic landscape treatment in future.

Scientific Value

The Aboriginal Place Frankston-Flinders Road, Hastings IA 1 (VAHR 7921-1427) has been assessed as being of low scientific value because of the following reasons: it contains a small number or limited range of cultural materials, the site is in a deteriorated condition with a high degree of disturbance; some cultural materials remaining and isolated artefacts and artefact scatters are a common occurrence in the geographic region. Table 5 below details the assessment of scientific significance for the Aboriginal Place Frankston-Flinders Road, Hastings IA 1 (VAHR 7921-1427).

Table 5: Assessment of Scientific Significance of Frankston-Flinders Road, Hastings IA 1 (VAHR 7921-1427)

[VAHR] No	Site Contents	Site Condition	Representativeness	Overall Scientific Significance
7921-1427	1	1	1	3 (Low)

Social Value

Many Indingenous people regard archaeological sites as holding considerable social and cultural value, irrespective of their scientific significance. This arises not only from the material remains which represent a connection to their ancestors, but also from beliefs in the association of archaeological sites and land or 'country'. Protection of archaeological sites and remnant sections of landscape form part of their traditional obligations to looking after country, which were handed down to them by their ancestors. This archaeological site is likely to be regarded as being of high social and cultural value to the Indigenous community.

Statement of Cultural Heritage Significance

The Aboriginal Place Frankston-Flinders Road, Hastings IA 1 (VAHR 7921-1427) is considered to be of low cultural heritage significance. This is due to the low aesthetic value of the site owing to the significant alteration of the landscape on which the Aboriginal Place is located and the low scientific value of the site. It is however noted

that the Aboriginal Place Frankston-Flinders Road, Hastings IA 1 (VAHR 7921-1427) is likely to be of some social and historical significance, particularly to the Indigenous community.

Table 6: Frankston-Flinders Road, Hastings IA 1 (VAHR 7921-1427)

Name	Frankston-Flinders Road, Hastings IA 1 (VAHR 7921-1427)
GDA 95 Coordinates	341269E/5757845N
Site Extent	Single point
Cultural Materials	1 silcrete angular fragment
Aspect	Sub-surface
Condition and Integrity	Poor, disturbed, not in situ
Context	Organic moist silty clay topsoil
pH	5
Landform	Low Lying Inland Plain
Vegetation	Exotic pastoral grasses
Nearest Source of Potable Water	Permanent: Warragine Creek
Sources of Ground Disturbance	Agricultural: ploughing
Photograph showing location of Frankston-Flinders Road, Hastings IA 1 **Photo by R. McAlister (19/06/12) facing west.**	
Photograph of Artefact from Frankston Flinders Road,	

Hastings IA 1		

Site Extent Plan	

Site Context Plan

8.3 2153 Frankston-Flinders Road, Hastings IA 2 (VAHR 7921-1428)

The Aboriginal Place Frankston-Flinders Road, Hastings IA 2 (VAHR 7921-1428) is located in the parcel of land known as 2153 Frankston-Flinders Road, Hastings, Parish of Tyabb, Mornington Peninsula Shire.

Summary details of the Aboriginal Place are shown in Table 6 & 7.

8.3.1 Nature and Extent of Frankston-Flinders Road, Hastings IA 2 (VAHR 7921-1428)

Frankston-Flinders Road, Hastings IA 2 (VAHR 7921-1428) is an isolated artefact, located on the rise of a ploughed furrow on an inland low lying plain. This artefact was located in sub-surface deposits, in the top 10cm of a ploughed paddock. The artefact was retrieved in the process of mechanical sieving from a backhoe transect.

No other cultural material was retrieved from backhoe transect 9. Four shovel probe radials were excavated around backhoe transect 9 and no additional cultural material was identified. Therefore, the artefact was determined to be an isolated artefact and the site extent was determined as a single point.

This isolated artefact is located on a low lying inland plain and represents transient use of the landscape by Indigenous people. Given the ploughed nature of the paddock, the artefact is not considered to be *in situ* and there is a possibility that the topsoil layer could contain introduced elements, which may suggest that the artefact does not originate from the Activity Area.

8.3.2 Significance of Frankston-Flinders Road, Hastings IA 2 (VAHR 7921-1428)

The significance of the Aboriginal Place Frankston-Flinders Road, Hastings IA 2 (VAHR 7921-1428) has been assessed against the Australia ICOMOS Burra Charter Criteria for the assessment of cultural significance (Australia ICOMOS, 1999), see Section 6.1.4: Assessment of Cultural Significance of Aboriginal Places in the Activity Area.

Aesthetic Value

The site recorded has no particular aesthetic value. This is largely because of the significant alteration to the landscape within the Activity Area and therefore the context of the site, which includes modifications to the landforms on which the archaeological site is located. However, in keeping with the Burra Charter's principle that "…cultural significance may change as a result of the continuing history of the place..." it may be possible to enhance the aesthetic values of some sites by sympathetic landscape treatment in future.

Scientific Value

The Aboriginal Place Frankston-Flinders Road, Hastings IA 2 (VAHR 7921-1428) has been assessed as being of low scientific value because of the following reasons: it contains a small number or limited range of cultural materials, the site is in a deteriorated condition with a high degree of disturbance; some cultural materials remaining and isolated artefacts and artefact scatters are a common occurrence in the geographic region. Table 7 below details the assessment of scientific significance for the Aboriginal Place Frankston-Flinders Road, Hastings IA 2 (VAHR 7921-1428).

Table 7: Assessment of Scientific Significance of Frankston-Flinders Road, Hastings IA 2 (VAHR 7921-1428)

[VAHR] No	Site Contents	Site Condition	Representativeness	Overall Scientific Significance
7921-1428	1	1	1	3 (Low)

Social Value

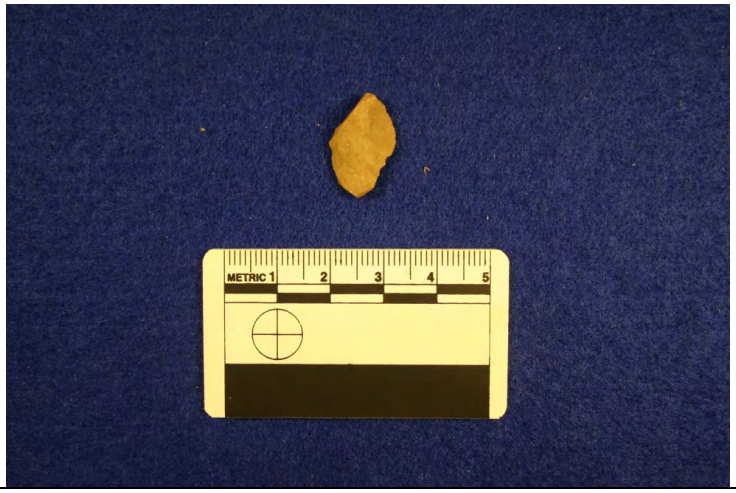
Many Indigenous people regard archaeological sites as holding considerable social and cultural value, irrespective of their scientific significance. This arises not only from the material remains which represent a connection to their ancestors, but also from beliefs in the association of archaeological sites and land or 'country'. Protection of archaeological sites and remnant sections of landscape form part of their traditional obligations to looking after country, which were handed down to them by their ancestors. This archaeological site is likely to be regarded as being of high social and cultural value to the Indigenous community.

Statement of Cultural Heritage Significance

The Aboriginal Place Frankston-Flinders Road, Hastings IA 2 (VAHR 7921-1428) is considered to be of low cultural heritage significance. This is due to the low aesthetic value of the site owing to the significant alteration of the landscape on which the Aboriginal Place is located and the low scientific value of the site. It is however noted that the Aboriginal Place Frankston-Flinders Road, Hastings IA 2 (VAHR 7921-1428) is likely to be of some social and historical significance, particularly to the Aboriginal community.

Table 8: Frankston-Flinders Road, Hastings IA 2 (VAHR 7921-1428)

Name	Frankston-Flinders Road, Hastings IA 2 (VAHR 7921-1428)
GDA 95 Coordinates	341313E/5757833N
Site Extent	Single point
Cultural Materials	Quartzite broken flake
Aspect	Sub-surface
Condition and Integrity	Poor, disturbed, not in situ
Context	Organic moist silty clay topsoil
pH	5
Landform	Low Lying Inland Plain
Vegetation	Exotic pastoral grasses
Nearest Source of Potable Water	Permanent: Warragine Creek
Sources of Ground Disturbance	Agricultural: ploughing

Photograph showing location of Frankston-Flinders Road, Hastings IA 2 **Photo by R. McAlister (19/06/12) facing south.**	
Photograph of Artefact from Frankston Flinders Road, Hastings IA 1	

Site Extent Plan	

Site Context Plan

8.4 Statement of Significance in Accordance with Aboriginal Tradition

A statement of significance for Aboriginal sites VAHR 7921-1427 and 7921-1428 was requested from the BoonWurrung Foundation and the Bunurong Land Council, however, neither Aboriginal community provided a statement for these sites. However, it should be noted that Aboriginal people consider all Aboriginal sites to be significant.

9. Consideration of Section 61 Matters – Impact Assessment

9.1 Section 61 matters in relation to sites VAHR 7921-1427 and 7921-1428 VAHR

9.1.1 Can harm to sites VAHR 7921-1427 and 7921-1428 be avoided or minimised?

In accordance with Section 61 of the Aboriginal Heritage Act 2006, it is stated that the activity will cause harm to the Aboriginal archaeological sites VAHR 7921-1427 and 7921-1428. These sites comprise two isolated stone artefacts located in a disturbed context. These artefacts have already been collected by the cultural heritage advisor. It is considered unlikely that more cultural heritage material will be located within the Activity Area given the disturbed nature of the Activity Area.

These sites will be impacted by proposed construction activities. Harm cannot be avoided to Aboriginal Cultural Heritage Places 7921-1427 and 7921-1428 because:

- The proposed industrial development has been specifically designed to make efficient use of the available space and cannot be changed without considerable redesign. The sponsor cannot modify the design of the development to avoid impact to the Aboriginal cultural heritage without substantial economic considerations, which would be unjustifiable taking into account the low scientific significance and highly disturbed context of the two Aboriginal cultural heritage places identified.

- The sites were effectively salvaged during the complex assessment. The activity will harm the locations in which the sites were found. The complex assessment has demonstrated that the site has little research potential. Physical evidence has been collected from the site and serves as a representative sample of its contents.

- Aboriginal Cultural Heritage Places VAHR 7921-1427 and 7921-1428 have low scientific significance. Salvage works must have a viable methodology that addresses data collection requirements for current research questions and contributes towards the understanding of Aboriginal life in the region. The Activity Area has already been subject to significant ground disturbance and modification. The artefacts are not *in situ* and there is the potential that the soil deposits the artefacts were located in could be introduced to the area. Considering that the site has low scientific significance it is argued that management of harm by salvage excavation is not considered likely to make any further contribution to archaeological knowledge of the site, the Activity Area or the surrounding region. Based on the incapacity of this place to address current research questions, no further archaeological investigation or salvage is recommended.

9.1.2 Are specific measures needed for the management of sites 7921-1427 and 7921-1428?

There are measures needed for the custodianship and management of cultural heritage material of sites VAHR 7921-1427 and 7921-1428 identified during the complex assessment of the Activity Area.

These management measures are discussed in detail in Section 10, Recommendation 1 & 2.

9.3 Necessary Contingency Plans

There are several contingency plans that may be necessary during the project. In particular, it is necessary to have a contingency in place for the unexpected discovery of cultural material and for the unexpected discovery of a burial. These and other contingency plans are discussed in detail in Section 11.

10. PART 2 – CULTURAL HERITAGE MANAGEMENT RECOMMENDATIONS

Based on the results of the archaeological assessment, the following management recommendations are made for land comprising the Activity Area. Please note that once this CHMP is approved these recommendations become compliance requirements.

10.1 VAHR 7921-1427 and 7921-1428

For the reasons outlined in Section 9.1, no management measures are required prior to the activity commencing: harm cannot be avoided due to economic viability, the construction methodology, lack of research potential, effective salvage during the complex assessment and lack of scientific significance. The following recommendations are needed for the management of the cultural material collected from VAHR 7921-1427 and 7921-1428.

Management Recommendation 1

As discussed in Section 9, this management plan allows for VAHR 7921-1427 and 7921-1428 to be harmed by the proposed activity. This is due to the sites being isolated artefacts located within a disturbed context. No specific measures are required to manage these Aboriginal places prior to and during the activity. It is the recommendation of this plan that no further works are necessary to identify or protect Aboriginal cultural heritage relating to this site.

Management Recommendation 2:

This recommendation relates to the post activity treatment of the artefacts associated with VAHR 7921-1427 and 7921-1428. The artefacts have been removed from the site and analysed during this assessment by the cultural heritage advisor. The artefacts must be retained at the offices of Heritage Insight Pty Ltd until the site works have been completed.

The following treatment must be applied to the stone artefacts removed from VAHR 7921-1427 and 7921-1428.

- The artefacts will be catalogued and placed in a durable container, together with details of provenance and a copy of the artefact catalogue and management plan.
- The artefacts must be re-buried at a location within the Activity Area agreed upon in consultation with the relevant Aboriginal community representatives.
- It is suggested by the sponsor and the cultural heritage advisor that reburial within the areas of the development designated for landscaping purposes would be a good location, these garden areas are shown on Map 2.
- The location of the reburied artefacts must be recorded by the cultural heritage advisor and recorded with the Victorian Aboriginal Heritage Register (VAHR).
- The cost of reburial must be borne by the Sponsor.
- Reburial must occur within three months of the final building inspection under the building permit.

Management Recommendation 3:

In order to provide a system for notification of the discovery of Aboriginal cultural heritage during construction works, it will first be necessary to provide an induction to any future project managers and construction workers about the discovery of Aboriginal cultural heritage on site. This induction must take place prior to the commencement of the proposed activity. There will also need to be a system of reporting any possible Aboriginal cultural heritage items which are discovered which must be built into any development or environmental management plan (EMP) for the site. Some recommendations for notifying the discovery of Aboriginal cultural heritage are contained below.

- A site induction or inductions must be held with project managers and any construction workers on site, prior to the commencement of the proposed activity. The purpose of the inductions will be to describe items of Aboriginal cultural heritage to personnel engaged in construction, to create an awareness of their cultural value and to inform personnel about the procedure for reporting suspected Aboriginal cultural heritage.

  This induction must be presented by a cultural heritage advisor in association with a relevant Aboriginal person or a RAP representative, if a RAP has been appointed by the time works commence.

Management Recommendation 4:

The contingency plans contained in Section 11 of this report form part of the Cultural Heritage Management Plan and *must* be incorporated into the development or Environmental Management Plan for the project. A copy of this management plan must be held on site at all times.

11. Contingency Plans

The approved form a CHMP states that, in accordance with Clause 13(1) Schedule 2 of the *Aboriginal Heritage Regulations 2007*, a management plan must also include specific contingency plans for:

(a) the resolution of any disputes between the sponsor and relevant registered Aboriginal parties in relation to the implementation of the plan or the conduct of the activity;
(b) reviewing compliance with the cultural heritage management plan and mechanisms for remedying non-compliance;
(c) the management of Aboriginal cultural heritage found during the activity;
(d) the notification, in accordance with the Act, of the discovery of Aboriginal cultural heritage during the carrying out of the activity.

Contingency plans are required, even in situations where it has been assessed that there is a low probability of Aboriginal archaeological sites being located within an Activity Area.

11.1 Section 61 Matters

Section 61 of the Aboriginal Heritage Act 2006 is concerned with the avoidance and/or minimisation of harm to Indigenous cultural heritage, and any specific measures required for the management of Indigenous cultural heritage during and following the activity. Section 61 matters pertaining to the sites discovered during this CHMP are discussed in Section 9. Section 61 matters pertaining to undiscovered cultural heritage that may become exposed during the activity are discussed in Section 11.3.

11.2 Dispute Resolution

As no RAP has yet been appointed for the region in which the Activity Area is located, and the Secretary is evaluating the CHMP, there is no requirement for a dispute resolution between a RAP and the Sponsor at this stage.

11.3 Discovery of Indigenous cultural heritage during works

11.3.1 Unexpected discovery of Human Remains

Although it is highly unlikely that Indigenous human burials will occur within the Activity Area, the consultants are obliged to provide advice in the event that a human burial is discovered.

If any suspected human remains are found during any activity, works must cease. The Victoria Police and the State Coroner's Office must be notified immediately. If there are reasonable grounds to believe that the remains are Aboriginal, the Department of Sustainability and Environment's Emergency Coordination Centre must be contacted immediately on 1300 888 544.

Any such discovery at the Activity Area must follow these steps.

1. Discovery:

- If suspected human remains are discovered, all activity in the vicinity must stop to ensure minimal damage is caused to the remains; and,
- The remains must be left in place, and protected from harm or damage.

2. Notification:

- Once suspected human skeletal remains have been found, the Coroners Office and the Victoria Police must be notified immediately;
- If there is reasonable grounds to believe that the remains could be Aboriginal, the DSE Emergency Co-ordination Centre must be immediately notified on 1300 888 544; and
- All details of the location and nature of the human remains must be provided to the relevant authorities.
- If it is confirmed by these authorities that the discovered remains are Aboriginal skeletal remains, the person responsible for the activity must report the existence of the human remains to the Secretary, DPCD in accordance with s.17 of the Act.

3. Impact Mitigation or Salvage:

- The Secretary, after taking reasonable steps to consult with any Aboriginal person or body with an interest in the Aboriginal human remains, will determine the appropriate course of action as required by s.18(2)(b) of the Act.
- An appropriate impact mitigation or salvage strategy as determined by the Secretary must be implemented (This will depend on the circumstances in which the remains were found, the number of burials found and the type of burials and the outcome of consultation with any Aboriginal person or body);

Note: In consultation with any relevant RAP, a sponsor may consider incorporating a contingency plan to reserve an appropriate area for reburial of any recovered human remains that may be discovered during the activity. This may assist the Secretary in determining an appropriate course of action.

4. Curation and further analysis:

- The treatment of salvaged Aboriginal human remains must be in accordance with the direction of the Secretary.

5. Reburial:

- Any reburial site(s) must be fully documented by an experienced and qualified archaeologist, clearly marked and all details provided to AAV;

Appropriate management measures must be implemented to ensure that the remains are not disturbed in the future.

11.3.2 Unexpected discovery of isolated or dispersed Indigenous cultural heritage

The following procedure must occur in the event of the discovery of isolated or dispersed cultural heritage:

- In the event that a RAP has been appointed, the RAP must be contacted in the first instance. The cultural heritage advisor must facilitate the involvement of the RAP. This would include an on-site investigation and assessment of the significance of the cultural heritage. In the event that a RAP has not yet been appointed, the following must occur:
- The location of the suspected Aboriginal cultural heritage must be fenced off with temporary webbing.
- All works must cease within 10m of the general area where the suspected Aboriginal cultural heritage is located and a cultural heritage advisor notified of the discovery within 24 hours.
- Work may continue in other parts of the Activity Area, away from the 10 metre buffer around the webbing.
- The suspected Aboriginal cultural heritage must be examined by a qualified cultural heritage advisor, a relevant Aboriginal community representative and a representative of the sponsor. The cultural heritage advisor must complete site records and advise on management strategies for the feature;
- Within a period of 3 working days a decision/recommendation must be made by the cultural heritage advisor, in consultation with the sponsor and relevant Aboriginal community representative, on a process to be followed to manage or salvage the Aboriginal cultural heritage in a manner which complies with the *Aboriginal Heritage Regulations 2007* and which is culturally appropriate.

- Works may recommence within the area of exclusion:
  - When the appropriate protective measures have been taken;
  - When the relevant Aboriginal cultural heritage records have been updated and/or completed;

If the site cannot be retained within the development, then the site must be salvaged using an appropriate methodology as defined in the *AAV Guide to Preparing Cultural Heritage Management Plans 2010*.

11.3.3 Unexpected discovery of stratified occupation deposits

The following procedure must occur in the event of the discovery of stratified occupation deposits:

- In the event that a RAP has been appointed, the RAP must be contacted in the first instance. The cultural heritage advisor must facilitate the involvement of the RAP. This would include an on-site investigation and assessment of the significance of the cultural heritage. In the event that a RAP has not yet been appointed, the following must occur:

- The location of the suspected Aboriginal cultural heritage must be fenced off with temporary webbing.

- All works must cease within 10m of the general area where the suspected Aboriginal cultural heritage is located and a cultural heritage advisor notified of the discovery within 24 hours.

- Work may continue in other parts of the Activity Area, away from the 10 metre buffer around the webbing.

- The suspected Aboriginal cultural heritage must be examined by a qualified cultural heritage advisor, a relevant Aboriginal community representative and a representative of the sponsor. The cultural heritage advisor must complete site records and advise on management strategies for the feature;

- Within a period of 3 working days a decision/recommendation must be made by the cultural heritage advisor, in consultation with the sponsor and relevant Aboriginal community representative, on a process to be followed to manage or salvage the Aboriginal cultural heritage in a manner which complies with the *Aboriginal Heritage Regulations 2007* and which is culturally appropriate.

- Works may recommence within the area of exclusion:

  - When the appropriate protective measures have been taken;

  - When the relevant Aboriginal cultural heritage records have been updated and/or completed;

If the site cannot be retained within the development, then the site must be salvaged using an appropriate methodology as defined in the AAV Guide to Preparing Cultural Heritage Management Plans 2010.

11.3.4 Unexpected discovery of a coastal shell midden

Given the Activity Area is not located on any part of the Victorian coastline it is extremely unlikely that coastal shell middens will be located during works. Nevertheless the consultants are obliged to provide advice in the event that such a site is discovered.

The following procedure must occur in the event of the discovery of a coastal shell midden:

- In the event that a RAP has been appointed, the RAP must be contacted in the first instance. The cultural heritage advisor must facilitate the involvement of the RAP. This would include an on-site investigation and assessment of the significance of the cultural heritage. In the event that a RAP has not yet been appointed, the following must occur:

- The location of the suspected midden must be fenced off with temporary webbing.

- All works must cease within 10m of the general area where the suspected midden is located and a cultural heritage advisor notified of the discovery within 24 hours.

- Work may continue in other parts of the Activity Area, away from the 10 metre buffer around the webbing.

- The suspected Aboriginal cultural heritage must be examined by a qualified cultural heritage advisor, a relevant Aboriginal community representative and a representative of the sponsor. The cultural heritage advisor must complete site records and advise on management strategies for the feature;

- Within a period of 3 working days a decision/recommendation must be made by the cultural heritage advisor, in consultation with the sponsor and relevant Aboriginal community representative, on a process to be followed to manage or salvage the Aboriginal cultural heritage in a manner which complies with the *Aboriginal Heritage Regulations 2007* and which is culturally appropriate.

- Works may recommence within the area of exclusion:

  - When the appropriate protective measures have been taken;

  - When the relevant Aboriginal cultural heritage records have been updated and/or completed;

11.3.5 Unexpected discovery of a fresh water shell midden

Although it is unlikely that fresh water shell middens will occur within the Activity Area, the consultants are obliged to provide advice in the event that a human burial is discovered.

The following procedure must occur in the event of the discovery of a fresh water shell midden:

- In the event that a RAP has been appointed, the RAP must be contacted in the first instance. The cultural heritage advisor must facilitate the involvement of the RAP. This would include an on-site investigation and assessment of the significance of the cultural heritage. In the event that a RAP has not yet been appointed, the following must occur:

- The location of the suspected midden must be fenced off with temporary webbing.
- All works must cease within 10m of the general area where the suspected midden is located and a cultural heritage advisor notified of the discovery within 24 hours.
- Work may continue in other parts of the Activity Area, away from the 10 metre buffer around the webbing.
- The suspected Aboriginal cultural heritage must be examined by a qualified cultural heritage advisor, a relevant Aboriginal community representative and a representative of the sponsor. The cultural heritage advisor must complete site records and advise on management strategies for the feature;
- Within a period of 3 working days a decision/recommendation must be made by the cultural heritage advisor, in consultation with the sponsor and relevant Aboriginal community representative, on a process to be followed to manage or salvage the Aboriginal cultural heritage in a manner which complies with the *Aboriginal Heritage Regulations 2007* and which is culturally appropriate.

- Works may recommence within the area of exclusion:
  - When the appropriate protective measures have been taken;
  - When the relevant Aboriginal cultural heritage records have been updated and/or completed;

If a fresh water shell midden was located within the Activity Area it would be considered an extremely rare occurrence and as such every effort must be made to retain the site within the development. If the site cannot be retained within the development, then the site must be salvaged using an appropriate methodology as defined in the AAV Guide to Preparing Cultural Heritage Management Plans 2010.

11.3.6 Unexpected discovery of a mound site

Neither the standard or complex assessment identified any mound sites within the Activity Area. Although it is highly unlikely that fresh water shell middens will occur within the Activity Area, the consultants are obliged to provide advice in the event that such a site is discovered.

The following procedure must occur in the event of the discovery of a mound site:

- In the event that a RAP has been appointed, the RAP must be contacted in the first instance. The cultural heritage advisor must facilitate the involvement of the RAP. This would include an on-site investigation and assessment of the significance of the cultural heritage. In the event that a RAP has not yet been appointed, the following must occur:

- The location of the suspected mound site must be fenced off with temporary webbing.
- All works must cease within 10m of the general area where the suspected mound is located and a cultural heritage advisor notified of the discovery within 24 hours.
- Work may continue in other parts of the Activity Area, away from the 10 metre buffer around the webbing.
- The suspected Aboriginal cultural heritage must be examined by a qualified cultural heritage advisor, a relevant Aboriginal community representative and a representative of the sponsor. The cultural heritage advisor must complete site records and advise on management strategies for the feature;
- Within a period of 3 working days a decision/recommendation must be made by the cultural heritage advisor, in consultation with the sponsor and relevant Aboriginal community representative, on a process to be followed to manage or salvage the Aboriginal cultural heritage in a manner which complies with the *Aboriginal Heritage Regulations 2007* and which is culturally appropriate.

- Works may recommence within the area of exclusion:
  - When the appropriate protective measures have been taken;
  - When the relevant Aboriginal cultural heritage records have been updated and/or completed;

If a mound site was located within the Activity Area it would be considered a rare occurrence and as such every effort must be made to retain the site within the development. If the site cannot be retained within the development, then the site must be salvaged using an appropriate methodology as defined in the AAV Guide to Preparing Cultural Heritage Management Plans 2010.

11.3.7 Unexpected discovery of a quarry

Neither the standard or complex assessment identified any quarry sites within the Activity Area. Although it is highly unlikely that quarry sites will occur within the Activity Area, the consultants are obliged to provide advice in the event that such a site is discovered.

The following procedure must occur in the event of the discovery of a quarry site:

- In the event that a RAP has been appointed, the RAP must be contacted in the first instance. The cultural heritage advisor must facilitate the involvement of the RAP. This would include an on-site investigation and assessment of the significance of the cultural heritage. In the event that a RAP has not yet been appointed, the following must occur:

- The location of the suspected quarry site must be fenced off with temporary webbing.

- All works must cease within 10m of the general area where the suspected quarry is located and a cultural heritage advisor notified of the discovery within 24 hours.

- Work may continue in other parts of the Activity Area, away from the 10 metre buffer around the webbing.

- The suspected Aboriginal cultural heritage must be examined by a qualified cultural heritage advisor, a relevant Aboriginal community representative and a representative of the sponsor. The cultural heritage advisor must complete site records and advise on management strategies for the feature;

- Within a period of 3 working days a decision/recommendation must be made by the cultural heritage advisor, in consultation with the sponsor and relevant Aboriginal community representative, on a process to be followed to manage or salvage the Aboriginal cultural heritage in a manner which complies with the *Aboriginal Heritage Regulations 2007* and which is culturally appropriate.

- Works may recommence within the area of exclusion:

  - When the appropriate protective measures have been taken;

  - When the relevant Aboriginal cultural heritage records have been updated and/or completed;

If a quarry site was located within the Activity Area it would be considered a significant occurrence and as such every effort must be made to retain the site within the development. If the site cannot be retained within the development, then the site must be salvaged using an appropriate methodology as defined in the AAV Guide to Preparing Cultural Heritage Management Plans 2010.

11.3.8 Unexpected discovery of a stone arrangement

Neither the standard or complex assessment identified any stone arrangements within the Activity Area. Although it is highly unlikely that stone arrangement sites will occur within the Activity Area, the consultants are obliged to provide advice in the event that such a site is discovered.

The following procedure must occur in the event of the discovery of a stone arrangement:

- In the event that a RAP has been appointed, the RAP must be contacted in the first instance. The cultural heritage advisor must facilitate the involvement of the RAP. This would include an on-site investigation and assessment of the significance of the cultural heritage. In the event that a RAP has not yet been appointed, the following must occur:

- The location of the suspected stone arrangement must be fenced off with temporary webbing.
- All works must cease within 10m of the general area where the suspected stone arrangement is located and a cultural heritage advisor notified of the discovery within 24 hours.
- Work may continue in other parts of the Activity Area, away from the 10 metre buffer around the webbing.
- The suspected stone arrangement must be examined by a qualified cultural heritage advisor, a relevant Aboriginal community representative and a representative of the sponsor. In addition, an anthropologist must be engaged to provide, if possible, further information pertaining to the stone arrangement. The cultural heritage advisor must complete site records and advise on management strategies for the feature;
- Within a period of 3 working days a decision/recommendation must be made by the cultural heritage advisor, in consultation with the sponsor and relevant Aboriginal community representative, on a process to be followed to manage the site in a manner which complies with the *Aboriginal Heritage Regulations 2007* and which is culturally appropriate.

- Works may recommence within the area of exclusion:
  - When the appropriate protective measures have been taken;
  - When the relevant Aboriginal cultural heritage records have been updated and/or completed;

If a stone arrangement was located within the Activity Area it would be considered a rare and significant occurrence and as such must be retained within the development.

11.3.9 Unexpected discovery of other Indigenous cultural heritage

The following procedure must occur in the event of the discovery of any other suspected Aboriginal Cultural Heritage:

- In the event that a RAP has been appointed, the RAP must be contacted in the first instance. The cultural heritage advisor must facilitate the involvement of the RAP. This would include an on-site investigation and assessment of the significance of the cultural heritage. In the event that a RAP has not yet been appointed, the following must occur:
- The location of the suspected Aboriginal cultural heritage must be fenced off with temporary webbing.

- All works must cease within 10m of the general area where the suspected Aboriginal cultural heritage is located and a cultural heritage advisor notified of the discovery within 24 hours.

- Work may continue in other parts of the Activity Area, away from the 10 metre buffer around the webbing.

- The suspected Aboriginal cultural heritage must be examined by a qualified cultural heritage advisor, a relevant Aboriginal community representative and a representative of the sponsor. The cultural heritage advisor must complete site records and advise on management strategies for the feature;

- Within a period of 3 working days a decision/recommendation must be made by the cultural heritage advisor, in consultation with the sponsor and relevant Aboriginal community representative, on a process to be followed to manage or salvage the Aboriginal cultural heritage in a manner which complies with the *Aboriginal Heritage Regulations 2007* and which is culturally appropriate.

- Works may recommence within the area of exclusion:

  - When the appropriate protective measures have been taken;

  - When the relevant Aboriginal cultural heritage records have been updated and/or completed;

If the feature cannot be retained within the development, then the feature must be salvaged using an appropriate methodology as defined in the *AAV Guide to Preparing Cultural Heritage Management Plans 2010*.

11.4 Custody and Management of Aboriginal Cultural Heritage Recovered

In any case where previously unrecorded Aboriginal cultural material is located during the proposed, it will be the responsibility of the Cultural Heritage Advisor to:

- Catalogue the Aboriginal cultural heritage.
- The Aboriginal cultural heritage should be retained by the Cultural Heritage Advisor until the proposed works are completed.
- At the conclusion of works, the cultural heritage will be reburied within the Activity Area in a durable container, in clearly labelled bags, together with details of provenance and a copy of the artefact catalogue and management plan.
- The location of the re-buried cultural heritage will be recorded by the cultural heritage advisor and recorded with the VAHR;
- Any cultural material located during the carrying out of the works should be reburied at the same time and in the same place as the cultural material identified during the Complex Assessment of CHMP 12224.

11.6 Reviewing Compliance with the Plan

The sponsor must ensure that compliance with this plan is reviewed. A review process must be incorporated in the Environmental Management Plan or similar document for the project. It is recommended that each of the management actions recommended in Section 8 above be listed in the Environmental Management Plan. There must be a mechanism included in the plan (such as a checklist or database) to indicate when the recommended actions for Aboriginal cultural heritage have been carried out. The project manager must be responsible for maintaining this list. Any associated documentation which accompanies the actions must be recorded on the checklist or database.

The record of compliance must be maintained by the project manager at all times and must be available for inspection by either an Inspector under the Act or other representative of the Secretary.

It is illegal to harm cultural heritage outside of the recommendations contained within this management plan. Inspectors from Aboriginal Affairs Victoria may conduct CHMP compliance audits.

A checklist is provided below that specifies what measures will be undertaken to review compliance with the CHMP. The site manager must verify that the measures specified below have been undertaken.

CHECKLIST FOR REVIEWING COMPLIANCE WITH CHMP 11393		
	Yes	**No**
Prior to works occurring		
1: Have the contingency plans contained in Section 11.2 of this report been incorporated into the development or JEHA (Job Environment & Heritage Assessment) for the project?		
Identification of Aboriginal Cultural Heritage		
1: Has all activity within 10m ceased if 1-5 artefacts have been located or within the general area if a dense artefact scatter, *in situ* deposits, shell midden, hearth feature, stone or earth feature has been located?		
2: Has the Secretary been notified?		
3: Has a Cultural Heritage Advisor been notified?		
4: Have the artefacts been left in place?		
5: Has the find/s been protected (e.g. with fencing) if required?		
6: In relation to suspected human remains, have the Coroner's Office and Victoria Police been notified?		
7: Has an appropriate mitigation/salvage strategy been developed?		
8: Has the mitigation/salvage works been implemented?		
9: Have the salvaged finds/remains been treated in accordance with the direction of the RAP?		
Reburial Procedure: Human Remains		
1: Has a suitably qualified archaeologist been engaged to fully document the reburial site?		
2: Has the reburial site been clearly marked?		
3: Have all details been provided to AAV?		
4: Has a strategy been developed to ensure no further disturbance (such as Section 173 in the Planning and Provision Act)?		
Changes to Activity		
1: Has statutory approval been obtained for any changes to the activity?		

Review of this CHMP can be undertaken at any time by project delegates representing the Sponsor, or an agreed independent reviewer, to ensure that all parties are complying with the terms of this CHMP.

To ensure compliance with the terms of this CHMP The site manager must verify that the measures specified in the above checklist have been undertaken. If any of the following breaches occur the site manager must action the relevant remedy. The aim of this process must be resolve non-compliance issues by immediately actioning processes to remedy non-compliance through consultation with the Indigenous representatives, and the cultural heritage advisor.

If mechanisms for remedying non-compliance are not actioned and resolution cannot be reached then ultimately, the Minister may order a cultural heritage audit to be carried out. Details of cultural heritage audits can be obtained from Part 6, Division 1 of the Aboriginal Heritage Act 2006.

Potential Breach	**Remedy**
Prior to works occurring	
1: Contingency plans contained in Section 11.2 of this report have not been incorporated into the development or JEHA (Job Environment & Heritage Assessment) for the project.	The site manager must ensure that the Contingency plans are incorporated within 48 hours. All employees must be made aware of the contingency requirements.
During Development	
1: Activity has not ceased within 10m if Aboriginal cultural heritage has been located.	Activity must cease immediately within 10m of the find and the Secretary notified within 48 hours. A cultural heritage advisor must immediately be notified to assess the find.
2: The Secretary has not been notified of any Aboriginal cultural heritage	Notify the Secretary within 48 hours
3: Harm to Aboriginal cultural heritage has occurred?	Work within 10m of the Aboriginal cultural heritage must cease immediately. The sponsor must notify the Secretary with 48 hours. The sponsor must immediately notify a cultural heritage advisor to assess the level of harm and Aboriginal representatives in the following order of priority: the RAP (if one has been appointed); registered Native Title Holder; Native Title party; relevant Aboriginal persons with traditional or familiar links; relevant Aboriginal body or organisation with historical or contemporary links. The sponsor and the RAP or Aboriginal representatives must undertake the following process: • Details of the harm must be documented by the sponsor, the cultural advisor and Indigenous representatives; • A meeting must be held within 48 hours to attempt to mitigate further harm; • The understanding of the issue by both parties must be clearly stated by the relevant representatives during the course of the meeting; • The parties should reach a resolution;

	• The objective of the meeting should be to discuss and arrive at an understanding of the matter being disputed and reach a negotiated settlement of the dispute. This may include a formal protocol between the Sponsor and Aboriginal representatives ; and • The resolution to the dispute must be recorded in writing and signed off on by both parties.
4. Activity has not ceased if potential skeletal remains have been located.	Work within 10m of the Aboriginal cultural heritage must cease immediately. The sponsor must immediately action the procedure outlined in Contingency 6.

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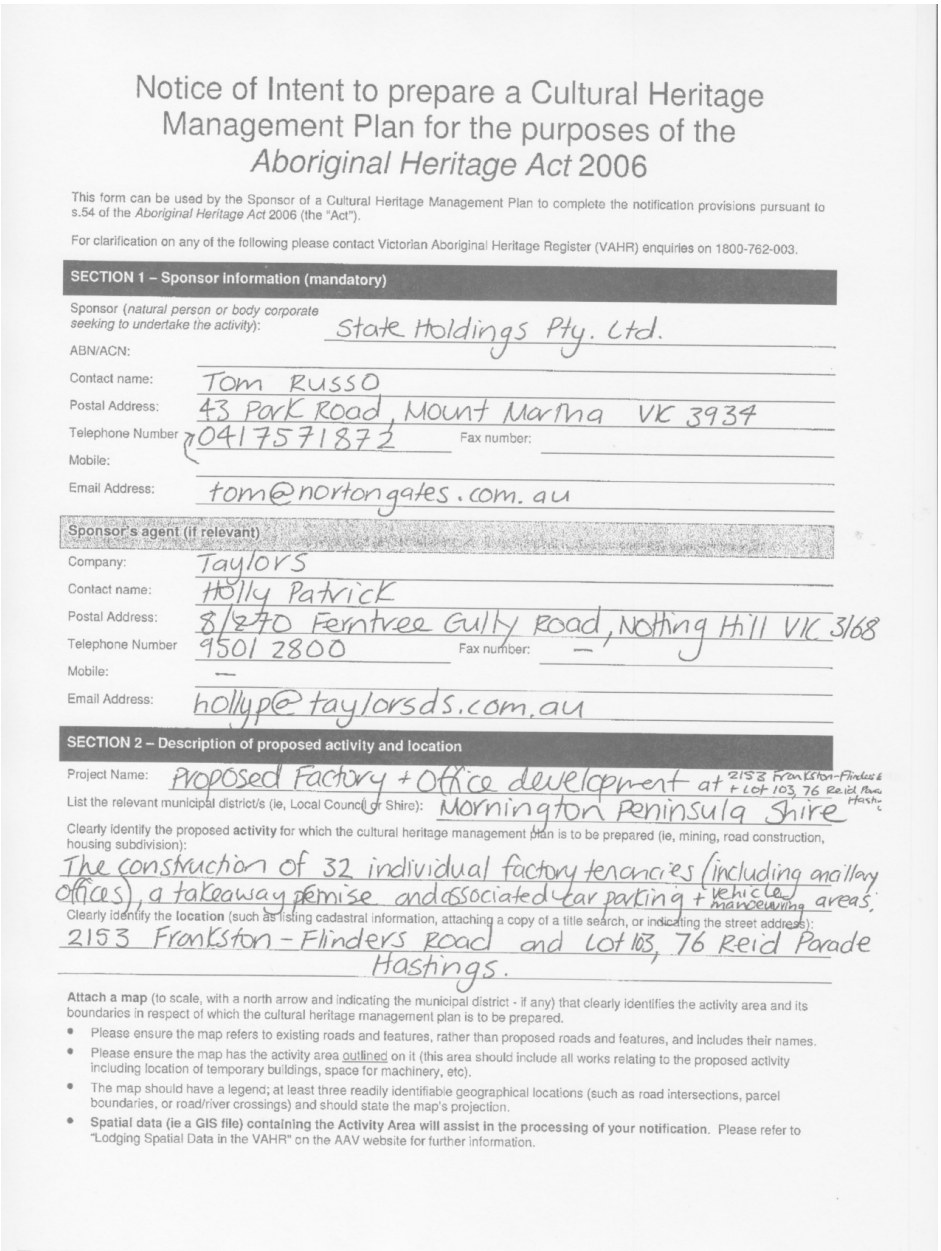
1. Appendix 1 – Notice of Intent



Notice of Intent to prepare a Cultural Heritage Management Plan for the purposes of the *Aboriginal Heritage Act* 2006

This form can be used by the Sponsor of a Cultural Heritage Management Plan to complete the notification provisions pursuant to s.54 of the *Aboriginal Heritage Act* 2006 (the "Act").

For clarification on any of the following please contact Victorian Aboriginal Heritage Register (VAHR) enquiries on 1800-762-003.

SECTION 1 – Sponsor information (mandatory)

Sponsor (*natural person or body corporate seeking to undertake the activity*): State Holdings Pty. Ltd.
ABN/ACN:
Contact name: Tom Russo
Postal Address: 43 Park Road, Mount Martha VIC 3934
Telephone Number: 0417571872 Fax number:
Mobile:
Email Address: tom@nortongates.com.au

Sponsor's agent (if relevant)

Company: Taylors
Contact name: Holly Patrick
Postal Address: 8/270 Ferntree Gully Road, Nothing Hill VIC 3168
Telephone Number: 9501 2800 Fax number: –
Mobile: –
Email Address: hollyp@taylorsds.com.au

SECTION 2 – Description of proposed activity and location

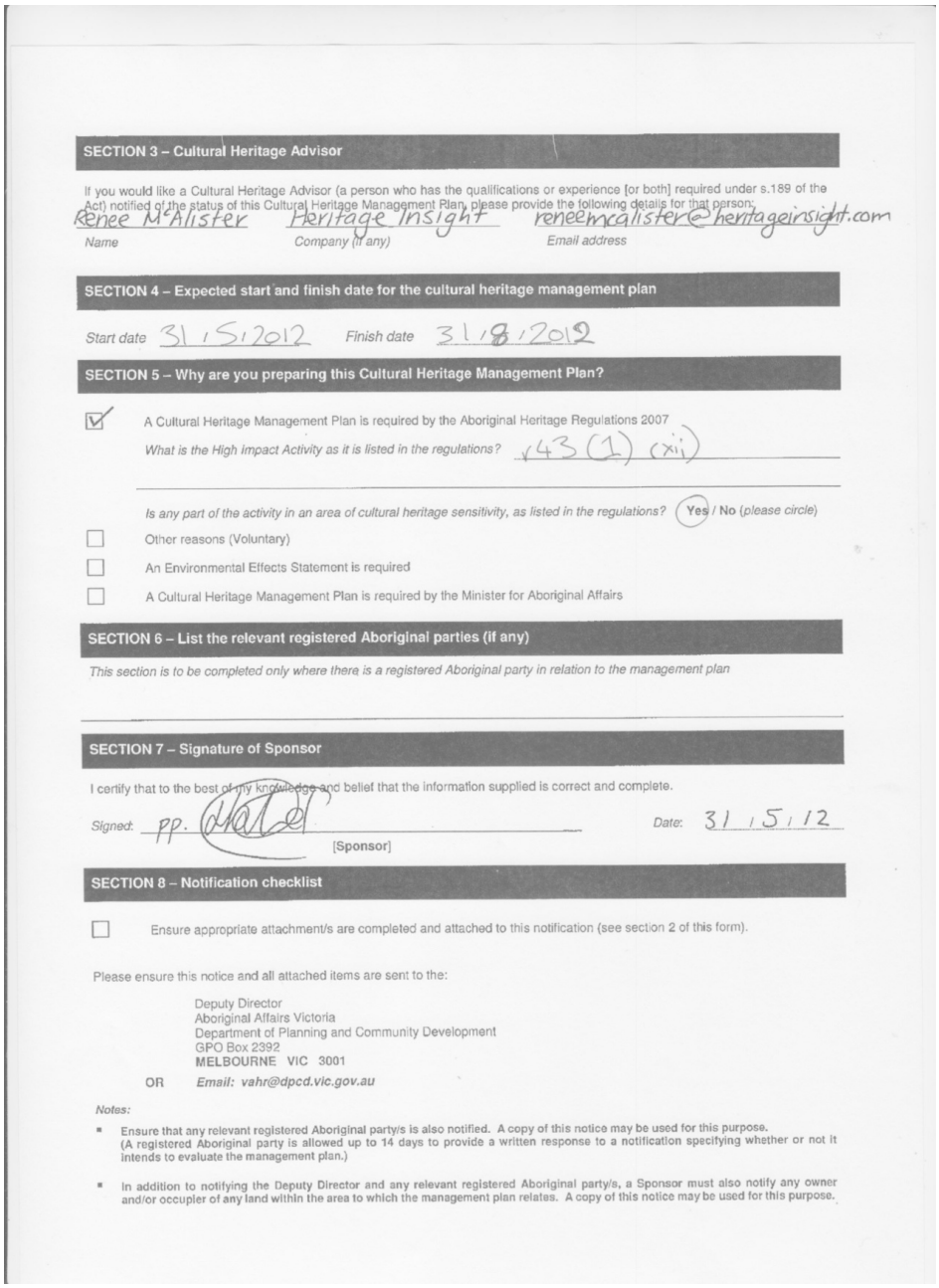
Project Name: Proposed Factory + Office development at 2153 Frankston-Flinders & Lot 103, 76 Reid Pde Hastings
List the relevant municipal district/s (ie, Local Council or Shire): Mornington Peninsula Shire

Clearly identify the proposed **activity** for which the cultural heritage management plan is to be prepared (ie, mining, road construction, housing subdivision):
The construction of 32 individual factory tenancies (including ancillary offices), a takeaway premise and associated car parking + vehicle manoeuvring areas.

Clearly identify the **location** (such as listing cadastral information, attaching a copy of a title search, or indicating the street address):
2153 Frankston - Flinders Road and Lot 103, 76 Reid Parade Hastings.

Attach a map (to scale, with a north arrow and indicating the municipal district - if any) that clearly identifies the activity area and its boundaries in respect of which the cultural heritage management plan is to be prepared.

- Please ensure the map refers to existing roads and features, rather than proposed roads and features, and includes their names.
- Please ensure the map has the activity area outlined on it (this area should include all works relating to the proposed activity including location of temporary buildings, space for machinery, etc).
- The map should have a legend; at least three readily identifiable geographical locations (such as road intersections, parcel boundaries, or road/river crossings) and should state the map's projection.
- **Spatial data (ie a GIS file) containing the Activity Area will assist in the processing of your notification.** Please refer to "Lodging Spatial Data in the VAHR" on the AAV website for further information.



SECTION 3 – Cultural Heritage Advisor

If you would like a Cultural Heritage Advisor (a person who has the qualifications or experience [or both] required under s.189 of the Act) notified of the status of this Cultural Heritage Management Plan, please provide the following details for that person:

Renee McAlister (Name) Heritage Insight (Company (if any)) reneemcalister@heritageinsight.com (Email address)

SECTION 4 – Expected start and finish date for the cultural heritage management plan

Start date 31/5/2012 Finish date 31/8/2012

SECTION 5 – Why are you preparing this Cultural Heritage Management Plan?

☑ A Cultural Heritage Management Plan is required by the Aboriginal Heritage Regulations 2007

What is the High impact Activity as it is listed in the regulations? r43 (1) (xii)

Is any part of the activity in an area of cultural heritage sensitivity, as listed in the regulations? (Yes) / No (*please circle*)

☐ Other reasons (Voluntary)

☐ An Environmental Effects Statement is required

☐ A Cultural Heritage Management Plan is required by the Minister for Aboriginal Affairs

SECTION 6 – List the relevant registered Aboriginal parties (if any)

This section is to be completed only where there is a registered Aboriginal party in relation to the management plan

SECTION 7 – Signature of Sponsor

I certify that to the best of my knowledge and belief that the information supplied is correct and complete.

Signed: pp. [signature] [Sponsor] *Date:* 31/5/12

SECTION 8 – Notification checklist

☐ Ensure appropriate attachment/s are completed and attached to this notification (see section 2 of this form).

Please ensure this notice and all attached items are sent to the:

Deputy Director
Aboriginal Affairs Victoria
Department of Planning and Community Development
GPO Box 2392
MELBOURNE VIC 3001

OR *Email: vahr@dpcd.vic.gov.au*

Notes:

- Ensure that any relevant registered Aboriginal party/s is also notified. A copy of this notice may be used for this purpose. (A registered Aboriginal party is allowed up to 14 days to provide a written response to a notification specifying whether or not it intends to evaluate the management plan.)
- In addition to notifying the Deputy Director and any relevant registered Aboriginal party/s, a Sponsor must also notify any owner and/or occupier of any land within the area to which the management plan relates. A copy of this notice may be used for this purpose.

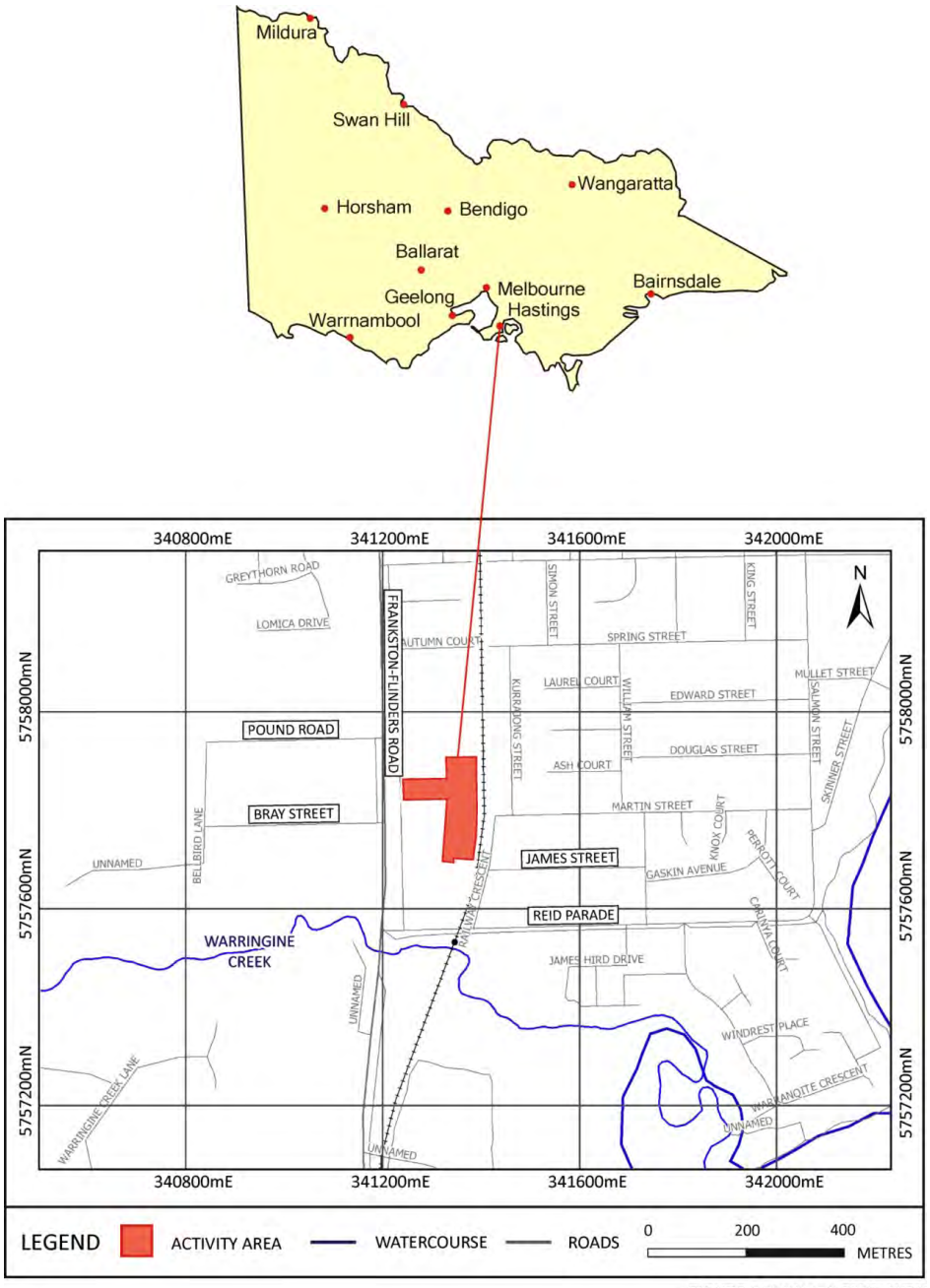


FIGURE PRODUCED BY K. AUDY

2. Appendix 2 – Artefact Catalogue

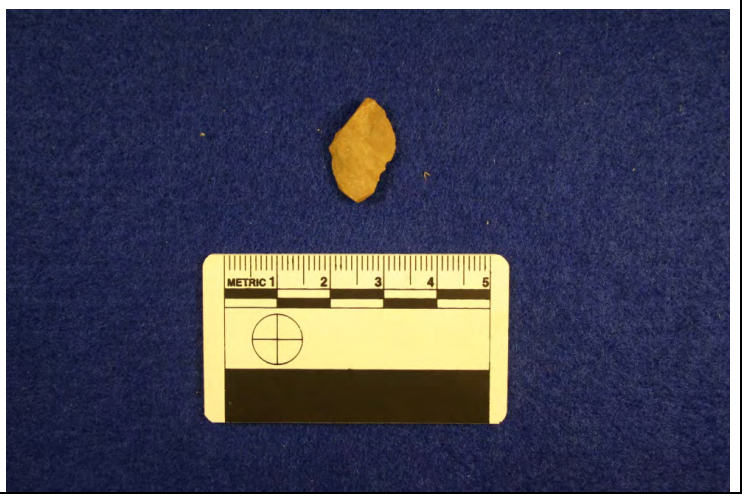
Site #	Transect #	Spit	Depth	Artefact Type	Raw Material	L (mm	W (mm	T (mm	Flake Form
2153 Frankston Flinders Road, Hastings IA 1	BHT7	1	10cm	Angular Fragment	Silcrete	14			
2154 Frankston Flinders Road, Hastings IA 2	BHT9	1	10cm	Broken Flake (Medial)	Quartzite	20	12	3	Regular

3. Appendix 3 - Site Gazetteer

VAHR 7921-1427

Name	Frankston-Flinders Road, Hastings IA 1 (VAHR 7921-1427)
GDA 95 Coordinates	341269E/5757845N
Site Extent	Single point
Cultural Materials	1 silcrete angular fragment
Aspect	Sub-surface
Condition and Integrity	Poor, disturbed, not in situ
Context	Organic moist silty clay topsoil
pH	5
Landform	Low Lying Inland Plain
Vegetation	Exotic pastoral grasses
Nearest Source of Potable Water	Permanent: Warragine Creek
Sources of Ground Disturbance	Agricultural: ploughing
Photograph of Artefact from Frankston Flinders Road, Hastings IA 1	

VAHR 7921-1428

Name	Frankston-Flinders Road, Hastings IA 2 (VAHR 7921-1428)
GDA 95 Coordinates	341313E/5757833N
Site Extent	Single point
Cultural Materials	Quartzite broken flake
Aspect	Sub-surface
Condition and Integrity	Poor, disturbed, not in situ
Context	Organic moist silty clay topsoil
pH	5
Landform	Low Lying Inland Plain
Vegetation	Exotic pastoral grasses
Nearest Source of Potable Water	Permanent: Warragine Creek
Sources of Ground Disturbance	Agricultural: ploughing
Photograph of Artefact from Frankston Flinders Road, Hastings IA 1	

4. Appendix 4: Glossary

GLOSSARY

AdzeA flake with stepped retouch along lateral margins that can be hafted for use as a tool.

AnvilA flat object on which a core was placed to flake material from. Anvils often have a small pit/groove, usually in the centre of the object, as a result of this action.

ArchaeologyThe study of cultural remains from past cultures and generations.

Artefact Scatter The material remains of past Aboriginal peoples' activities. Usually contain stone artefacts, but other material may also be present, including charcoal, animal bone, shell and ochre. An artefact scatter is usually represented by a single stone flake or a concentration of flaked stone pieces (or fragments).

AssemblageA collection of artefacts that are derived from the same site.

Backed Blade Forms part of the small tool tradition. They are characterised byunidirectional or bidirectional retouch found along a lateral margin, thought to be blunt for hafting (Holdaway& Stern 2004: 260).

Basalt Afine-grained rock occurring from lava flows.

Bifacially Flaked Flakes removed from two faces of an object such as a core.

BladeA flake that is twice as long as it is wide.

Bondi Point An asymmetrical blade with a point at one end with backing retouch. Part of the small tool tradition.

Burin A truncated flake formed by snapping or retouching along one lateral margin that then forms a platform from which small flakes are removed forming a triangular scar that acts as a working edge (Holdaway& Stern 2004: 241-243).

Burial Human Remains, normally found as concentrations of human bones or teeth, exposed by erosion or earthworks. They are sometimes associated with charcoal or ochre, although shell, animal bone and stone tools may also be present. Tend to be located in soft soils and sand, although can occur in rock shelters, caves and dead trees.

Ceramic Aterm used to identify wares made from either clay or fusible stone such as stoneware, earthenware, porcelain or terracotta (Davies & Buckley 1987: 186).

ChertA compact, fine-grained rock made of crypto-crystalline silica and can occur in a variety of colours, usually red, green or black.

CoreA specimen of rock that has undergone a process of reduction through the removal of a number of flakes and as a result they have negative flake scars. Cores can contain a single platform, have two platforms or have had flakes removed in multiple directions.

Cortex The original surface of a mineral or rock that has been subject to weathering by the elements.

Cultural Material Any material remains which are produced by human activity.

DebitageIncludes cores, flakes, and flaked pieces involved in the reduction process.

Dry Stone WallA wall formed of a number of courses of rock (usually basalt or limestone) with no bond or binding component. Walls are usually tapered, have two faces and can have hearting (packing), or plugging.

Earthenware Anon-vitreous whiteware, porous, usually used for domestic tablewares. Most earthenware is glazed and decorated, transfer printed or left plain (Davies & Buckley 1987: 186).

Earth Feature Includes mounds, rings, hearths, postholes and ovens. Mounds generally appear as raised areas of darker soil. They are commonly found in the volcanic plains of western Victoria or on higher ground near water bodies. Mounds often contain charcoal, burnt clay or stone heat retainers from cooking ovens, animal bones, shells, stone tools and, sometimes, Aboriginal burials. Earth rings are banked circles of soil, often associated with stone arrangements, which had a ceremonial purpose for Aboriginal people in the past.

Excavation A controlled means of soil disturbance (digging) allowing for detailed recording of the soil profile, features and artefacts exposed.

Flake A stone artefact that contains characteristics such as the presence of a platform, bulb of percussion and termination which reveal that the stone has been struck from a core and is the result of stone working (Holdaway& Stern 2004: 5).

Flake core A flake that has subsequently been used as a core and had other flakes removed from it.

Flaked Piece Small fragments of stone that have been removed from flakes resulting from tool maintenance or tool production (Holdaway& Stern 2004: 17). Flaked pieces do not display the characteristics evident in a complete flake.

Flint Similar to chert, with a pale cortex, conchoidal fracture, occurring usually in limestones (Roberts 1998: 65).

Footing The structural base/footprint from structures often built from bluestone, brick or wooden posts.

Geometric Microlith Part of the small tool tradition and aresymmetrical in form, pointed at both ends, can be backed along a lateral margin (Holdaway& Stern 2004: 262).

Glaze A coating put over wares fired in a kiln. Glazes can come in a variety of colours and can also be transparent.

Greenstone A metamorphic rock derived from basalt containing feldspar and quartz and is made green by chlorite and epidote. Often used for the manufacture of hand axes.

Grindstone A flat slab of rock with central depression used to grind, crush or pound seeds, ochre, or sharpen tools, etc. Grindstones are usually made on sedimentary rocks with an abrasive surface and can be used in conjunction with a muller.

Ground Edge Axes A sharpening process – flaking, pecking and polishing, usually along a single lateral margin. The axes are generally hafted with the worked edge forming the tool edge.

Ground Surface Visibility The extent of visibility of soil below the ground's natural surface.

Hammerstone A hard rock or mineral used to flake fragments of stone from a core. (Holdaway& Stern 2004: 4).

Hearth The remains of a fireplacecontaining charcoal and sometimes burnt earth, bone, stone artefacts or other organic material.

In situ An artefact or feature that remains in its original position, or where it was left.

ManuportA stone block that displays no attributes of being either a core or a flake.

Microblade Has the same characteristics of a blade but just of smaller portions (Holdaway& Stern 2004: 17).

Oven Mound Mounds are usually circular or oval in shape and are often situated close to a water source. They were used for cooking and contain a rich greasy organic mix of soil and organic material. A mound contains charcoal, burnt clay, stone tools, bones, shell and on occasion, burials (AAV Mini Poster 4).

Ochre Earth varying in colour from yellow to red, used as a pigment.

Organic Compounds formed from living organisms (plants or animals).

Platform The surface from which the flake was struck off the core – natural

flaked or abraded (Holdaway& Stern 2004: 120)

Point A flake that has two edges that form a point and has retouch along one or both lateral margins (Holdaway& Stern 2004: 16).

Porcelain Non-porous ceramic with a glass-like appearance, can be translucent, can be used for table wares or more decorative features such as ornaments.

Post-contact The periodafter contact between Aboriginal people and Europeans

Pre-contact The periodbefore contact between Aboriginal people and Europeans

Quarry An outcrop of stone or ochre that has been quarried by Aboriginal people in the past. Generally associated with a large amount of broken stone and flakes. The outcrop (cores) bear negative scars from flaking.

Quartz A mineral that commonly occurs in sedimentary, igneous and metamorphic rocks. Quartz can come in a number of forms including crystal, rose, and smoky.

Quartzite A metamorphic rock formed by the re-crystallization of quartz. Quartz is rich in sandstone and limestone (Roberts 1998: 109).

Retouch A worked edge or modification of a flake formed by removing a number of small flakes along an edge. This can be done as a form of maintenance or to produce a tool.

Rock Art Paintings created on the rock surfaces of caves and rock shelters and engravings in limestone caves. Artwork includes stencils, prints and drawings. The paint consists of ochres, clays and charcoal mixed with fats.

Scarred Tree A tree which has had a slab of bark removed, exposing the sapwood on the trunk or branch of a tree. Aboriginal people used the bark to make shelters, containers (coolamons) and canoes.

Scraper A flake with at least one edge that has continuous retouch. Scraper types include steep edged, end, side, and nose scraper (Holdaway& Stern 2004: 16).

Shell Midden A surface and/or sub-surface deposit composed of shell and sometimes stone artefacts, charcoal and bone. Middens are normally found in association with coastlines, rivers, creeks and swamps – wherever coastal, riverine or estuarine shellfish resources were available and exploited.

Silcrete A fine-grained rock derived from shale or siltstone mixed with silica.

Spit A horizontal unit of soil removed during excavation. Spits can be arbitrary (dug to a depth of 5, 10, 20, 30cm, etc.) or can be confined to a particular soil type or context. The excavation of spits allows for greater understanding, analysis and interpretation of the soil profile.

Stone Feature Includes cairns, rock wells, stone arrangements, fish traps, stone structures and grinding grooves. May be a natural feature, which was used or modified to be used by Aboriginal people in the past (rock well, stone arrangement), or a stone feature which has been deliberately constructed for a specific purpose (fish trap, stone structure, cairn), or is the result of a specific activity carried out by Aboriginal people in the past (grinding grooves).

Stoneware A vitreous (non-porous) ceramic, usually light brown in colour, used for drinking containers or used

industrially. Often glazed or unglazed (salt glaze or slip applied) (Davies & Buckley 1987: 186).

Stratification The position of sediments and rocks in sequence throughout time.

Sub-surface Testing A method of excavation that involves ground disturbing works to identify the potential for cultural material. Can take the form of hand excavation, backhoe scrapes, etc.

Survey An inspection of land either by foot or by car (windscreen survey) noting conditions on surface visibility, landforms and the presence of cultural material.

Termination The shape of the distal end of a flake (Holdaway& Stern 2004: 129).

Terracotta A low-fired clay (ceramic) usually orange to red in colour, very porous, often used for plumbing (drainage components) or garden ware.

Tool Modified flakes usually with retouch present along an edge (Holdaway & Stern 2004: 33).

Transect An excavated stretch of ground that can be of varying lengths in a straight line.

Transfer Printed A design is traced and engraved onto a copper plate on which ink and oil is then applied. The design is pressed onto tissue paper and then placed on an object and the paper removed. The object is then fired and glazed. Transfer printed ceramics come in a variety of colours and patterns and were mass produced.

Trench An area confined by excavation usually in the form of a square (eg. 2x2m) or rectangular (eg. 1.5x1m).

References

AAV Mini Posters (1-7)

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5. Appendix 5: Previous Reports Table

Reference/Study Name	Location/ Investigation Type	Landform/ Geomorphology	Disturbance and Visibility	Site Prediction Model	Results
Residential Subdivision at 22 Morrah Street, Hastings (J. Mitchell & Loizou 2009) **CHA 10915**	22 Morrah St, Hastings, Desktop & Standard CHA	Low-lying flat grassland/ Alluvial Plains	Man-made mounds of dirt, buried concrete, fencing. Ground was swampy in some parts. 40% ground surface visiblity	Low probability of Aboriginal cultural heritage due to lack of history of sites on landform.	No sites were located. Large amount of ground disturbance present. Unlikely to be any cultural heritage located.
Factory Development 24 Barclay Crescent, Hastings (Minos et al. 2008a) **CHA 10317**	24 Barclay Crescent, Hastings Desktop, Standard & Complex CHA	Low-relief with gentle slopes/ Fluvial sediments	Evidence of land clearance and dumped, imported soil was found in one part of the Activity Area. Ground surface Visibility was excellent over most of the area	No previously recorded sites in the Activity Area. Low probability of Aboriginal cultural heritage to remain in area due to land use history.	No sites were located. Large amount of ground disturbance present. Unlikely to be any cultural heritage present in the Activity Area.
Factory Redevelopment 260 Marine Parade, Hastings (Minos et al. 2008b) **CHA 10316**	260 Marine Parade, Hastings, Desktop, Standard & Complex CHA	Low-relief with gentle slopes/ Fluvial sediments	Severe ground disturbance due to heavy industrial use on the Activity Area. Low gound surface visibility	No previously recorded sites in the Activity Area. Low probability of Aboriginal cultural heritage to remain in area due to land use history, although it is close to Olivers Creek.	No sites were located. Large amount of ground disturbance present. Unlikely to be any cultural heritage present in the Activity Area.

Reference/Study Name	Location/ Investigation Type	Landform/ Geomorphology	Disturbance and Visibility	Site Prediction Model	Results
Blue Scope Recycled Water Main and Sewer Rising Main, Hastings to Somers, Victoria (Walther & Wheeler 2009) **CHA 10678**	Hastings to Somers, Victoria Desktop, Standard & Complex CHA	Gently undulating rises with broadly spaced, shallow drainage lines. Low-relief landscape/Baxter sandstone and fluvial sediments	High level of ground disturbance present from previous services being laid in trenches, land clearance, road construction and agriculture. Limited Ground Surface Visibility across most of the Activity Area	Aboriginal cultural heritage is likely to be found on elevated landforms near fresh water. Land containing transitional vegetation is more likely to contain a higher density of sites. Limited midden evidence in the region probably due to limited investigation in region and the greater distance of Activity Area from coastline	No new Aboriginal cultural heritage was located. The high degree of ground disturbance means it's unlikely that any would be located or harmed during the proposed works
94 Hodgins Road Residential Subdivision, Hastings, Victoria (Walther & Wheeler 2010) **CHA 11144**	94 Hodgins Rd, Hastings Desktop, Standard & Complex CHA	Gently undulating rises with broadly spaced, shallow drainage lines. Low-relief landscape/Baxter sandstone and fluvial sediments	Clearance of original vegetation, orcharding and bioturbation and deep furrows. Very poor ground surface visibility due to grass.	Aboriginal cultural heritage is likely to be found on elevated landforms near fresh water. Land containing transitional vegetation is more likely to contain a higher density of sites. Limited midden evidence in the region probably due to limited investigation in region and the greater distance of Activity Area from coastline	No new Aboriginal cultural heritage was located.

Reference/Study Name	Location/ Investigation Type	Landform/ Geomorphology	Disturbance and Visibility	Site Prediction Model	Results
Westernport Industrial Subdivision Hastings, Victoria (Wheeler et al. 2009) **CHA 10200**	2km north of Hastings Desktop, Standard & Complex CHA	Gently undulating rises with broadly spaced, shallow drainage lines. Low-relief landscape/Baxter sandstone and fluvial sediments	Ground disturbance from agricultural activities. Very poor ground surface visibility	Aboriginal cultural heritage is likely to be found on elevated landforms near fresh water. Land containing transitional vegetation is more likely to contain a higher density of sites. Limited midden evidence in the region probably due to limited investigation in region and the greater distance of Activity Area from coastline	Two surface artefact sites were identified during the standard assessment. Sub-surface artefact scatter identified across most of the Activity Area. Registered as one site with recommendation that two previously identified sites be incorporated into this one.

6. Appendix 6 – CV's of Cultural Heritage Advisors

Renee McAlister
Project Archaeologists

Qualifications
BA (Hons) (Archaeology) 2010, LaTrobe University
Archaeologist qualified in historic and Indigenous archaeology. She has over four years of professional archaeological experience working in South East Australia with a particular focus on Aboriginal Archaeology.
Renee has worked on a diverse range of projects including a 300km pipeline project in NSW, survey of Kinglake National Park post 2009 bushfires, survey of cultural heritage sites and coastal erosion around Port Phillip Bay, cultural heritage assessments along Kororoit Creek, Anderson Gorge, Merri Creek and Diamond Creek.

Contact Details
Renee McAlister
Project Archaeologist
Mob. 0438 002 154
Email: reneemcalister@heritageinsight.com

Examples of Recent Projects

2012 Port Phillip Aboriginal Cultural Heritage Report.
Report to DSE.

Proposed Sand Quarry Extension, Yannathan, Westernport Road, Lang Land East, Victoria: CHMP.
Report to Hanson Construction Materials.

Campbells Cove, Werribee South CHMP.
Report to Wyndham City Council.

Bourke Road Level Crossing Due Diligence Assessment.
Report to VicRoads.

Benalla Urban Growth Project Trunk Drain CHMP.
Report to Benalla City Council.

Residential Development, 84-86 Gowrie St, Glenroy, CHMP.
Report to Joseph Lo Giudice.

Proposed Footpath Construction along Back Beach Road Portsea CHMP.
Report to Mornington Peninsula Shire.

2011 378 Maroondah Highway, Healesville CHMP
Report to Rick Lanyon.

Hopkins Point Road, Warrnambool, CHMP.
Report to Morang Pty Ltd.

2/28 Goddard St, Tarneit, CHMP.
Report to Wyndham City Council.

93 Cadles Road, Carrum Downs: Residential Subdivision, CHMP.
Report to Dojcilo Draca.

65 Ives Road, Lindenow South, CHMP.
Report to Tony Flores.

Steele Creek Share Path, Keilor East CHMP.
Report to Moonee Valley City Council.

1 Harricks Road, Keilor East CHMP.
Report to Nic Cullia.

70 Hopetoun Road, Tooradin, residential subdivision, CHMP.
Report to Nobelius Land Surveyors.

2010 Harrington Road Drainage Basin, Warrnambool, CHMP.
Report to Warrnambool City Council.

Corner Koroit-Port Fairy Road and King St: Residential Subdivion CHMP.
Report to Rodger Constructions Pty Ltd.

Works along Diamond Creek Between Eltham Retirement Village and Catholic Ladies College Eltham, CHMP.
Report to Melbourne Water.

Cultural Heritage Assessment for Kororoit Creek.
Report to Melbourne Water

Cultural Heritage Assessment for Anderson Gorge Mernda.
Report to Melbourne Water.

Cultural Heritage Assessment for Wallaby Creek Catchment Area and Kinglake National Park.
Report to Parks Victoria.

Matthew Barker (Summary)

Senior Project Archaeologist
BA (Hons)

Archaeologist qualified in historic archaeology and Indigenous historic archaeology. Over five years of professional experience in the Gippsland region and some of Melbourne's outer growth areas with a range of development and research projects. Specialist experience in forensic ballistics and historical archaeology in Victoria.

QUALIFICATIONS

BA (Hons) Archaeology, LaTrobe University, VIC 2005

EXAMPLES OF RECENT PROJECTS

2005: Hernehut – Excavation of German Settler site, Penshurst, Victoria for LaTrobe University.

2005: Eastlink – Subsurface testing and excavation of a 35,000 year old Pleistocene site at Bend Road, Keysborough for Tardis Enterprises.

2005: Sale Golf Club – Subsurface testing of a proposed golf course and housing development for Tardis Enterprises.

2005: Botanic Ridge, Cranbourne – Subsurface testing of a proposed golf course and residential development for Tardis Enterprises.

2005: Eynesbury – Excavation and sub-surface testing of a proposed residential development for Tardis Enterprises.

2006: Cookes Road, Doreen – Cultural heritage survey and subsurface testing. Excavation of historic homestead site for a proposed residential development, for Tardis Enterprises.

2006: Plenty River, Mernda – Proposed rehabilitation of the Plenty River banks and pipeline construction, survey and monitoring for Tardis Enterprises.

2006: Cardinia Grove, Pakenham – Survey, sub-surface testing and monitoring of a proposed residential development for Tardis Enterprises.

2006: Desktop Cultural Heritage Study of proposed widening of the Westgate Freeway, Altona to Monash Freeway, Dandenong for Heritage Insight.

2006-2007: Colemans Road, Dandenong – Excavation and subsurface testing of a proposed industrial site, current and on-going project for Heritage Insight.

2007: Cranbourne East Local Structure Precinct Plan. Indigenous heritage survey to identify areas of potential sensitivity, within the proposed Cranbourne East multi-zone precinct.

2008: Lot 2 Hume Highway Craigieburn - Desktop, Standard and Complex Assessments approved CHMP 10001

2008: Mulcra Island CHMP - Desktop, Standard and Complex Assessments, approved CHMP 10198.

2008: 66 Back Beach Road, Portsea - Desktop, Standard and Complex Assessments, approved CHMP 10363

2008-09: Boneo Recycled Water Pipelines: North and South, and the Boneo Pipeline Extension – Desktop, Standard and Complex Assessments, approved CHMPs 10361, 10518 and 10729

2009 Beaconsfield Sewer and Transfer Main - Desktop, Standard and Complex Assessments, approved CHMP 10691

2009 222 Dundas Street Rye - Desktop, Standard and Complex Assessments, approved CHMP 10584

2009 Watsons Creek Rehabilitation - Desktop, Standard and Complex Assessments, approved CHMP 10616

2009 Evans Road Cranbourne South - Desktop, Standard and Complex Assessments, approved CHMP 10623

2009 1828 Geelong Road Ballarat - Desktop, Standard and Complex Assessments, approved CHMP 10811

2009 Winnambool Burials Conservation Management Plan

2009 Zimmer Farm Historic Ruin, Conservation Management Plan for AV Jennings

11.03-5S Distinctive areas and landscapes

30/04/2021
VC185

Objective

To recognise the importance of distinctive areas and landscapes to the people of Victoria and protect and enhance the valued attributes of identified or declared distinctive areas and landscapes.

Strategies

Recognise the unique features and special characteristics of these areas and landscapes.

Implement the strategic directions of approved Localised Planning Statements and Statements of Planning Policy.

Integrate policy development, implementation and decision-making for declared areas under Statements of Planning policy.

Recognise the important role these areas play in the state as tourist destinations.

Protect the identified key values and activities of these areas.

Enhance conservation of the environment, including the unique habitats, ecosystems and biodiversity of these areas.

Support use and development where it enhances the valued characteristics of these areas.

Avoid use and development that could undermine the long-term natural or non-urban use of land in these areas.

Protect areas that are important for food production.

Policy documents

Consider as relevant:

- *Bellarine Peninsula Localised Planning Statement* (Victorian Government, 2015)
- *Macedon Ranges Statement of Planning Policy* (Victorian Government, 2019)
- *Mornington Peninsula Localised Planning Statement* (Victorian Government, 2014)
- *Yarra Ranges Localised Planning Statement* (Victorian Government, 2017)

11.03-6S Regional and local places

31/07/2018
VC148

Objective

To facilitate integrated place-based planning.

Strategies

Integrate relevant planning considerations to provide specific direction for the planning of sites, places, neighbourhoods and towns.

Consider the distinctive characteristics and needs of regional and local places in planning for future land use and development.

15.01-1S Urban design

31/07/2018
VC148

Objective

To create urban environments that are safe, healthy, functional and enjoyable and that contribute to a sense of place and cultural identity.

Strategies

Require development to respond to its context in terms of character, cultural identity, natural features, surrounding landscape and climate.

Ensure development contributes to community and cultural life by improving the quality of living and working environments, facilitating accessibility and providing for inclusiveness.

Ensure the interface between the private and public realm protects and enhances personal safety.

Ensure development supports public realm amenity and safe access to walking and cycling environments and public transport.

Ensure that the design and location of publicly accessible private spaces, including car parking areas, forecourts and walkways, is of a high standard, creates a safe environment for users and enables easy and efficient use.

Ensure that development provides landscaping that supports the amenity, attractiveness and safety of the public realm.

Ensure that development, including signs, minimises detrimental impacts on amenity, on the natural and built environment and on the safety and efficiency of roads.

Promote good urban design along and abutting transport corridors.

Policy documents

Consider as relevant:

- *Urban Design Guidelines for Victoria* (Department of Environment, Land, Water and Planning, 2017)

15.01-1R Urban design - Metropolitan Melbourne

31/07/2018
VC148

Objective

To create a distinctive and liveable city with quality design and amenity.

Strategies

Support the creation of well-designed places that are memorable, distinctive and liveable.

Integrate place making practices into road space management.

Strengthen Melbourne's network of boulevards.

Create new boulevards in urban-growth areas and selected existing road corridors across Melbourne.

Provide spaces and facilities that encourage and support the growth and development of Melbourne's cultural precincts and creative industries.

15.01-1L Urban design - Mornington Peninsula

22/07/2021
C279morn

Strategies

Avoid signs that protrude above the height of the building, including any parapet.

Give preference to freestanding pole signs over signs attached to buildings.

Encourage signs that relate to the address, business name or type of business conducted on the premises.

Avoid animated signs such as those with flashing or moving lights.

Avoid bunting signs except for use in display yards or as a temporary sign.

Avoid the use of fluorescent or reflective paints that result in visually obtrusive effects.

33.03 INDUSTRIAL 3 ZONE

31/07/2018
VC148

Shown on the planning scheme map as **IN3Z** .

Purpose

To implement the Municipal Planning Strategy and the Planning Policy Framework.

To provide for industries and associated uses in specific areas where special consideration of the nature and impacts of industrial uses is required or to avoid inter-industry conflict.

To provide a buffer between the Industrial 1 Zone or Industrial 2 Zone and local communities, which allows for industries and associated uses compatible with the nearby community.

To allow limited retail opportunities including convenience shops, small scale supermarkets and associated shops in appropriate locations.

To ensure that uses do not affect the safety and amenity of adjacent, more sensitive land uses.

33.03-1 Table of uses

01/12/2023
VC217

Section 1 - Permit not required

Use	Condition
Automated collection point	Must meet the requirements of Clause 52.13-3 and 52.13-5. The gross floor area of all buildings must not exceed 50 square metres.
Convenience shop	
Crop raising	
Grazing animal production	
Home based business	
Informal outdoor recreation	
Mail centre	
Railway	
Service industry	Must not be a purpose listed in the table to Clause 53.10 with no threshold distance specified. The land must be at least the following distances from land (not a road) which is in an Activity Centre Zone, Capital City Zone, Commercial 1 Zone, Docklands Zone, residential zone or Rural Living Zone, land used for a hospital, an education centre or a corrective institution or land in a Public Acquisition Overlay to be acquired for a hospital, an education centre or a corrective institution: ▪ The threshold distance, for a purpose listed in the table to Clause 53.10. ▪ 30 metres, for a purpose not listed in the table to Clause 53.10. Must not: ▪ Exceed a fire protection quantity under the Dangerous Goods (Storage and Handling) Regulations 2012. ▪ Require a notification under the Occupational Health and Safety Regulations 2017. ▪ Require a licence under the Dangerous Goods (Explosives) Regulations 2011.

VICTORIA PLANNING PROVISIONS

Use	Condition
	▪ Require a licence under Dangerous Goods (HCDG) Regulations 2016.
Service station	The land must be at least 30 metres from land (not a road) which is in an Activity Centre Zone, Capital City Zone, Commercial 1 Zone, Docklands Zone, residential zone or Rural Living Zone, land used for a hospital, an education centre or a corrective institution or land in a Public Acquisition Overlay to be acquired for a hospital, an education centre or a corrective institution.
Shop (other than Adult sex product shop, Convenience shop, Restricted retail premises and Supermarket)	Must adjoin, or be on the same lot as, a supermarket when the use commences. The combined leasable floor area for all shops adjoining or on the same lot as the supermarket must not exceed 500 square metres. The site must adjoin, or be within 30 metres of, a road in a Transport Zone 2 or a Transport Zone 3.
Supermarket	The leasable floor area must not exceed 1800 square metres. The site must adjoin, or be within 30 metres of, a road in a Transport Zone 2 or a Transport Zone 3. Must be on land within an urban growth boundary and in metropolitan Melbourne.
Take away food premises	
Tramway	
Warehouse (other than Fuel depot, Mail centre or Shipping container storage)	Must not be a purpose listed in the table to Clause 53.10 with no threshold distance specified. The land must be at least the following distances from land (not a road) which is in an Activity Centre Zone, Capital City Zone, Commercial 1 Zone, Docklands Zone, residential zone or Rural Living Zone, land used for a hospital, an education centre or a corrective institution or land in a Public Acquisition Overlay to be acquired for a hospital, an education centre or a corrective institution: ▪ The threshold distance, for a purpose listed in the table to Clause 53.10. ▪ 30 metres, for a purpose not listed in the table to Clause 53.10. Must not: ▪ Exceed a fire protection quantity under the Dangerous Goods (Storage and Handling) Regulations 2012. ▪ Require a notification under the Occupational Health and Safety Regulations 2017. ▪ Require a licence under the Dangerous Goods (Explosives) Regulations 2011. ▪ Require a licence under the Dangerous Goods (HCDG) Regulations 2016. Must not adversely affect the amenity of the neighbourhood, including through the: ▪ Transport of materials, goods or commodities to or from the land.

Use	Condition
	▪ Appearance of any stored goods or materials. ▪ Emission of noise, artificial light, vibration, odour, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil
Any use listed in Clause 62.01	Must meet the requirements of Clause 62.01.

Section 2 - Permit required

Use	Condition
Adult sex product shop	Must be at least 200 metres (measured by the shortest route reasonably accessible on foot) from a residential zone or land used for a hospital, primary school or secondary school or land in a Public Acquisition Overlay to be acquired for a hospital, primary school or secondary school.
Agriculture (other than Apiculture, Crop raising, Grazing animal production, Intensive animal production, Pig farm and Poultry farm) **Caretaker's house**	
Education centre	Must not be a primary or secondary school.
Industry (other than Automated collection point and Service industry) **Leisure and recreation (other than Informal outdoor recreation, Major sports and recreation facility, and Motor racing track)**	
Office	The leasable floor area must not exceed the amount specified in the schedule to this zone.
Place of assembly (other than Carnival, Cinema based entertainment facility and Circus) **Restricted retail premises** **Retail premises (other than Shop and Take away food premises)** **Sex services premises - if the Section 1 conditions for a shop are not met** **Utility installation (other than Minor utility installation and Telecommunications facility)**	
Any other use not in Section 1 or 3	

Section 3 - Prohibited

Use
Accommodation (other than Caretaker's house)

Use
Cinema based entertainment facility
Hospital
Intensive animal production
Major sports and recreation facility
Motor racing track
Pig farm
Poultry farm
Shop (other than Adult sex product shop, Convenience shop, Restricted retail premises, Sex services premises and Supermarket) – if the Section 1 conditions are not met
Supermarket – if the section 1 conditions are not met

33.03-2
01/07/2021
VC203

Use of land

Amenity of the neighbourhood

A use must not adversely affect the amenity of the neighbourhood, including through the:

- Transport of materials, goods or commodities to or from the land.
- Appearance of any stored goods or materials.
- Emission of noise, artificial light, vibration, odour, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil.

Application requirements

An application to use land for an industry or warehouse must be accompanied by the following information, as appropriate:

- The purpose of the use and the types of processes to be utilised.
- The type and quantity of goods to be stored, processed or produced.
- How land not required for immediate use is to be maintained.
- Whether a Development Licence, Operating Licence, Permit or Registration is required from the Environment Protection Authority.
- Whether a notification under the Occupational Health and Safety Regulations 2017 is required, a licence under the *Dangerous Goods Act 1985* is required, or a fire protection quantity under the Dangerous Goods (Storage and Handling) Regulations 2012 is exceeded.
- The likely effects, if any, on the neighbourhood, including:
  - Noise levels.
  - Air-borne emissions.
  - Emissions to land or water.
  - Traffic, including the hours of delivery and despatch.
  - Light spill or glare.

Decision guidelines

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

- The Municipal Planning Strategy and the Planning Policy Framework.

- The effect that the use may have on nearby existing or proposed residential areas or other uses which are sensitive to industrial off-site effects, having regard to any comments or directions of the referral authorities.
- The effect that nearby industries may have on the proposed use.
- The drainage of the land.
- The availability of and connection to services.
- The effect of traffic to be generated on roads.
- The interim use of those parts of the land not required for the proposed use.
- The effect on nearby industries.

33.03-3 **Subdivision**
31/07/2018
VC148

Permit requirement

A permit is required to subdivide land.

VicSmart applications

Subject to Clause 71.06, an application under this clause for a development specified in Column 1 is a class of VicSmart application and must be assessed against the provision specified in Column 2.

Class of application	Information requirements and decision guidelines
Subdivide land to realign the common boundary between 2 lots where: ▪ The area of either lot is reduced by less than 15 percent. ▪ The general direction of the common boundary does not change.	Clause 59.01
Subdivide land into lots each containing an existing building or car parking space where: ▪ The buildings or car parking spaces have been constructed in accordance with the provisions of this scheme or a permit issued under this scheme. ▪ An occupancy permit or a certificate of final inspection has been issued under the Building Regulations in relation to the buildings within 5 years prior to the application for a permit for subdivision.	Clause 59.02
Subdivide land into 2 lots if: ▪ The construction of a building or the construction or carrying out of works on the land: – Has been approved under this scheme or by a permit issued under this scheme and the permit has not expired. – Has started lawfully. ▪ The subdivision does not create a vacant lot.	Clause 59.02

Exemption from notice and review

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. This exemption does not apply to land within 30 metres from land (not a road) which is in a residential zone or land used for a hospital or an education centre or land in a Public Acquisition Overlay to be acquired for a hospital or an education centre.

Decision guidelines

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

- The Municipal Planning Strategy and the Planning Policy Framework.
- Any natural or cultural values on or near the land.
- Streetscape character.
- Landscape treatment.
- Interface with non-industrial areas.

33.03-4
01/12/2023
VC217

Buildings and works

Permit requirement

A permit is required to construct a building or construct or carry out works.

This does not apply to:

- A building or works which rearrange, alter or renew plant if the area or height of the plant is not increased.
- A building or works which are used for crop raising or informal outdoor recreation.
- A rainwater tank with a capacity of more than 10,000 litres if the following requirements are met:
  - The rainwater tank is not located within the building's setback from a street (other than a lane).
  - The rainwater tank is no higher than the existing building on the site.
  - The rainwater tank is not located in an area that is provided for car parking, loading, unloading or accessway.
- A building or works which are used for grazing animal production, except for permanent or fixed feeding infrastructure for seasonal or supplementary feeding constructed within 100 metres of:
  - A waterway, wetland or designated flood plain.
  - A dwelling not in the same ownership.
  - A residential or urban growth zone.

VicSmart applications

Subject to Clause 71.06, an application under this clause for a development specified in Column 1 is a class of VicSmart application and must be assessed against the provision specified in Column 2.

Class of application	Information requirements and decision guidelines
Construct a building or construct or carry out works with an estimated cost of up to $1,000,000 where the land is not:	Clause 59.04

Class of application	Information requirements and decision guidelines
▪ Within 30 metres of land (not a road) which is in a residential zone. ▪ Used for a purpose listed in the table to Clause 53.10. ▪ Used for an Adult sex product shop.	

Application requirements

An application to construct a building or construct or carry out works must be accompanied by the following information, as appropriate:

- A plan drawn to scale which shows:
  - The boundaries and dimensions of the site.
  - Adjoining roads.
  - Relevant ground levels.
  - The layout of existing and proposed buildings and works.
  - Driveways and vehicle parking and loading areas.
  - Proposed landscape areas.
  - External storage and waste treatment areas.
  - Mechanisms to mitigate noise, odour and other adverse amenity impacts of, and on, nearby industries.
- Elevation drawings to scale which show the colour and materials of all buildings and works.
- Construction details of all drainage works, driveways and vehicle parking and loading areas.
- A landscape layout which includes the description of vegetation to be planted, the surfaces to be constructed, a site works specification and the method of preparing, draining, watering and maintaining the landscape area.

Decision guidelines

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

- The Municipal Planning Strategy and the Planning Policy Framework.
- Any natural or cultural values on or near the land.
- Streetscape character.
- Built form.
- Landscape treatment.
- Interface with non-industrial areas.
- Parking and site access.
- Loading and service areas.
- Outdoor storage.
- Lighting.
- Stormwater discharge.
- The effect on nearby industries.

- The effect of nearby industries.

Maintenance

All buildings and works must be maintained in good order and appearance to the satisfaction of the responsible authority.

33.03-5 **Signs**
31/07/2018
VC148

Sign requirements are at Clause 52.05. This zone is in Category 2.

52.05 SIGNS

31/07/2018
VC148

Purpose

To regulate the development of land for signs and associated structures.

To ensure signs are compatible with the amenity and visual appearance of an area, including the existing or desired future character.

To ensure signs do not contribute to excessive visual clutter or visual disorder.

To ensure that signs do not cause loss of amenity or adversely affect the natural or built environment or the safety, appearance or efficiency of a road.

52.05-1 Application

31/07/2018
VC148

This clause applies to the development of land for signs.

52.05-2 Requirements

31/07/2018
VC148

Sign categories

Clauses 52.05-11 to 52.05-14 specify categories of sign control. The zone provisions specify which category of sign control applies to the zone.

Each category is divided into three sections.

If a sign can be interpreted in more than one way, the most restrictive requirement must be met.

Section 1

A sign in Section 1 of the category may be constructed or put up for display without a permit, but all the conditions opposite the sign must be met. If the conditions are not met, the sign is in Section 2.

Some overlays require a permit for Section 1 signs.

Section 2

A permit is required to construct or put up for display a sign in Section 2.

This does not apply to a sign specified in Clause 52.05-10.

All the conditions opposite the sign must be met. If the conditions are not met, the sign is prohibited.

Section 3

A sign in Section 3 is prohibited and must not be constructed or put up for display.

VicSmart applications

Subject to Clause 71.06, an application under this clause for a development specified in Column 1 is a class of VicSmart application and must be assessed against the provision specified in Column 2.

Class of application	Information requirements and decision guidelines
Construct or put up for display a sign in an industrial zone, commercial zone, Special Use Zone, Comprehensive Development Zone, Docklands Zone, Priority Development Zone or Activity Centre Zone if: ▪ The sign is not within 30 metres of land (not a road) which is in a residential zone.	Clause 59.09

Class of application	Information requirements and decision guidelines
▪ The sign is not a pole sign, a sky sign, a reflective sign, internally illuminated sign, floodlit sign, electronic sign or animated sign. ▪ The display area of the sign does not exceed 10 square metres.	

52.05-3 **Referral of applications**
31/07/2018
VC148

An application to construct or put up for display an animated or electronic sign within 60 metres of a freeway or arterial road declared under the *Road Management Act 2004* must be referred in accordance with section 55 of the Act to the referral authority specified in Clause 66.03 or a schedule to that clause.

52.05-4 **Expiry of permits**
31/07/2018
VC148

A permit for a sign other than a major promotion sign expires on the date specified in the permit. If no date is specified, the expiry date is 15 years from the date of issue of the permit.

52.05-5 **Existing signs**
31/07/2018
VC148

A sign that was lawfully displayed on the approval date or that was being constructed or put up for display on that date may be displayed or continue to be displayed and may be repaired and maintained.

The content of a lawfully displayed sign may be renewed or replaced. However, a permit is required if:

- The display area is to be increased.
- The renewal or replacement would result in a different type of sign.

A sign that is reconstructed must meet the relevant sign requirements.

A major promotion sign displayed in accordance with a permit granted between 19 September 1995 and 18 September 1997 may continue to be displayed:

- until 31 December 2008; or
- where a permit application seeking permission to display the sign is lodged before 31 December 2008, until the permit application is finally determined.

52.05-6 **Application requirements**
20/01/2022
VC205

An application must be accompanied by the following information, as appropriate:

Site context

- A site context report, using a site plan, photographs or other methods to accurately describe:
  - The location of the proposed sign on the site or building and distance from property boundaries.
  - The location and size of existing signage on the site including details of any signs to be retained or removed.
  - The location and form of existing signage on abutting properties and in the locality.
  - The location of closest traffic control signs.
  - Identification of any view lines or vistas that could be affected by the proposed sign.

Sign details

- The location, dimensions, height above ground level and extent of projection of the proposed sign.
- The height, width, depth of the total sign structure including method of support and any associated structures such as safety devices and service platforms.
- Details of associated on-site works.
- Details of any form of illumination, including details of baffles and the times at which the sign would be illuminated.
- The colour, lettering style and materials of the proposed sign.
- The size of the display (total display area, including all sides of a multi-sided sign).
- The location of any logo box and proportion of display area occupied by such a logo box.
- For animated or electronic signs, a report addressing the decision guidelines at Clause 52.05-8 relating to road safety.
- Any landscaping details.

Signs with a display area of 18 square metres or more

- For a sign with a display area of 18 square metres or more:
  - A description of the existing character of the area including built form and landscapes.
  - The location of any other signs over 18 square metres, or scrolling, electronic or animated signs within 200 metres of the site.
  - Any existing identifiable advertising theme in the area.
  - Photo montages or a streetscape perspective of the proposed sign.
  - Level of illumination including:
    - Lux levels for any sign on or within 60 metres of a Transport Zone 2, Transport Zone 3, a residential zone or public land zone.
    - The dwell and change time for any non-static images.
  - The relationship to any significant or prominent views and vistas.

52.05-7 Exemption from notice and review

31/07/2018
VC148

An application for a sign 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 provided the sign:

- Is to be constructed or displayed on land specified in the schedule to this clause.
- Meets any condition specified in the schedule to this clause.

52.05-8 Decision guidelines

31/07/2018
VC148

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

All signs

- The character of the area including:
  - The sensitivity of the area in terms of the natural environment, heritage values, waterways and open space, rural landscape or residential character.

- The compatibility of the proposed sign with the existing or desired future character of the area in which it is proposed to be located.
- The cumulative impact of signs on the character of an area or route, including the need to avoid visual disorder or clutter of signs.
- The consistency with any identifiable outdoor advertising theme in the area.

- Impacts on views and vistas:
  - The potential to obscure or compromise important views from the public realm.
  - The potential to dominate the skyline.
  - The potential to impact on the quality of significant public views.
  - The potential to impede views to existing signs.
- The relationship to the streetscape, setting or landscape:
  - The proportion, scale and form of the proposed sign relative to the streetscape, setting or landscape.
  - The position of the sign, including the extent to which it protrudes above existing buildings or landscape and natural elements.
  - The ability to screen unsightly built or other elements.
  - The ability to reduce the number of signs by rationalising or simplifying signs.
  - The ability to include landscaping to reduce the visual impact of parts of the sign structure.
- The relationship to the site and building:
  - The scale and form of the sign relative to the scale, proportion and any other significant characteristics of the host site and host building.
  - The extent to which the sign displays innovation relative to the host site and host building.
  - The extent to which the sign requires the removal of vegetation or includes new landscaping.
- The impact of structures associated with the sign:
  - The extent to which associated structures integrate with the sign.
  - The potential of associated structures to impact any important or significant features of the building, site, streetscape, setting or landscape, views and vistas or area.
- The impact of any illumination:
  - The impact of glare and illumination on the safety of pedestrians and vehicles.
  - The impact of illumination on the amenity of nearby residents and the amenity of the area.
  - The potential to control illumination temporally or in terms of intensity.
- The impact of any logo box associated with the sign:
  - The extent to which the logo box forms an integral part of the sign through its position, lighting and any structures used to attach the logo box to the sign.
  - The suitability of the size of the logo box in relation to its identification purpose and the size of the sign.
- The need for identification and the opportunities for adequate identification on the site or locality.
- The impact on road safety. A sign is a safety hazard if the sign:
  - Obstructs a driver's line of sight at an intersection, curve or point of egress from an adjacent property.

- Obstructs a driver's view of a traffic control device, or is likely to create a confusing or dominating background that may reduce the clarity or effectiveness of a traffic control device.
- Could dazzle or distract drivers due to its size, design or colouring, or it being illuminated, reflective, animated or flashing.
- Is at a location where particular concentration is required, such as a high pedestrian volume intersection.
- Is likely to be mistaken for a traffic control device, because it contains red, green or yellow lighting, or has red circles, octagons, crosses, triangles or arrows.
- Requires close study from a moving or stationary vehicle in a location where the vehicle would be unprotected from passing traffic.
- Invites drivers to turn where there is fast moving traffic or the sign is so close to the turning point that there is no time to signal and turn safely.
- Is within 100 metres of a rural railway crossing.
- Has insufficient clearance from vehicles on the carriageway.
- Could mislead drivers or be mistaken as an instruction to drivers.

Major promotion signs

- The effect of the proposed major promotion sign on:
  - Significant streetscapes, buildings and skylines.
  - The visual appearance of a significant view corridor, viewline, gateway location or landmark site identified in a framework plan or local policy.
  - Residential areas and heritage places.
  - Open space and waterways.
- When determining the effect of a proposed major promotion sign, the following locational principles must be taken into account:
  - Major promotion signs are encouraged in commercial and industrial locations in a manner that complements or enhances the character of the area.
  - Major promotion signs are discouraged along forest and tourist roads, scenic routes or landscaped sections of freeways.
  - Major promotion signs are discouraged within open space reserves or corridors and around waterways.
  - Major promotion signs are discouraged where they will form a dominant visual element from residential areas, within a heritage place or where they will obstruct significant viewlines.
  - In areas with a strong built form character, major promotion signs are encouraged only where they are not a dominant element in the streetscape and except for transparent feature signs (such as neon signs), are discouraged from being erected on the roof of a building.

52.05-9 **Mandatory conditions**
31/07/2018
VC148

All signs

A permit for a sign that includes an expiry date must include a condition that provides that on expiry of the permit the sign and structures built specifically to support and illuminate it must be removed.

Major promotion signs

A permit for a major promotion sign must include conditions that specify:

- That the sign must not:
  - Dazzle or distract drivers due to its colouring.
  - Be able to be mistaken for a traffic signal because it has, for example, red circles, octagons, crosses or triangles.
  - Be able to be mistaken as an instruction to drivers.
- An expiry date that is 15 years from the date the permit is issued unless otherwise specified in this clause. This does not apply to a permit for major promotion sign for a special event or temporary building shrouding.

A permit for a major promotion sign may specify an expiry date other than 15 years, but the date must not be less than 10 years or more than 25 years from the date the permit is issued. Before deciding to alter the specified expiry date of 15 years, the responsible authority must consider, as appropriate:

- The purpose of the sign.
- The existing or desired character of the area.
- The Municipal Planning Strategy and the Planning Policy Framework in terms of the extent to which the proposed sign is consistent with any relevant policy direction and the extent to which the area may be expected to change over time.
- The extent to which the signage is physically and visually integrated into the architecture of the building.

52.05-10 Signs not requiring a permit

26/09/2023
VC246

Despite any provision in a zone, overlay, or other particular provision of this scheme, a permit is not required to construct or put up for display any of the following signs:

- A sign identifying the functions or property of a government department, public authority or municipal council, but not a promotion sign displayed at the direction of any of these bodies.
- A sign controlling traffic on a public road, railway, tramway, water or in the air, provided it is displayed at the direction of a government department, public authority or municipal council.
- A sign at a hospital that gives direction to emergency facilities.
- A sign in a road reserve that gives direction or guidance about a tourist attraction, service or facility of interest to road users. The sign must be displayed to the satisfaction of the road authority.
- A sign required by statute or regulation, provided it is strictly in accordance with the requirement.
- A sign at a railway station or bus terminal that provides information or direction for people using the station or terminal.
- A sign on a showground, on a motor racing track or on a major sports and recreation facility, provided the sign's display cannot be seen from nearby land.
- A sign with a display area not exceeding 1 square metre to each premises that provides information about a place of worship. It must not be an animated or internally illuminated sign.
- A sign inside a building that cannot generally be seen outside.

- A sign with a display area not exceeding 2 square metres concerning construction work on the land. Only one sign may be displayed, it must not be an animated or internally illuminated sign and it must be removed when the work is completed.
- A sign with a display area not exceeding 5 square metres publicising a local educational, cultural, political, religious, social or recreational event not held for commercial purposes. Only one sign may be displayed on the land, it must not be an animated or internally illuminated sign and it must not be displayed longer than 14 days after the event is held or 3 months, whichever is sooner. A sign publicising a local political event may include information about a candidate for an election.
- A sign publicising a special event on the land or in the building on which it is displayed, provided no more than 8 signs are displayed in a calendar year and the total number of days the signs are displayed does not exceed 28 in that calendar year. The sign must be removed when the event is finished.
- A sign with a display area not exceeding 2 square metres publicising the sale of goods or livestock on the land or in the building on which it is displayed, provided the land or building is not normally used for that purpose. Only one sign may be displayed, it must not be an animated or internally illuminated sign and it must not be displayed longer than 3 months without a permit.
- A sign with an display area not exceeding 10 square metres publicising the sale or letting of the property on which it is displayed. Only one sign may be displayed, it must not be an animated sign and it must not be displayed longer than 7 days after the sale date. A permit may be granted for:
  - The display area to exceed 10 square metres if the sign concerns more than 20 lots.
  - The sign to be displayed on land excised from the subdivision and transferred to the municipal council.
  - The sign to be displayed longer than 7 days after the sale date.
- A sign publicising or providing information about Victoria's container deposit scheme under the *Circular Economy (Waste and Recycling) Act* 2021. The sign must be attached to an automated collection point, or a building used for a Container deposit scheme centre. The display area for the sign must not exceed 8 square metres. The sign must not be an animated, floodlit or internally illuminated sign.

No permit is required to fly the Australian flag or to display the flag on a building, painted or otherwise represented, provided it is correctly dimensioned and coloured in accordance with the *Flags Act 1953* .

52.05-11
03/02/2022
VC199

Category 1 - Commercial areas

Minimum limitation

Purpose

To provide for identification and promotion signs and signs that add vitality and colour to commercial areas.

Section 1 - Permit not required

Sign	Condition
Bed and breakfast sign **Business identification sign** **Home based business sign**	The total display area of all signs to each premises must not exceed 8 sqm. This does not include a sign with a display area not exceeding 1.5 sqm that is below a verandah or, if no verandah, that is less than 3.7 m above pavement level.

Sign	Condition
Promotion sign	
Direction sign	None specified
Internally illuminated sign	The total display area to each premises must not exceed 1.5 sqm. No part of the sign may be above a verandah or, if no verandah, more than 3.7 m above pavement level. The sign must be more than 30 m from a residential zone or pedestrian or traffic lights.

Section 2 - Permit required

Sign	Condition
Any sign not in Section 1	None specified

Section 3 - Prohibited

Sign
Nil

52.05-12
03/02/2022
VC199

Category 2 - Office and industrial

Low limitation

Purpose

To provide for adequate identification signs and signs that are appropriate to office and industrial areas.

Section 1 - Permit not required

Sign	Condition
Bed and breakfast sign **Business identification sign** **Home based business sign** **Pole sign**	The total display area of all signs to each premises must not exceed 8 sqm. This does not include a direction sign.
Direction sign	Only one to each premises.
Internally illuminated sign	The display area must not exceed 1.5 sqm. The sign must be more than 30 m from a residential zone or pedestrian or traffic lights.

Section 2 - Permit required

Sign	Condition
Any sign not in Section 1	None specified

Section 3 - Prohibited

Sign
Nil

52.05-13 03/02/2022 VC199

Category 3 - High amenity areas

Medium limitation

Purpose

To ensure that signs in high-amenity areas are orderly, of good design and do not detract from the appearance of the building on which a sign is displayed or the surrounding area.

Section 1 - Permit not required

Sign	Condition
Bed and breakfast sign	Only one to each premises.
Home based business sign	The display area must not exceed 0.2 sqm.
Direction sign	None specified

Section 2 - Permit required

Sign	Condition
Above-verandah sign **Business identification sign**	None specified
Electronic sign	The display area must not exceed 3 sqm.
Floodlit sign	None specified
High-wall sign	Must be a business logo or street number.
Internally illuminated sign **Pole sign**	None specified
Promotion sign	The display area must not exceed 3 sqm.
Reflective sign	None specified

Section 3 - Prohibited

Sign
Any sign not in Sections 1 or 2

52.05-14 17/10/2023 VC241

Category 4 - Sensitive areas

Maximum limitation

VICTORIA PLANNING PROVISIONS

Purpose

To provide for unobtrusive signs in areas requiring strong amenity control.

Section 1 - Permit not required

Sign	Condition
Bed and breakfast sign	Only one to each premises.
Home based business sign	The display area must not exceed 0.2 sqm.
Direction sign	None specified

Section 2 - Permit required

Sign	Condition
Business identification sign	The total display area to each premises must not exceed 3 sqm. This does not apply to a Business identification sign on land used for a Freeway service centre or Service station.
Floodlit sign	Must not be a Promotion sign on land used for an Open sports ground.
Above-verandah sign **High-wall sign** **Internally illuminated sign** **Pole sign**	Must be on land used for a Freeway service centre or Service station.
Electronic sign	Must be on land used for a Freeway service centre or Service station. The display area must not exceed 3 sqm.
Promotion sign	Must be on land used for a Freeway service centre, Service station or Open sports ground. Must promote goods, services, events or matters provided, undertaken or sold on land used for a Freeway service centre or Service station.

Section 3 - Prohibited

Sign
Any sign not in Sections 1 or 2

MORNINGTON PENINSULA PLANNING SCHEME

52.06 CAR PARKING

31/07/2018
VC148

Purpose

To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework.

To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.

To support sustainable transport alternatives to the motor car.

To promote the efficient use of car parking spaces through the consolidation of car parking facilities.

To ensure that car parking does not adversely affect the amenity of the locality.

To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

52.06-1 Scope

14/12/2023
VC253

Clause 52.06 applies to:

- a new use; or
- an increase in the floor area or site area of an existing use; or
- an increase to an existing use by the measure specified in Column C of Table 1 in Clause 52.06-5 for that use.

Clause 52.06 does not apply to:

- the extension of one dwelling on a lot in the Neighbourhood Residential Zone, General Residential Zone, Residential Growth Zone, Mixed Use Zone or Township Zone; or
- the construction and use of one dwelling on a lot in the Neighbourhood Residential Zone, General Residential Zone, Residential Growth Zone, Mixed Use Zone or Township Zone unless the zone or a schedule to the zone specifies that a permit is required to construct or extend one dwelling on a lot; or
- the construction and use of a small second dwelling.

52.06-2 Provision of car parking spaces

19/04/2013
VC95

Before:

- a new use commences; or
- the floor area or site area of an existing use is increased; or
- an existing use is increased by the measure specified in Column C of Table 1 in Clause 52.06-5 for that use,

the number of car parking spaces required under Clause 52.06-5 or in a schedule to the Parking Overlay must be provided to the satisfaction of the responsible authority in one or more of the following ways:

- on the land; or
- in accordance with a permit issued under Clause 52.06-3; or
- in accordance with a financial contribution requirement specified in a schedule to the Parking Overlay.

If a schedule to the Parking Overlay specifies a maximum parking provision, the maximum provision must not be exceeded except in accordance with a permit issued under Clause 52.06-3.

52.06-3 Permit requirement

04/10/2018
VC149

A permit is required to:

- Reduce (including reduce to zero) the number of car parking spaces required under Clause 52.06-5 or in a schedule to the Parking Overlay.
- Provide some or all of the car parking spaces required under Clause 52.06-5 or in a schedule to the Parking Overlay on another site.
- Provide more than the maximum parking provision specified in a schedule to the Parking Overlay.

A permit is not required if a schedule to the Parking Overlay specifies that a permit is not required under this clause.

A permit is not required to reduce the number of car parking spaces required for a new use of land if the following requirements are met:

- The number of car parking spaces required under Clause 52.06-5 or in a schedule to the Parking Overlay for the new use is less than or equal to the number of car parking spaces required under Clause 52.06-5 or in a schedule to the Parking Overlay for the existing use of the land.
- The number of car parking spaces currently provided in connection with the existing use is not reduced after the new use commences.

A permit is not required to reduce the required number of car parking spaces for a new use of an existing building if the following requirements are met:

- The building is in the Commercial 1 Zone, Commercial 2 Zone, Commercial 3 Zone or Activity Centre Zone.
- The gross floor area of the building is not increased.
- The reduction does not exceed 10 car parking spaces.
- The building is not in a Parking Overlay with a schedule that allows a financial contribution to be paid in lieu of the provision of the required car parking spaces for the use.

VicSmart applications

Subject to Clause 71.06, an application under this clause to reduce the required number of car parking spaces by no more than 10 car parking spaces is a class of VicSmart application and must be assessed against Clause 59.10.

52.06-4 **Exemption from notice and review**
31/07/2018
VC148

An application under Clause 52.06-3 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 if:

- the application is only for a permit under Clause 52.06-3; or
- the application is also for a permit under another provision of the planning scheme and in respect of all other permissions sought, the 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.

52.06-5 **Number of car parking spaces required under Table 1**
24/01/2020
VC160

Table 1 of this clause sets out the car parking requirement that applies to a use listed in the Table.

A car parking requirement in Table 1 may be calculated as either:

- a number of car parking spaces; or
- a percentage of the total site area that must be set aside for car parking.

A car parking requirement in Table 1 is calculated by multiplying the figure in Column A or Column B (whichever applies) by the measure (for example square metres, number of patrons or number of bedrooms) in Column C.

Column A applies unless Column B applies.

Column B applies if:

- any part of the land is identified as being within the Principal Public Transport Network Area as shown on the *Principal Public Transport Network Area Maps* (State Government of Victoria, August 2018); or
- a schedule to the Parking Overlay or another provision of the planning scheme specifies that Column B applies.

Where an existing use is increased by the measure specified in Column C of Table 1 for that use, the car parking requirement only applies to the increase, provided the existing number of car parking spaces currently being provided in connection with the existing use is not reduced.

If in calculating the number of car parking spaces the result is not a whole number, the required number of car parking spaces is to be rounded down to the nearest whole number.

Where the car parking requirement specified in Table 1 is calculated as a percentage of the total site area, the area to be provided for car parking includes an accessway that directly abuts any car parking spaces, but does not include any accessway or portion of an accessway that does not directly abut any car parking spaces.

The car parking requirement specified in Table 1 includes disabled car parking spaces. The proportion of spaces to be allocated as disabled spaces must be in accordance with Australian Standard AS2890.6-2009 (disabled) and the Building Code of Australia.

The car parking requirement specified for a use listed in Table 1 does not apply if:

- a car parking requirement for the use is specified under another provision of the planning scheme; or
- a schedule to the Parking Overlay specifies the number of car parking spaces required for the use.

Table 1: Car parking requirement

Use	Rate Column A	Rate Column B	Car Parking Measure Column C
Amusement parlour	4	3.5	To each 100 sq m of net floor area
Art & craft centre	4	3.5	To each 100 sq m of net floor area
Bar	0.4		To each patron permitted
		3.5	Space to each 100 sq m of leasable floor area
Betting agency	4	3.5	To each 100 sq m of leasable floor area
Bowling green	6	6	To each rink plus 50 per cent of the relevant requirement of any ancillary use
Child care centre	0.22	0.22	To each child
Cinema based entertainment facility	0.3	0.3	To each patron permitted
Convenience restaurant	0.3		To each patron permitted
		3.5	To each 100 sq m of leasable floor area
Convenience shop if the leasable floor area exceeds 80 sq m	10		To each premises
		3.5	To each 100 sq m of leasable floor area
Display home centre	5		To each dwelling for five or fewer contiguous dwellings, plus
	2		To each additional contiguous dwelling

MORNINGTON PENINSULA PLANNING SCHEME

Use	Rate Column A	Rate Column B	Car Parking Measure Column C
		3.5	To each 100 sq m of floor area
Dwelling	1	1	To each one or two bedroom dwelling, plus
	2	2	To each three or more bedroom dwelling (with studies or studios that are separate rooms counted as a bedrooms) plus
	1	0	For visitors to every 5 dwellings for developments of 5 or more dwellings
Education centre other than listed in this table	0.4	0.3	To each student that is part of the maximum number of students on the site at any time
Food and drink premises other than listed in this table	4	3.5	To each 100 sq m of leasable floor area
Freezing and cool storage,	1.5	1	To each 100 sq m of net floor area
Fuel depot	10	10	Per cent of site area
Funeral Parlour	0.3	0.3	To each patron permitted
Gambling premises other than listed in this table	0.4		To each patron permitted
		3.5	To each 100 sq m of leasable floor area
Golf course	4	4	To each hole plus 50 per cent of the relevant requirement of any ancillary uses.
Home based business	1	0	To each employee not a resident of the dwelling
Hotel	0.4		To each patron permitted
		3.5	To each 100 sq m of leasable floor area
Industry other than listed in this table	2.9	1	To each 100 sq m of net floor area
Landscape gardening supplies	10	10	Per cent of site area
Mail centre	3.5	3	To each 100 sq m of net floor area
Manufacturing sales	4	3.5	To each 100 sq m of leasable floor area
Market	8	3.5	To each 100 sq m of site area
Materials recycling	10	10	Per cent of site area
Medical centre	5		To the first person providing health services plus
	3		To every other person providing health services
		3.5	To each 100 sq m of leasable floor area
Milk depot	10	10	Per cent of site area
Motel	1	1	To each unit, and one to each manager dwelling, plus 50 per cent of the relevant requirement of any ancillary use
Motor repairs	3	3	To each 100 sq m of net floor area plus
	1	1	for each vehicle being serviced, repaired or fitted with accessories, including vehicles waiting to be serviced, repaired, fitted with accessories or collected by owners
Office other than listed in this table	3.5	3	To each 100 sq m of net floor area
Place of assembly other than listed in this table	0.3	0.3	To each patron permitted
Postal agency	4	3.5	To each 100 sq m of leasable floor area
Primary produce sales	4	3.5	To each 100 sq m of leasable floor area

Use	Rate Column A	Rate Column B	Car Parking Measure Column C
Primary school	1	1	To each employee that is part of the maximum number of employees on the site at any time
Research and development centre	3.5	3	To each 100 sq m of net floor area
Residential aged care facility	0.3	0.3	To each lodging room
Residential village	1	1	To each one or two bedroom dwelling plus
	2	2	To each three or more bedroom dwelling (with studies or studios that are separate rooms counted as a bedrooms) plus
	1	0	For visitors to every five dwellings for developments of five or more dwellings
Retirement village	1	1	To each one or two bedroom dwelling plus
	2	2	To each three or more bedroom dwelling (with studies or studios that are separate rooms counted as a bedrooms) plus
	1	0	For visitors to every five dwellings for developments of five or more dwellings
Restaurant	0.4		To each patron permitted
		3.5	To each 100 sq m of leasable floor area
Restricted retail premises	3	2.5	To each 100 sq m of leasable floor area
Rooming house	1	1	To each four bedrooms
Saleyard	10	10	Per cent of site area
Secondary school	1.2	1.2	To each employee that is part of the maximum number of employees on the site at any time
Shop other than listed in this table	4	3.5	To each 100 sq m of leasable floor area
Squash court – other than in conjunction with a dwelling	3	3	To each court plus 50 per cent of the relevant requirement of any ancillary use
Store other than listed in this table	10	10	Per cent of site area
Supermarket	5	5	To each 100 sq m of leasable floor area
Swimming pool – other than in conjunction with a dwelling	5.6	5.6	To each 100 sq m of the site
Tennis court – other than in conjunction with a dwelling	4	4	To each court plus 50% of the requirement of any ancillary use
Trade supplies	10	10	Per cent of site area
Veterinary centre	5		To the first person providing animal health services plus
	3		To every other person providing animal health services
		3.5	To each 100 sq m of leasable floor area
Warehouse other than listed in this table	2	2	To each premises plus
	1.5	1	To each 100 sq m of net floor area
Winery	0.4		To each patron permitted
		3.5	To each 100 sq m of leasable floor area

52.06-6
16/01/2018
VC142

Number of car parking spaces required for other uses

Where a use of land is not specified in Table 1 or where a car parking requirement is not specified for the use in another provision of the planning scheme or in a schedule to the Parking Overlay, before a new use commences or the floor area or site area of an existing use is increased, car parking spaces must be provided to the satisfaction of the responsible authority. This does not apply to the use of land for a temporary portable land sales office located on the land for sale.

MORNINGTON PENINSULA PLANNING SCHEME

52.06-7
25/05/2017
VC133

Application requirements and decision guidelines for permit applications

For applications to reduce the car parking requirement

An application to reduce (including reduce to zero) the number of car parking spaces required under Clause 52.06-5 or in a schedule to the Parking Overlay must be accompanied by a Car Parking Demand Assessment.

The Car Parking Demand Assessment must assess the car parking demand likely to be generated by the proposed:

- new use; or
- increase in the floor areas or site area of the existing use; or
- increase to the existing use by the measure specified in Column C of Table 1 in Clause 52.06-5 for that use.

The Car Parking Demand Assessment must address the following matters, to the satisfaction of the responsible authority:

- The likelihood of multi-purpose trips within the locality which are likely to be combined with a trip to the land in connection with the proposed use.
- The variation of car parking demand likely to be generated by the proposed use over time.
- The short-stay and long-stay car parking demand likely to be generated by the proposed use.
- The availability of public transport in the locality of the land.
- The convenience of pedestrian and cyclist access to the land.
- The provision of bicycle parking and end of trip facilities for cyclists in the locality of the land.
- The anticipated car ownership rates of likely or proposed visitors to or occupants (residents or employees) of the land.
- Any empirical assessment or case study.

Before granting a permit to reduce the number of spaces, the responsible authority must consider the following, as appropriate:

- The Car Parking Demand Assessment.
- Any relevant local planning policy or incorporated plan.
- The availability of alternative car parking in the locality of the land, including:
  - Efficiencies gained from the consolidation of shared car parking spaces.
  - Public car parks intended to serve the land.
  - On street parking in non residential zones.
  - Streets in residential zones specifically managed for non-residential parking.
- On street parking in residential zones in the locality of the land that is intended to be for residential use.
- The practicality of providing car parking on the site, particularly for lots of less than 300 square metres.
- Any adverse economic impact a shortfall of parking may have on the economic viability of any nearby activity centre.
- The future growth and development of any nearby activity centre.
- Any car parking deficiency associated with the existing use of the land.
- Any credit that should be allowed for car parking spaces provided on common land or by a Special Charge Scheme or cash-in-lieu payment.
- Local traffic management in the locality of the land.
- The impact of fewer car parking spaces on local amenity, including pedestrian amenity and the amenity of nearby residential areas.
- The need to create safe, functional and attractive parking areas.
- Access to or provision of alternative transport modes to and from the land.
- The equity of reducing the car parking requirement having regard to any historic contributions by existing businesses.
- The character of the surrounding area and whether reducing the car parking provision would result in a quality/positive urban design outcome.
- Any other matter specified in a schedule to the Parking Overlay.
- Any other relevant consideration.

For applications to allow some or all of the required car parking spaces to be provided on another site

Before granting a permit to allow some or all of the car parking spaces required under Clause 52.06-5 or in a schedule to the Parking Overlay to be provided on another site, the responsible authority must consider the following, as appropriate:

- The proximity of the car parking on the alternate site to the subject site.
- The likelihood of the long term provision and availability of the car parking spaces.
- Whether the location of the car parking spaces is consistent with any relevant local policy or incorporated plan.
- Any other matter specified in a schedule to the Parking Overlay.

For applications to provide more than the maximum parking provision specified in a schedule to the Parking Overlay

An application to provide more than the maximum parking provision specified in a schedule to the Parking Overlay must be accompanied by a Car Parking Demand Assessment.

The Car Parking Demand Assessment must assess the car parking demand likely to be generated by the proposed use or increase to the existing use.

The Car Parking Demand Assessment must address the following matters, to the satisfaction of the responsible authority:

- The likelihood of multi-purpose trips within the locality which are likely to be combined with a trip to the land in connection with the proposed use.
- The variation of car parking demand likely to be generated by the proposed use over time.
- The short-stay and long-stay car parking demand likely to be generated by the proposed use.
- The availability of public transport in the locality of the land.
- The convenience of pedestrian and cyclist access to the land.
- The provision of bicycle parking and end of trip facilities for cyclists in the locality of the land.
- The anticipated car ownership rates of likely or proposed visitors to or occupants (residents or employees) of the land.
- Any empirical assessment or case study.

52.06-8 25/05/2017 VC133

Requirement for a car parking plan

Plans must be prepared to the satisfaction of the responsible authority before any of the following occurs:

- a new use commences; or
- the floor area or site area of an existing use is increased; or
- an existing use is increased by the measure specified in Column C of Table 1 in Clause 52.06-5 for that use.

The plans must show, as appropriate:

- All car parking spaces that are proposed to be provided (whether on the land or on other land).
- Access lanes, driveways and associated works.
- Allocation of car parking spaces to different uses or tenancies, if applicable.
- Any landscaping and water sensitive urban design treatments.
- Finished levels, if required by the responsible authority.
- Any other matter specified in a schedule to the Parking Overlay.

Plans must be provided to the responsible authority under Clause 52.06-8 wherever Clause 52.06 applies, whether or not a permit application is being made under Clause 52.06-3 or any other provision of the planning scheme.

Where an application is being made for a permit under Clause 52.06-3 or another provision of the planning scheme, the information required under Clause 52.06-8 may be included in other plans submitted with the application.

Clause 52.06-8 does not apply where no car parking spaces are proposed to be provided.

52.06-9 03/02/2022 VC199

Design standards for car parking

Plans prepared in accordance with Clause 52.06-8 must meet the design standards of Clause 52.06-9, unless the responsible authority agrees otherwise.

Design standards 1, 3, 6 and 7 do not apply to an application to construct one dwelling on a lot.

Design standard 1 – Accessways

Accessways must:

- Be at least 3 metres wide.
- Have an internal radius of at least 4 metres at changes of direction or intersection or be at least 4.2 metres wide.
- Allow vehicles parked in the last space of a dead-end accessway in public car parks to exit in a forward direction with one manoeuvre.
- Provide at least 2.1 metres headroom beneath overhead obstructions, calculated for a vehicle with a wheel base of 2.8 metres.
- If the accessway serves four or more car spaces or connects to a road in a Transport Zone 2 or Transport Zone 3, the accessway must be designed so that cars can exit the site in a forward direction.
- Provide a passing area at the entrance at least 6.1 metres wide and 7 metres long if the accessway serves ten or more car parking spaces and is either more than 50 metres long or connects to a road in a Transport Zone 2 or Transport Zone 3.
- Have a corner splay or area at least 50 per cent clear of visual obstructions extending at least 2 metres along the frontage road from the edge of an exit lane and 2.5 metres along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road. The area clear of visual obstructions may include an adjacent entry or exit lane where more than one lane is provided, or adjacent landscaped areas, provided the landscaping in those areas is less than 900mm in height.

If an accessway to four or more car parking spaces is from land in a Transport Zone 2 or Transport Zone 3, the access to the car spaces must be at least 6 metres from the road carriageway.

If entry to the car space is from a road, the width of the accessway may include the road.

Design standard 2 – Car parking spaces

Car parking spaces and accessways must have the minimum dimensions as outlined in Table 2.

Table 2: Minimum dimensions of car parking spaces and accessways

Angle of car parking spaces to access way	Accessway width	Car space width	Car space length
Parallel	3.6 m	2.3 m	6.7 m
45º	3.5 m	2.6 m	4.9 m

MORNINGTON PENINSULA PLANNING SCHEME

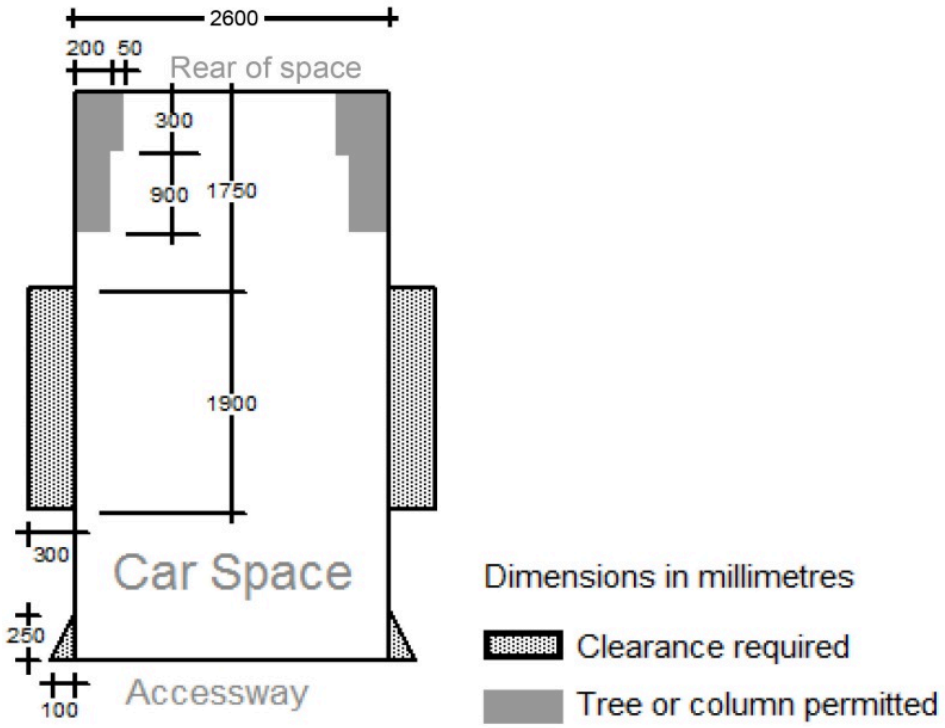
Angle of car parking spaces to access way	Accessway width	Car space width	Car space length
60°	4.9 m	2.6 m	4.9 m
90°	6.4 m	2.6 m	4.9 m
	5.8 m	2.8 m	4.9 m
	5.2 m	3.0 m	4.9 m
	4.8 m	3.2 m	4.9 m

Note *Some dimensions in Table 2 vary from those shown in the Australian Standard AS2890.1-2004 (off street). The dimensions shown in Table 2 allocate more space to aisle widths and less to marked spaces to provide improved operation and access. The dimensions in Table 2 are to be used in preference to the Australian Standard AS2890.1-2004 (off street) except for disabled spaces which must achieve Australian Standard AS2890.6-2009 (disabled).*

A wall, fence, column, tree, tree guard or any other structure that abuts a car space must not encroach into the area marked 'clearance required' on Diagram 1, other than:

- A column, tree or tree guard, which may project into a space if it is within the area marked 'tree or column permitted' on Diagram 1.
- A structure, which may project into the space if it is at least 2.1 metres above the space.

Diagram 1 Clearance to car parking spaces



Car spaces in garages or carports must be at least 6 metres long and 3.5 metres wide for a single space and 5.5 metres wide for a double space measured inside the garage or carport.

Where parking spaces are provided in tandem (one space behind the other) an additional 500 mm in length must be provided between each space.

Where two or more car parking spaces are provided for a dwelling, at least one space must be under cover.

Disabled car parking spaces must be designed in accordance with Australian Standard AS2890.6-2009 (disabled) and the Building Code of Australia. Disabled car parking spaces may encroach into an accessway width specified in Table 2 by 500mm.

Design standard 3: Gradients

Accessway grades must not be steeper than 1:10 (10 per cent) within 5 metres of the frontage to ensure safety for pedestrians and vehicles. The design must have regard to the wheelbase of the vehicle being designed for; pedestrian and vehicular traffic volumes; the nature of the car park; and the slope and configuration of the vehicle crossover at the site frontage. This does not apply to accessways serving three dwellings or less.

Ramps (except within 5 metres of the frontage) must have the maximum grades as outlined in Table 3 and be designed for vehicles travelling in a forward direction.

Table 3: Ramp gradients

Type of car park	Length of ramp	Maximum grade
Public car parks	20 metres or less	1:5 (20%)
	longer than 20 metres	1:6 (16.7%)
Private or residential car parks	20 metres or less	1:4 (25%)
	longer than 20 metres	1:5 (20%)

Where the difference in grade between two sections of ramp or floor is greater that 1:8 (12.5 per cent) for a summit grade change, or greater than 1:6.7 (15 per cent) for a sag grade change, the ramp must include a transition section of at least 2 metres to prevent vehicles scraping or bottoming.

Plans must include an assessment of grade changes of greater than 1:5.6 (18 per cent) or less than 3 metres apart for clearances, to the satisfaction of the responsible authority.

Design standard 4: Mechanical parking

Mechanical parking may be used to meet the car parking requirement provided:

- At least 25 per cent of the mechanical car parking spaces can accommodate a vehicle height of at least 1.8 metres.
- Car parking spaces that require the operation of the system are not allocated to visitors unless used in a valet parking situation.
- The design and operation is to the satisfaction of the responsible authority.

Design standard 5: Urban design

Ground level car parking, garage doors and accessways must not visually dominate public space.

Car parking within buildings (including visible portions of partly submerged basements) must be screened or obscured where possible, including through the use of occupied tenancies, landscaping, architectural treatments and artworks.

Design of car parks must take into account their use as entry points to the site.

Design of new internal streets in developments must maximise on street parking opportunities.

Design standard 6: Safety

Car parking must be well lit and clearly signed.

The design of car parks must maximise natural surveillance and pedestrian visibility from adjacent buildings.

Pedestrian access to car parking areas from the street must be convenient.

Pedestrian routes through car parking areas and building entries and other destination points must be clearly marked and separated from traffic in high activity parking areas.

Design standard 7: Landscaping

The layout of car parking areas must provide for water sensitive urban design treatment and landscaping.

Landscaping and trees must be planted to provide shade and shelter, soften the appearance of ground level car parking and aid in the clear identification of pedestrian paths.

Ground level car parking spaces must include trees planted with flush grilles. Spacing of trees must be determined having regard to the expected size of the selected species at maturity.

52.06-10
25/05/2017
VC133

Decision guidelines

Before deciding that a plan prepared under Clause 52.06-8 is satisfactory the responsible authority must consider, as appropriate:

- The role and function of nearby roads and the ease and safety with which vehicles gain access to the site.
- The ease and safety with which vehicles access and circulate within the parking area.
- The provision for pedestrian movement within and around the parking area.
- The provision of parking facilities for cyclists and disabled people.
- The protection and enhancement of the streetscape.
- The provisions of landscaping for screening and shade.
- The measures proposed to enhance the security of people using the parking area particularly at night.
- The amenity of the locality and any increased noise or disturbance to dwellings and the amenity of pedestrians.
- The workability and allocation of spaces of any mechanical parking arrangement.
- The design and construction standards proposed for paving, drainage, line marking, signage, lighting and other relevant matters.
- The type and size of vehicle likely to use the parking area.
- Whether the layout of car parking spaces and access lanes is consistent with the specific standards or an appropriate variation.
- The need for the required car parking spaces to adjoin the premises used by the occupier/s, if the land is used by more than one occupier.
- Whether the layout of car spaces and accessways are consistent with Australian Standards AS2890.1-2004 (off street) and AS2890.6-2009 (disabled).
- The relevant standards of Clauses 56.06-2, 56.06-4, 56.06-5, 56.06-7 and 56.06-8 for residential developments with accessways longer than 60 metres or serving 16 or more dwellings.

- Any other matter specified in a schedule to the Parking Overlay.

52.06-11 **Construction of car parking**
25/05/2017
VC133

Where a plan is required under Clause 52.06-8, the car parking spaces, access lanes, driveways and associated works and landscaping shown on the plan must be:

- constructed and available for use in accordance with the plan approved by the responsible authority; and
- formed to such levels and drained so that they can be used in accordance with the plan; and
- treated with an all-weather seal or some other durable surface; and
- line-marked or provided with some other adequate means of showing the car parking spaces,

before any of the following occurs:

- the new use commences; or
- the floor area or site area of the existing use is increased; or
- the existing use is increased by the measure specified in Column C of Table 1 in Clause 52.06-5 for that use.

MORNINGTON PENINSULA PLANNING SCHEME

52.29 LAND ADJACENT TO THE PRINCIPAL ROAD NETWORK

20/01/2022
VC205

Purpose

To ensure appropriate access to the Principal Road Network or land planned to form part of the Principal Road Network.

To ensure appropriate subdivision of land adjacent to Principal Road Network or land planned to form part of the Principal Road Network.

52.29-1 Application

20/01/2022
VC205

This clause applies to land adjacent to a road in the Transport Zone 2 or land in a Public Acquisition Overlay if a transport manager (other than a municipal council) is the acquiring authority, and the purpose of the acquisition is for a road.

52.29-2 Permit requirement

20/01/2022
VC205

A permit is required to:

- Create or alter access to:
  - A road in a Transport Zone 2.
  - Land in a Public Acquisition Overlay if a transport manager (other than a municipal council) is the acquiring authority and the acquisition is for the purpose of a road.
- Subdivide land adjacent to:
  - A road in a Transport Zone 2.
  - Land in a Public Acquisition Overlay if a transport manager (other than a municipal council) is the acquiring authority and the acquisition is for the purpose of a road.

52.29-3 Permit not required

14/05/2021
VC198

A permit is not required to:

- Create or alter access, or subdivide land, if carried out by or on behalf of the Head, Transport for Victoria.
- Realign a boundary.
- Subdivide an existing building, provided the building is already connected to services and no new access is required.
- Subdivide land into two lots, provided no new access is required.

52.29-4 Referral of applications

20/01/2022
VC205

An application must be referred under section 55 of the Act to the person or body specified as the referral authority in clause 66.03.

52.29-5 Exemption from notice and review

31/07/2018
VC148

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.

52.29-6 Decision guidelines

20/01/2022
VC205

Before deciding on an application, in addition to the decision guidelines in clause 65, the responsible authority must consider:

- The Municipal Planning Strategy and the Planning Policy Framework.
- The views of the relevant road authority.

- The effect of the proposal on the operation of the road and on public safety.
- Any policy made by the relevant road authority pursuant to schedule 2, clause 3 of the *Road Management Act 2004* regarding access between a controlled access road and adjacent land.

WESTERN PORT MARINA

21 SKINNER STREET
HASTINGS,VIC 3915

AMENDED PLANS
FOR HEARING

DRAWING No.	DRAWING TITLE	REVISON	DATE
TP - 00	COVER SHEET & DRAWING SCHEDULE	CC-D	2025.02.21
TP - 01	SITE PLAN	CC-D	2025.02.21
TP - 02	PROPOSED PLAN & ELEVATIONS - BOAT STORAGE 1A	CC-D	2025.02.21
TP - 03	PROPOSED PLAN & ELEVATIONS - BOAT STORAGE 1B	CC-D	2025.02.21
TP - 04	PROPOSED PLAN & ELEVATIONS - BOAT STORAGE 3	CC-D	2025.02.21
TP - 05	3D VISUALIZATION - EXISTING LANDSCAPE CONDITIONS WITH PROPOSED BOAT STORAGE	CC-D	2025.02.21
TP - 06	3D VISUALIZATION - INDICATIVE PROPOSED LANDSCAPE CONDITIONS WITH PROPOSED BOAT STORAGE	CC-D	2025.02.21

DATE	REV.	ISSUE	DATE	REV.	ISSUE

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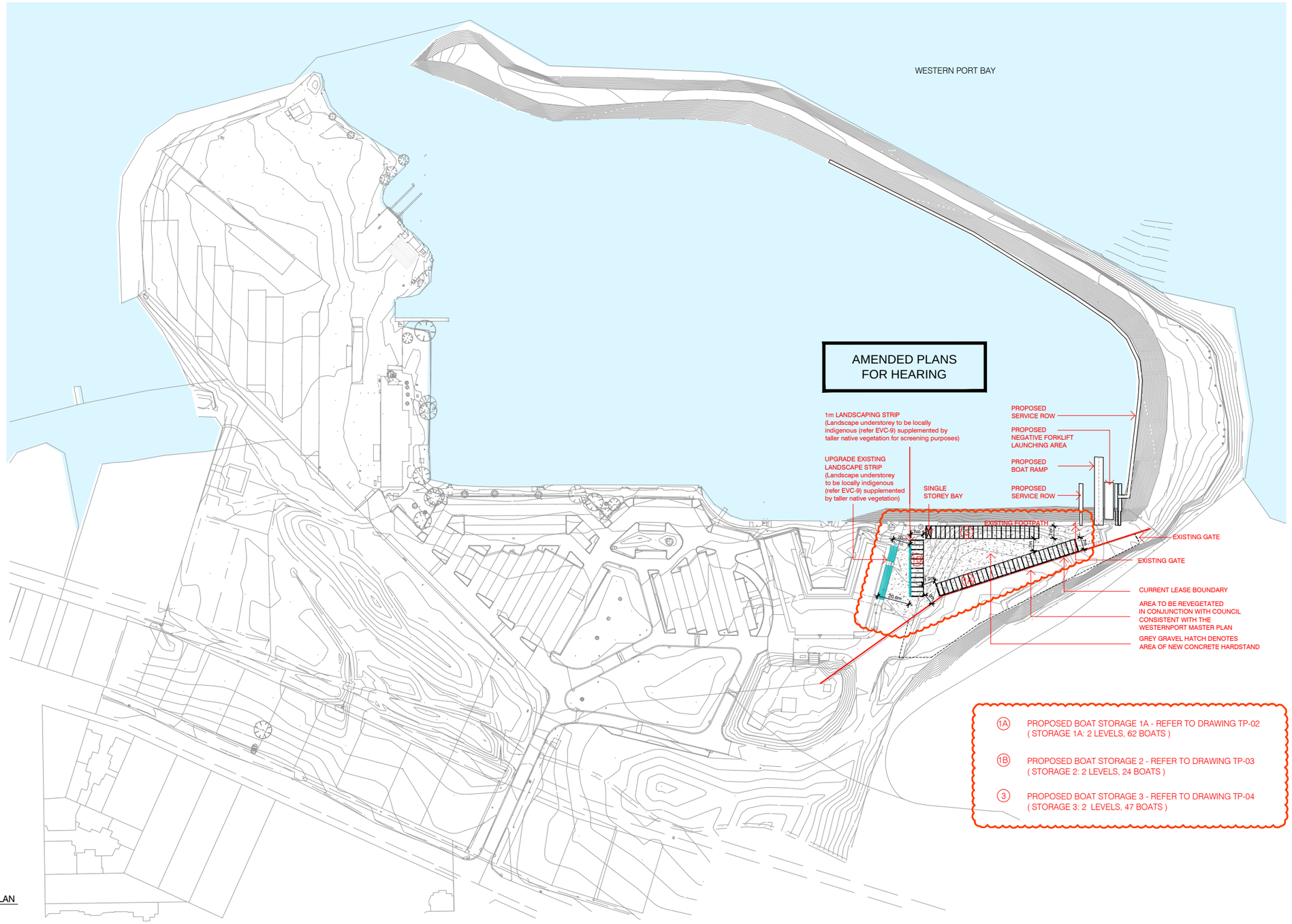
PROJECT
WESTERN PORT MARINA
21 Skinner Street
Hastings,VIC 3915

DRAWING
COVER SHEET &
DRAWING SCHEDULE

DATE	DRAWN	SCALE	JOB NO.	DWG NO.	REV.
21 FEB 2025	SS	NTS	23717	TP - 00	CC-D



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PROJECT
WESTERN PORT MARINA
21 Skinner Street
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DRAWING
SITE PLAN

DATE	DRAWN	SCALE	JOB NO.	DWG NO.	REV
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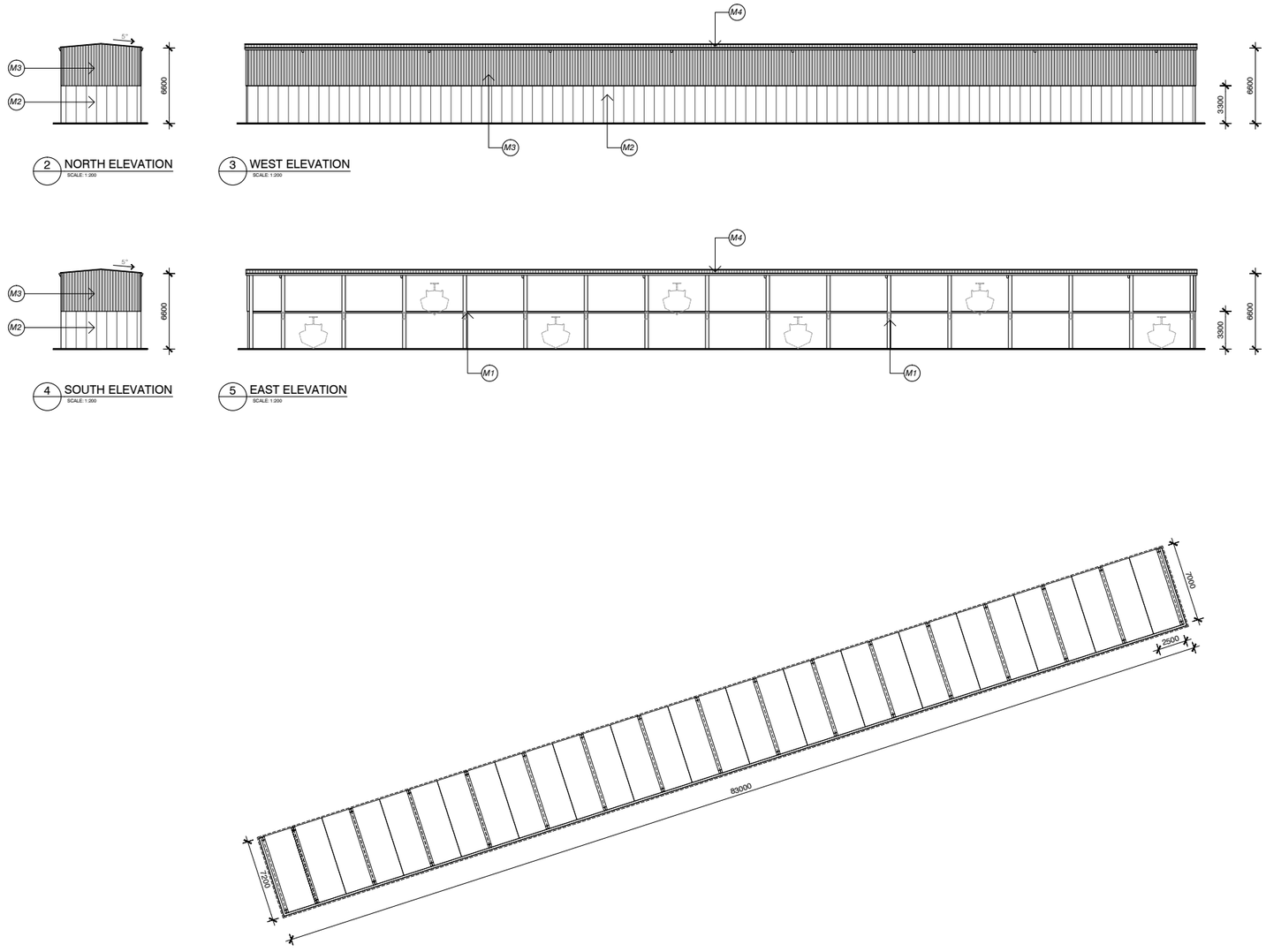

2 NORTH ELEVATION
SCALE: 1:200

3 WEST ELEVATION
SCALE: 1:200

4 SOUTH ELEVATION
SCALE: 1:200

5 EAST ELEVATION
SCALE: 1:200

1 PROPOSED PLAN - BOAT STORAGE 1A
SCALE: 1:200

EXTERNAL MATERIALS LEGEND

code	material/colour	image
M1	METAL FINISH / CHARCOAL	
M2	PAINTED FIBER CEMENT CLADDING / MONUMENT GREY	
M3	TIMBER CLADDING / NATURAL	
M4	METAL TRAY ROOFING / GREY	

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PROJECT
WESTERN PORT MARINA
21 Skinner Street
Hastings,VIC 3915

DRAWING
PROPOSED PLAN & ELEVATIONS - BOAT STORAGE 1A

DATE	DRAWN	SCALE	JOB NO.	DWG NO.	REV.
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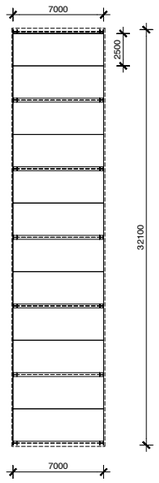
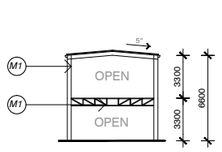


1 PROPOSED PLAN - BOAT STORAGE 1B
SCALE 1:200



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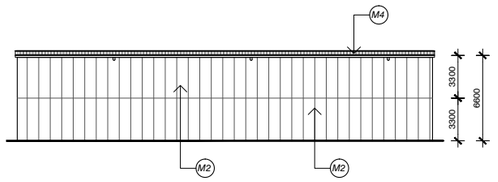
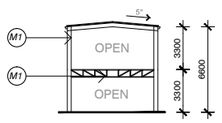
SCALE 1:200



3 NORTH ELEVATION
SCALE 1:200



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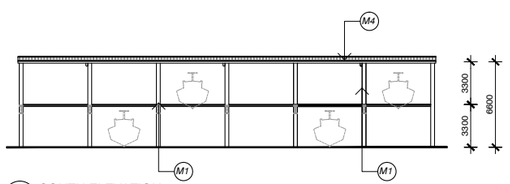

5 SOUTH ELEVATION
SCALE 1:200

EXTERNAL MATERIALS LEGEND

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PROJECT
WESTERN PORT MARINA
21 Skinner Street
Hastings,VIC 3915

DRAWING
PROPOSED PLAN & ELEVATIONS
- BOAT STORAGE 1B

DATE	DRAWN	SCALE	JOB NO.	DWG NO.	REV
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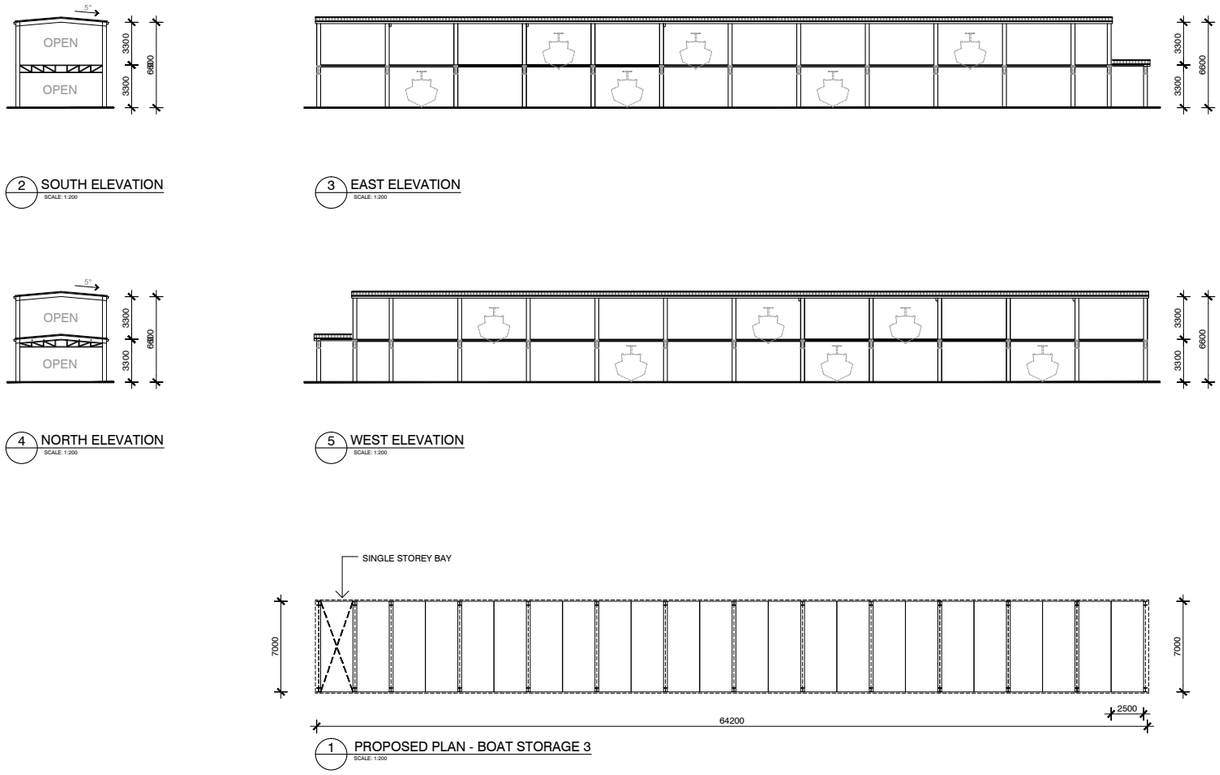

EXTERNAL MATERIALS LEGEND

code	material/colour	image
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M2	PAINTED FIBER CEMENT CLADDING / MONUMENT GREY	
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DATE	REV	ISSUE

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PROJECT
WESTERN PORT MARINA
21 Skinner Street
Hastings,VIC 3915

DRAWING
PROPOSED PLAN & ELEVATIONS - BOAT STORAGE 3

DATE	DRAWN	SCALE	JOB NO.	DWG NO.	REV.
21 FEB 2025	SS	1:200 @A1	23717	TP - 04	CC-D

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PROJECT
WESTERN PORT MARINA
21 Skinner Street
Hastings,VIC 3915

DRAWING
3D VISUALIZATION -
EXISTING LANDSCAPE CONDITIONS
WITH PROPOSED BOAT STORAGE

DATE	DRAWN	SCALE	JOB NO.	DWG NO.	REV.
21 FEB 2025		NTS	23717	TP - 05	CC-D

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PROJECT
WESTERN PORT MARINA
21 Skinner Street
Hastings,VIC 3915

DATE 21 FEB 2025 | DRAWN SS | SCALE NTS

DRAWING
3D VISUALIZATION - INDICATIVE PROPOSED LANDSCAPE CONDITIONS WITH PROPOSED BOAT STORAGE

JOB NO. 23717 | DWG NO. TP - 06 REV. CC-D

Tract

Summary of Changes

Project Westernport Marina
21 Skinner Street, Hastings
315.0318

Date 21 February 2025

The following table summarises the list of changes for the Amended Plans for Hearing (Rev CC-D) prepared by Search Studio and dated 21 February 2025, when compared to the latest RFI Response application plans (no revision number) prepared by Search Studio and dated 24 October 2023.
The changes are clouded in red on the Rev CC-D plans.

Change	Reason and description of change	Plan references
Reorientation and reconfiguration of all sheds	- Reduction in length of formerly proposed Shed 2 and Shed 3 to reduce visual bulk. - Reorientation of Shed 2 to increase separation distance from the existing building adjacent to the north of the Site in order to allow for an upgraded landscape strip and additional landscape screening to assist with softening the visual bulk along this northern interface. - Consolidation of formerly proposed Sheds 1A and 1B into one shed (Shed 1A) to accommodate reorientation of sheds.	All plans (TP-01 to TP-05).
Reduction in height of Shed 1B and Shed 3	- Reduction in height of Shed 1B and Shed 3 from 3 levels to 2 levels to reduce visual bulk and impact from public realm. - Reduction in height of the northernmost boat bay of Shed 3 to 1 level to reduce visual bulk and impact, particularly when viewed from existing buildings in the Marina adjacent to the north of the Site.	TP-01 – Site Plan, TP-03 – Boat Storage 1B, TP-04 – Boat Storage 3.
Material change	- Change in material to the northern elevation of Shed 1B from open boat bays to an enclosed elevation with painted fibre cement cladding in 'Monument Grey' across both levels. - This change seeks to reduce the visual clutter of the boat storage sheds when viewed from the adjacent building to the north. The dark muted tones are subdued to integrate well into the marina landscape.	TP-03 – Boat Storage 1B

Tract Consultants Pty Ltd
ACN: 055 213 842

ATF Tract Consultants Unit Trust
ABN: 75 423 048 489

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Wurundjeri Country
Level 6, 6 Riverside Quay, Southbank VIC 3006

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4.4 Planning Permit Application P23/1571 - 21 Skinner Street Hastings - Buildings and works associated with the Western Port Marina

Prepared By	Charlotte McGillivray, Senior Planner
Authorised By	Director - Planning & Environment
Document ID	A13036243
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Attachment(s)	1. Officer Assessment ⇨ 2. Development Plans ⇨ 3. Submitted Planning Report ⇨ 4. Submissions (confidential) ⇨ 5. DEECA Consent ⇨ 6. Melbourne Water Consent ⇨ 7. Planning Provisions ⇨ 8. Site Context ⇨ 9. Renders and Conceptual Landscaping ⇨

EXECUTIVE SUMMARY

The purpose of this report is to seek Council's decision regarding planning permit application P23/1571 for the development of buildings and works associated with the Westernport Marina at 21 Skinner Street Hastings. The application has been called in by Councillor Dixon for a decision by the Council.

The proposed development includes:

- Four boat storage buildings with space for 200 boats in a stacked configuration (two x two storey and two x three storey buildings)
- A new boat ramp and forklift launching area, to allow for secondary access to the marina and bay
- Construction of service rows.

All works, including access, are proposed within the existing lease area and boundary of the marina, which is reclaimed land.

The application was advertised and received eight objections, which can be summarised as:

- Change to, or loss of views,

- Environmental impacts,
- Amenity impacts (noise/light); and
- Perceived conflicts of interest.

The are numerous State and Local Government policies, strategies, guidelines and plans that are relevant to the consideration of the application including the Marine and Coastal Policy 2020, Marine and Coastal Strategy 2022, Siting and Design Guidelines for Structures on the Victorian Coast 2020, Victorian Recreational Boating Strategy 2021–2030, Hastings South Coastal Management Plan 2015 and Hastings Foreshore Master Plan 2023. Within these guiding documents there can be at times competing objectives or outcomes sought. However, in the context of the site, the existing marina use and this application, it is considered that the majority of provisions provide support for the application.

The proposal is considered acceptable having regard to the relevant provisions of the Planning Scheme and the *Planning and Environment Act 1987.* It is recommended that Council supports the application and resolves to issue a Notice of Decision to Grant a Permit, subject to the conditions contained within this report.

RECOMMENDATION

That Council, being a Responsible Authority under the Mornington Peninsula Planning Scheme and the *Planning and Environment Act, 1987*, having considered all submissions received to date and all matters required under section 60 of the *Planning and Environment Act 1987*, hereby resolves that Planning Permit Application P23/1571 for the development of buildings and works associated with a marina, be supported and that a Notice of Decision to Grant a Permit be issued subject to the following conditions:

COUNCIL CONDITIONS

Amended Plans

1. **Before the developments starts, amended plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and will then form part of the permit. The plans must be drawn to scale with dimensions. The plans must be generally in accordance with the plans submitted with the application but modified to show:**

    A. **Vehicle access to the boat storage area to the satisfaction of the Responsible Authority.**

    B. **A notation that there will no vehicle, boat, or trailer parking outside the lease and/or licence area to the satisfaction of the Responsible Authority.**

    C. **Reinforced concrete surfacing to the south of the boat ramp to enable vehicle movements within the lease and/or licence area to the satisfaction of the Responsible Authority.**

    D. **The extent of reinforced concrete surfacing to align on all plans.**

Approved Development not Altered

2. **The approved development as shown on the endorsed plans must not be altered without the prior written consent of the Responsible Authority (unless otherwise specified by a condition of this permit, consent is not required for any buildings**

or works which do not require a planning permit under the Mornington Peninsula Planning Scheme).

Colours/Materials

3. The materials and colours of the exterior finish of the buildings must be in accordance with the endorsed plans unless with the further permission of the Responsible Authority.

Disturbed Surfaces

4. All disturbed surfaces on the land resulting from the development must be revegetated and stabilised to the satisfaction of the Responsible Authority.

DEPARTMENT OF ENERGY, ENVIRONMENT AND CLIMATE ACTION CONDITIONS

5. The works are to be carried out generally in accordance with:

A. *The Marine and Coastal Act* consent application titled 'WESTERN PORT MARINA' dated 2 June 2023, prepared by Tract Consultants.

B. Amended plans submitted via email by Tract Consultants on 25 October 2023, prepared by Search Studio CO Pty Ltd, dated 24 October 2023, drawing numbers TP-01, TP-02, TP-03, TP-04.

C. Plans submitted in response to the further information request titled 'PLAN – BOAT RAMP' and 'SECTION – BOAT RAMP' prepared by Search Studio CO Pty Ltd, dated 19 December 2023 and 14 December 2023, respectively.

6. Any modification to the works proposed will require further approval by the Regional Director, Port Phillip Region, Department of Energy, Environment and Climate Action (DEECA).

7. Prior to works commencing, a Construction Environmental Management Plan (CEMP) must be prepared to the satisfaction of DEECA. The CEMP must include:

A. A detailed construction methodology for the proposed boat ramp and negative launching area, with reference to excavation, fill deposition and pile installation requirements.

B. Where any construction wastes, equipment, machinery and/or earth is to be stored/stockpiled during construction.

C. Measures to control erosion and sediment and sediment laden water runoff including the design details of structures.

D. The location of trenching works, boring, and pits associated with the provision of services.

8. Access and egress to the boat storage area and boat ramp/launching area is only permitted via the lease and/or licence area.

9. Indigenous vegetation must not be damaged or removed as a result of the works.

10. Any clearing or construction activity associated with the works, should be carried out in accordance with the with EPA Publication No. 275 Construction Techniques for Sediment Pollution Control (May 1991).

11. The construction site must be managed in accordance with EPA Publication 1834: Civil construction, building and demolition guide (26 November 2020).

12. Construction equipment, building materials, refuse and site run-off must be contained and controlled and not permitted to impact on the marina or enter Western Port Bay.

13. All works must be completed, the site reinstated, and the works maintained to the satisfaction of DEECA.

14. This consent under the *Marine and Coastal Act 2018* will expire if the works are not completed within two years of the date of issue, unless an extension of time is applied for and granted by the Regional Director, Port Phillip Region, DEECA.

MELBOURNE WATER CONDITION

15. Sediment and contaminant laden runoff during construction must be contained. Such runoff is not permitted to enter the bay. Prior to commencement of construction, a Site Environmental Management Plan (SEMP) must be produced and adopted on site.

COUNCIL CONDITIONS

Landscaping and Coastal Land

16. Within 12 months of the issue of the permit the following must be completed:

    A. Any unauthorised infrastructure within the Council-managed coastal Crown land must be removed, including but not limited to; gates, fences, solar panels and hard stand areas (gravel and asphalt).

    B. All landscaping works shown on the endorsed plans, including landscaping within the coastal Crown land, carried out and completed to the satisfaction of the Responsible Authority.

    Once the fencing and landscaping is completed and within 12 months of the issue of the permit, the owner must arrange for Council's Planning Compliance Officer and Coastal Planner to attend the site and inspect the works and revegetation.

17. If there is any dead or dying vegetation within 12 months of its planting, it must be replanted with the same (or similar) species by the permit holder, to the satisfaction of the Responsible Authority.

Engineering

18. After the endorsement of Condition 1 plans and before any works associated with the development starts, a signed and completed 'Checklist for Development Engineering Plan Approval' along with engineering plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. The plans must be drawn to scale with dimensions and shall be emailed to devengadmin@mornpen.vic.gov.au in pdf format.

    The plans must show:

    A. All areas of the development being drained by means of an underground drainage system with discharge to the Western Port Marina.

B. Reinforced concrete surfacing to the boat storage area and boat ramp access and turning area.

C. A drainage system on the site being designed to ensure storm water runoff exiting the new development meets the current best practice performance objectives for stormwater quality, as contained in the Urban Stormwater Best Practice Environmental Management Guidelines (Victorian Stormwater Committee, 1999).

19. Before the approval of engineering plans, drainage computations and documentation are required for:

A. The proposed drainage system.

B. The consideration of any drainage catchment external to the development that may drain to the proposed drainage system.

C. A Model for Urban Stormwater Improvement Conceptualisation (MUSIC) Report.

20. Prior to the approval of engineering plans, the applicant must:

A. Demonstrate to the Responsible Authority that water quality features will be implemented in accordance with clause 53.18 of the planning scheme.

Drainage Works

21. Before the initial occupation of the new development, all drainage works associated with the new development must be constructed in accordance with approved engineering plans, and to the satisfaction of the Responsible Authority.

22. The owner must operate and maintain the drainage works including any on-site stormwater treatment system at their own cost and must allow the system to be inspected by an authorised officer of the Responsible Authority from time to time. The owner must not modify any on-site stormwater treatment system without prior written approval from the Responsible Authority.

Vehicle Access

23. Before the initial occupation of the new development, all driveways and vehicle turning areas as shown on the endorsed plans must be constructed in accordance with approved engineering plans, surfaced with reinforced concrete, and drained to the satisfaction of the Responsible Authority.

Expiry

24. This permit will expire if the development is not completed within four years of the date of this permit.

In accordance with Section 69 of the *Planning and Environment Act 1987*, an application may be submitted to the Responsible Authority for an extension of the periods referred to in this condition.

Part B

That Council resolves that Attachment 4 to this report be retained as a confidential item pursuant to section 3 (1) (f) of the *Local Government Act 2020* as it contains

personal information which if released would result in the unreasonable disclosure of information about any person or their personal affairs.

COUNCIL & WELLBEING PLAN

This aligns with the Council and Wellbeing Plan, in particular:

Theme 1: A healthy natural environment and well-planned townships.

- Strategic Objective 1.2: A healthy ecosystem, in which our coastline, bushland, wildlife and green wedge is resilient to the climate emergency and development.
- Strategic Objective 1.3: A sustainable built environment that respects the natural environment and protects the community from the impacts of the climate emergency.
- Strategic Objective 1.4: An accessible built environment that supports diverse, current and future community needs.

Theme 2: A robust, innovative and diverse economy.

- Strategic Objective 2.3: A thriving entrepreneurial economy, with a vibrant tourism sector, that provides accessible employment to our diverse community

GOVERNANCE PRINCIPLES

Section 9 of the *Local Government Act 2020* states that a Council must in the performance of its role give effect to the overarching governance principles. This report aligns with principles A, B, F, H and I which are:

A. Council decisions are to be made and actions taken in accordance with the relevant law.

B. Priority is to be given to achieving the best outcomes for the municipal community, including future generations.

F. Collaboration with other Councils and Governments and statutory bodies is to be sought.

H. Regional, state and national plans and policies are to be taken into account in strategic planning and decision making.

I. The transparency of Council decisions, actions and information is to be ensured.

DISCUSSION

Purpose

The purpose of this report is to provide a summary of:

- The relevant background of the site
- The proposal
- The key issues
- Submissions and officer response

- The assessment against the relevant provisions of the *Planning and Environment Act 1987 (the Act)* and Mornington Peninsula Planning Scheme**.**

For a detailed assessment of all the relevant matters please see Attachment 1 – Officer Assessment.

The key planning considerations are summarised in the below table:

Proposal	Buildings and Works Associated with an existing Marina
Zoning and Overlays	Zone: Public Park and Recreation Zone (PPRZ) Overlays: Land Subject to Inundation Overlay Schedule 1 (LSIO1)
Permit Triggers	Clause 36.02-2 (PPRZ): A permit is required to construct a building or construct or carry out works. Clause 44.04-2 (LSIO): A permit is required to construct a building or to construct or carry out works. Schedule 1 contains a relevant exemption for the two open sided buildings as they are located within a Public Land Zone.
Advertising	The application was notified by sending written notice to adjoining properties and erecting a sign on site for 14 days.
Submissions	Eight objections have been received to date.
Consultation	No Planning Application Conference (PAC) was held.
Key Issues	• Is the proposal acceptable having regard to relevant policy regarding use and development of marine and coastal Crown land? • Is the proposal acceptable having regard to impact on views? • Is the environmental impact acceptable? • Consideration of the matters raised in the objections.
Recommendation	Notice of Decision to Grant a Permit, subject to conditions.

BACKGROUND

Subject Site and Surrounds

Westernport Marina is roughly 16 hectares in size, and is located on Western Port Bay, approximately 450 metres to the south-east of the town centre of Hastings. The site is formally described as Crown Allotment 17 Section D Township of Hastings. The site is also part of the designated 60,000 hectare Western Port Ramsar Wetland area however, the Marina is constructed on reclaimed land as can be seen in Figures 1 and 2 below.

Primary vehicle access to the site is via Mullet Street. The site is used as a marina for recreational boating with associated facilities. The marina is primarily for public use, with the facilities and amenities available to the general public.

The site contains:

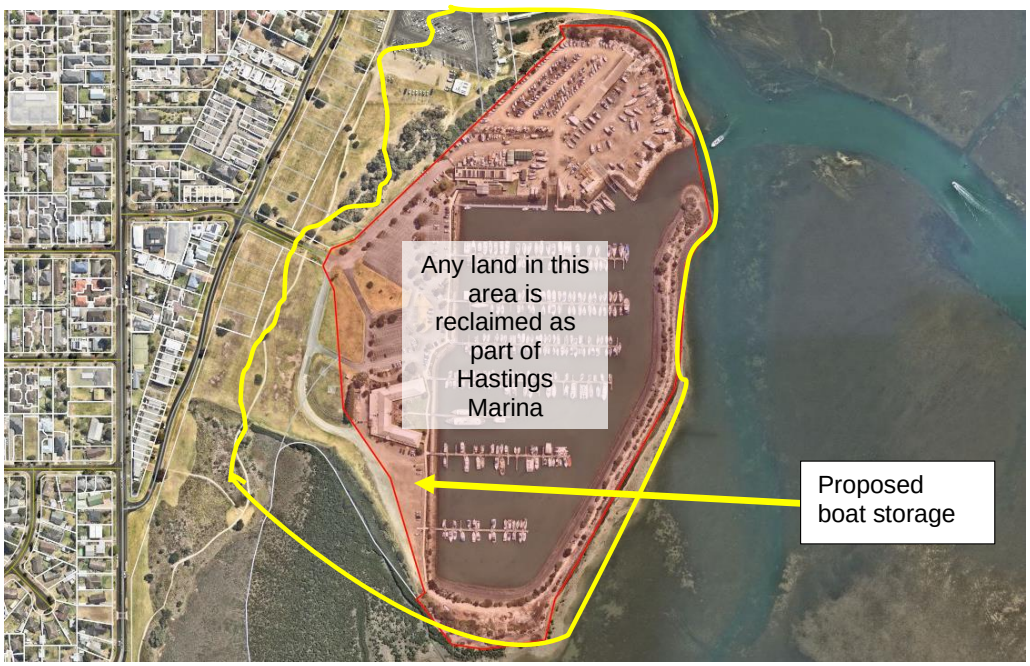
- Car parking with approximately 400 parking spaces.
- Dry boat storage to the north of the site, which compromises both outdoor and undercover storage. Currently the site has 160 places for outside dry berthing and 23 undercover storage places.
- Two boat repair business, a chandlery, a café, a restaurant, the Dolphin Research Centre and the Coastguard.
- A wet berthing area which can accommodate 300 boats. Access to this area is currently via two boat ramps to the north of the site.
- Pedestrian paths.
- A vegetated breakwater located along the east boundary. This area is inaccessible to the public.
- The site is largely surrounded by public foreshore land used for recreational and environmental purposes.

The recreational boating facilities within the wider area include both private and public amenities such as the Hastings Yacht Club and Hastings Boat Ramp. Recreational facilities within the precinct include the jetty, public boat ramp, playgrounds and skate park, off-leash dog exercise area, picnic facilities, the Pelican Park Recreation Centre, and Western Port Bay access.

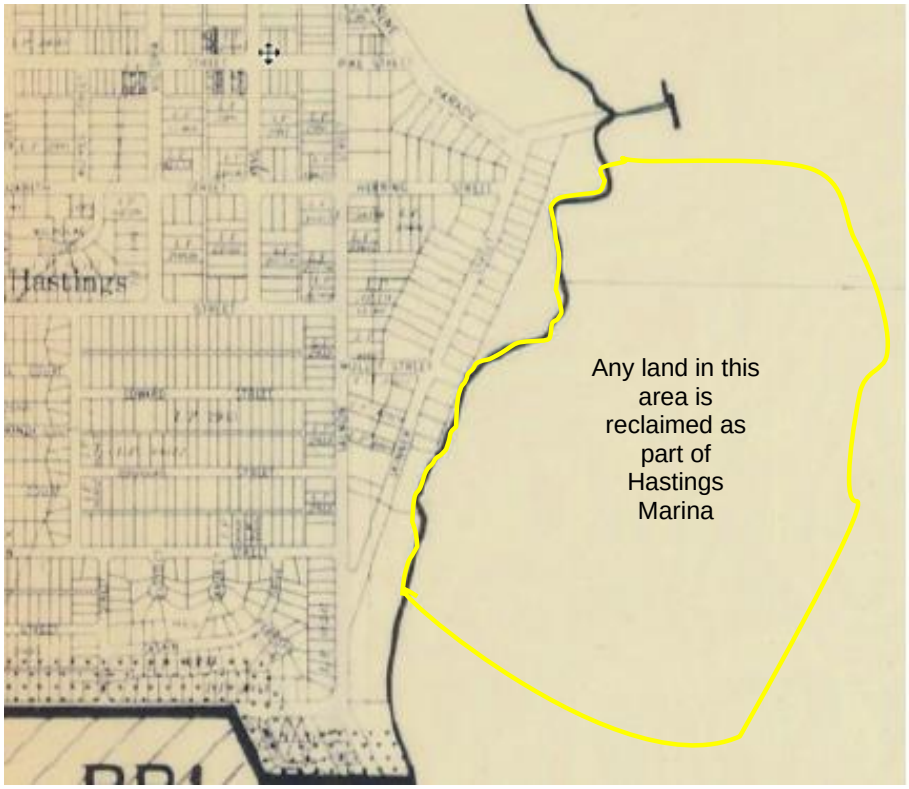
The site's immediate surrounds include:

North	Recreational boating facilities associated with the Hastings Yacht Club and Hastings Boat Ramp. Further north is the Pelican Park Recreation Centre and the Fred Smith Reserve.
East	Western Port Bay. This part of the Bay includes intertidal mud, sand or salt flats, intertidal marshes and intertidal forested wetlands.
South	Western Port Bay. This part of the Bay includes intertidal mud, sand or salt flats, intertidal marshes and intertidal forested wetlands.
West	Western Port Bay Trail. The Trail is a shared use path for pedestrians and cyclists and follows the coastline of Western Port Bay. Further west is the Hastings Township. There is a helicopter landing area just outside the boundary of the marina. The nearest residential buildings to the existing Marina building are approximately 200 metres to the west.

Please refer to Attachment 1 – Officer Assessment for a more detailed description of the site and surrounding area, including site photographs.



Figures 1: Aerial photograph showing the subject site and surrounding properties (Nearmap February 2024)



Figures 2: Plan showing area of original landform without reclaimed land now forming part of Hastings Marina (Western Port Regional Planning Authority 1978, State Library of Victoria)

The site is not specifically within the area covered by the Hastings South Coastal Management Plan 2015 (HSCMP), as the HSCMP applies specifically to Council managed land and the Western Port Marina land is managed by DEECA. However, the HSCMP does include reference to the Western Port Marina, which directly abuts and highlights the strategic significance of the whole area for recreational and boating purposes. This is discussed further in the report.

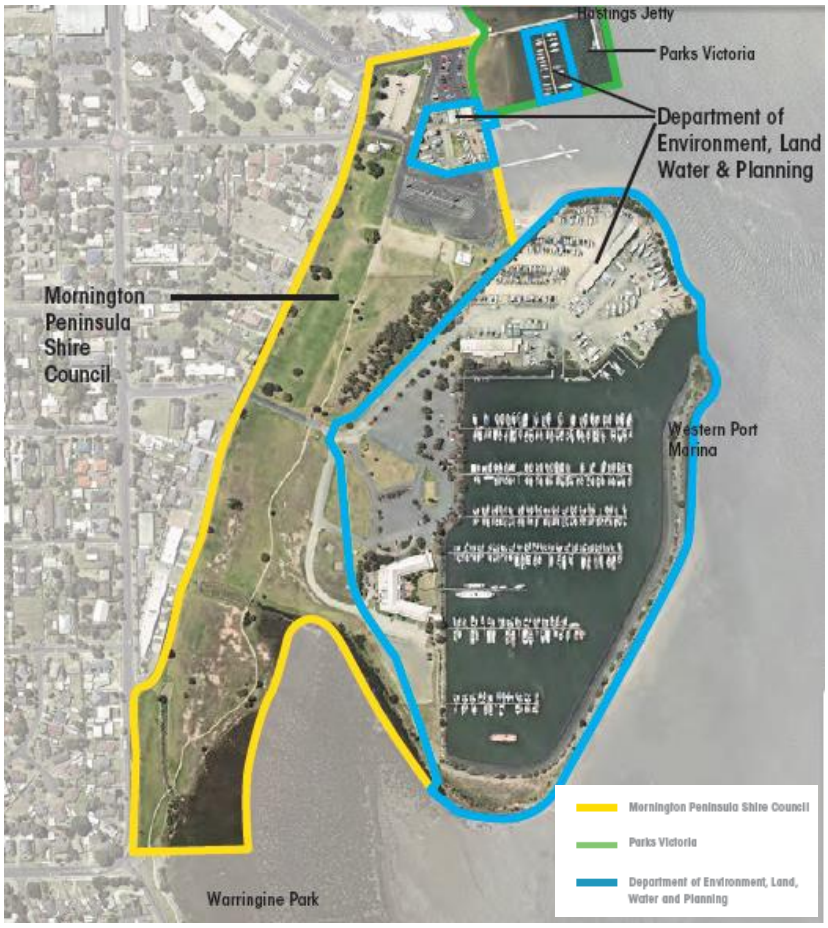


Figure 3: Land Management Responsibilities – DELWP now DEECA (Hastings South Coastal Management Plan 2015)

The site is not technically a part of the *Hasting Foreshore Masterplan 2023* (HFM) area, however, it is recognised and discussed as being a significant consideration of the existing landscape and importance to the Hastings foreshore. The HFM has been adopted by Council, which included publicly advertising it as part of the consultation process. As part of adopting the HFM, Council agreed to consider a revision of the boundary of the Western Port Marina as a High Priority (see page 66) and as shown in Figure 4 below. The permit applicant and Council's Property Team are negotiating on extension of the lease area, but this has not yet been finalised. Notwithstanding, all of the works proposed by this application are contained within the existing Westernport Marina Lease Boundary (red outline in Figure 4 below). This is discussed further in the report.

As per the HFM, the lease and licence areas are shown in Figure 4 as follows:

- Red: Existing Westernport Marina Lease Boundary (all buildings and works proposed by this application are within this area).
- Green: Vegetation Buffer (8m wide) funded in partnership with Westernport Marina.
- Blue: 2 Year license area to allow the marina maintenance works to occur.
- Orange and Blue: Long term inclusion within the marina lease boundary.

Figure 4: Westernport Marina lease and license boundaries (Hastings Foreshore Masterplan 2023)

Proposal

Please refer to the following for further details:

- Attachment 2 – Development Plans
- Attachment 3 – Planning report submitted by the Applicant
- Attachment 9 – Renders and Conceptual Landscaping

The application seeks approval for buildings and works associated with the existing marina. This includes:

- Four boat storage/stacker sheds with an associated hardstand area.

	No. of boats	No. of levels	Dimensions	Height
Shed 1A – Open on one side	40	2	53.7m x 7.2m	6.6m
Shed 1B – Open on one side	16	2	21.9m x 7.2m	6.6m
Shed 2 – Open on all sides	48	3	42.7m x 7m	9.9m
Shed 3 – Open on all sides	96	3	85.1m x 7m	9.9m

- A new 38.5m long boat ramp and forklift launching area, to allow for secondary access to the Marina's wet-berthing area and Western Port Bay, and allow for 'negative lifting' below ground level to drop boats in and out of the water; and
- Construction of service rows (one to the north of the proposed boat ramp, one to the south and east of the proposed boat ramp, along the internal side of the breakwater).

Figure 5 below shows an aerial view of the proposal in context with the site plan

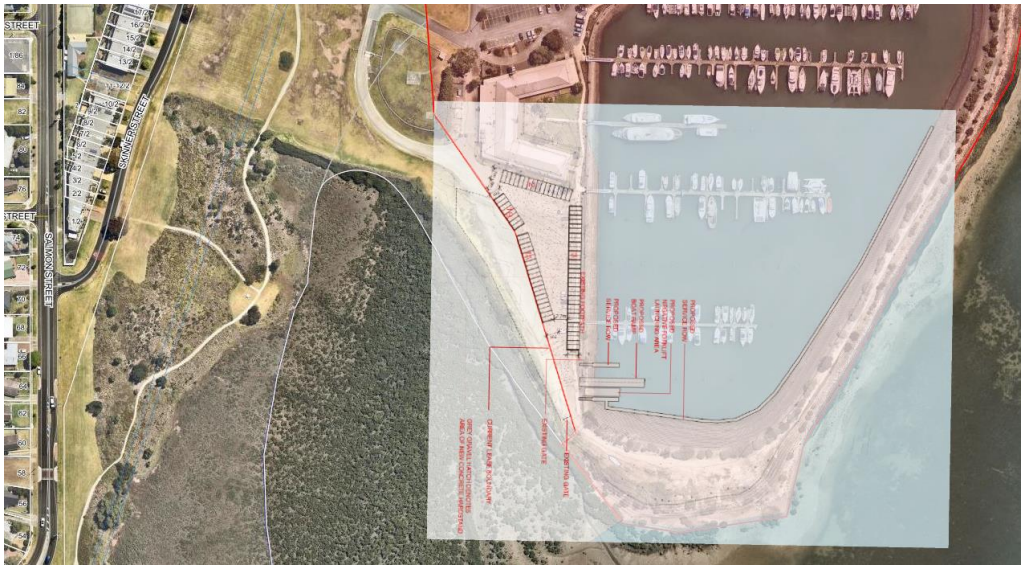


Figure 5: Proposed buildings and works in the context of the marine, foreshore, and nearby residential areas.

Figure 6: Taken from Attachment 9 – Renders and Conceptual Landscaping - shows the appearance of the buildings when viewed from the foreshore area with indicative landscaping as proposed in the Hastings Foreshore Masterplan.

Figure 7: Taken from Attachment 9 – Renders and Conceptual Landscaping - shows the appearance of the buildings when viewed from Skinner Street with indicative landscaping as proposed in the Hastings Foreshore Masterplan.

NOTIFICATION AND CONSULTATION

Notification

The application was notified by sending direct notice to adjoining properties and erecting a sign on the site for 14 days. The sign was erected at the entrance to the marina on Mullet Street.

Submissions

Please refer to Attachment 4 – Submissions (Confidential).

To date, eight objections have been received. The concerns raised can be summarised as:

- Perceived change to, or loss of, views
- Environmental effects
- Noise
- Perceived conflicts of interest

These are addressed further below.

REFERRALS

External Notification

A referral was sent to Melbourne Water under Section 55 of *the Act* as a Determining Referral Authority under the provisions of the Land Subject to Inundation Overlay. Melbourne Water provided conditional consent to the application.

Notification of the application was sent to the Department of Energy, Environment and Climate Action (DEECA) under section 52 of *the Act*. DEECA provided conditional consent to the application. DEECA is also the landowner of the Coastal Crown Land and provided consent under the *Marine and Coastal Act 2018*.

Please refer to Attachment 5 – Department of Energy, Environment and Climate Action Consent and Attachment 6 – Melbourne Water Consent.

Internal Council Referrals

Referral	Comments
Development Engineering	No objection, subject to conditions relating to vehicle access and stormwater capture and treatment.
Coastal Planning	No objection, subject to conditions relating to landscaping of the foreshore area.
Property	No objection.

CONSIDERATION

Refer to Attachment 1 – Officer Assessment for a detailed assessment against all the relevant criteria.

Refer to Attachment 7 – Planning Provisions for all relevant planning scheme provisions.

The proposal is consistent with the objectives and strategies of the relevant Planning Policy Framework (PPF) and objectives and decision guidelines of the PPRZ and LSIO1.

The following key issues are summarised:

Is the proposal acceptable having regard to relevant policy regarding use and development of marine and coastal Crown land?

Apart from the Public Park and Recreation Zone (PPRZ), the Planning Policy Framework (PPF) within the Planning Scheme contains multiple relevant clauses that contain objectives and strategies as well as policy documents to guide decision making with respect to this application. These are summarised below and addressed in order of appearance:

- 12.02-1S - Protection of the marine and coastal environment
    - Protect coastal and foreshore environments and improve public access and recreation facilities around Port Phillip Bay and Western Port by focusing development in areas already developed or in areas that can tolerate more intensive use.
    - Encourage revegetation of cleared land abutting coastal reserves.

- Protect and enhance natural features, landscapes, seascapes and public visual corridors.
- Plan for marine development and infrastructure to be sensitive to marine national parks and environmental assets.
- Consider as relevant:
  - Any applicable environmental *management plan or coastal and marine management plan approved under the Marine and Coastal Act 2018 (MACA):*
    - Hastings South Coastal Management Plan 2015 – Council Plan adopted under predecessor legislation to *MACA being the Coastal Management Act 1995.*
    - Hastings Foreshore Master Plan 2023 – Council Plan
  - Marine and Coastal Policy (DELWP, 2020)
  - Marine and Coastal Strategy (DELWP, 2022) – Activity 4.5 seeks to implement the Victorian Recreational Boating Strategy Victorian Recreational Boating Strategy 2021–2030
  - Siting and Design Guidelines for Structures on the Victorian Coast (DELWP, 2020)

- 12.02-2S - Marine and coastal Crown land
  - Design, locate and maintain buildings and structures to effectively manage:
    - Any increase in exposure to coastal hazard risk, including rates of sea level rise, erosion, accretion or inundation.
    - Exposure to public health and safety risks.
    - Any detrimental impacts (in particular increased hazard risk) on neighbouring Crown or private land.
    - Adverse effects on the environment and associated uses and values.
    - Impact on marine and coastal functions and processes.
  - Ensure the siting and design of development on marine and coastal Crown land:
    - Facilitates shared infrastructure and the use of land for more than one use.
    - Uses materials and finishes that are sympathetic to the coastal environment.
    - Is durable in the long term.
    - Minimises the environmental footprint.
  - Ensures that use and development on or adjacent to marine and coastal Crown land:
    - Maintains safe, equitable public access.

- Improves public benefit.
- Demonstrates need and has a coastal dependency.
- Minimises loss of public open space.

This clause also references all of the above Policies, Strategies and Guidelines

- 17.04-2S - Coastal and maritime tourism and recreation
  - Ensure development is of an appropriate scale, use and intensity relative to its location and minimises impacts on the surrounding natural, visual, environmental and coastal character.
  - Develop a network of maritime precincts around Port Phillip and Western Port that serve both local communities and visitors.
  - Maintain and expand boating and recreational infrastructure around the bays in maritime precincts at Frankston, Geelong, Hastings, Hobsons Bay, Mordialloc, Mornington, Patterson River, Portarlington, Queenscliff, St Kilda, Stony Point/Cowes and Wyndham
  - Support a sustainable network of facilities for recreational boating and water-based activities that respond to:
    - Identified demand.
    - Use and safety considerations.
    - The carrying capacity of the location.
    - Coastal processes.
    - Environmental values.
  - Consider as relevant:
    - Recreational Boating Facilities Framework July 2014 - Central Coastal Board

The proposal is considered acceptable having regard to the majority of the PPF provisions as it will maintain and expand an existing boating and recreational facility in Hastings and Western Port, which are identified in numerous policies and strategies as being of State and Regional significance and of high economic value to the State in terms of their recreation and tourism value.

The proposal is considered to improve recreational facilities around Western Port by focusing development in areas already developed or in areas that can tolerate more intensive use, being within an existing marina.

The proposal includes revegetation of the coastal reserves, which enhances the natural landscape. It is acknowledged that the proposal will be visible from the seascape and from public visual corridors and this is addressed in greater detail below with regard to the relevant policies and strategies. The proposal is considered to be infrastructure that is sensitive to the marine national parks and environmental assets as it is located fully within an existing disturbed and man-made environment.

The proposal is not considered to have an increase in exposure to coastal hazard risk, including rates of sea level rise, erosion, accretion or inundation. The proposal will not have detrimental impacts (in particular increased hazard risk) on neighbouring Crown or private land, given its location and design not contributing to potential erosion or landslip along the coast. The proposal is not considered to have any adverse effects on marine and coastal environment functions and processes given its location within a man-made coastal structure (reclaimed land for a marina). This area is not natural, and the land area is devoid of any environmental qualities. The aquatic environment in the marina would be limited to species that have inhabited it since it was built and given it is a functioning marina, it is unlikely to be habitat for any vulnerable or endangered species. Construction of the infrastructure within the marina can be appropriately managed to avoid adverse environmental impacts through the construction management plans required by DEECA, Melbourne Water and Council.

As is discussed in detail below, the proposal is considered to:

- Maintain safe, equitable public access.
- Improves public benefit.
- Demonstrates need and has a coastal dependency.
- Minimises loss of public open space.

The proposal is considered to meet the identified demand and the carrying capacity of the location within the boundaries of the existing Marina. Whilst arguments could be made for or against the size or type of structures, there is a clear demand for recreational boating facilities within State policy in Western Port and Hastings plays a clear and distinct role in meeting that demand. The Marina is one key part of that, with the Yacht Club and public boat ramp being the other elements. The Marina proposal would help alleviate pressure on the boat ramp.

Hastings South Coastal Management Plan 2015 – Council Plan adopted under predecessor legislation to *MACA being the Coastal Management Act 1995.*

The Hastings South Coastal Management Plan 2015 (HSCMP) does not specifically include the Western Port Marina within the HSCMP boundaries as the plan applies specifically to Council managed land and Western Port Marina is managed by DEECA. However, it does include reference to the Western Port Marina and highlights the strategic significance of the whole area. The vision for HSCMP was developed through consultation with the community and is relevantly stated as:

> *The Hastings Foreshore is a coastal recreation zone that attracts and welcomes visitors and residents to the Western Port region to enjoy a wide range of recreational opportunities involving coastal, marine, boating and eco-tourism experiences. It makes a crucial contribution to the sense of place of the Hastings community and is the gateway to Western Port.*

The key objectives are:

- To promote and enhance the role of the Hastings South foreshore as a Regional Boating Precinct
- To connect and enhance the Western Port Trail
- To improve the landscape amenity of the foreshore
- To protect and enhance the biodiversity values of the foreshore.

Key actions relevant to this application that are outlined within the HSCMP are:

- Improved public boat ramp and associated access and trailer parking facilities.
- Improved public amenity and landscaping based on a Landscape Master Plan.
- Revegetation of protected areas to enhance the biodiversity values of the foreshore.

In section 3 of the HSCMP which outlines the Strategy for Boating, the range of boating facilities recognises the existence and importance of the Marina as a Regional Boating Facility. It also notes that the Victorian Coastal Strategy 2014 also identifies Hastings as both a State Marine Precinct and a Regional Boating Precinct.

Western Port Marina is a significant piece of coastal infrastructure and offers:

- Permanent and casual berthing (wet and dry)
- Travel Lift
- Hard Stand
- Boat ramp
- Fuel pump
- Laundry and bathroom facilities
- Sewerage pump out facilities.

The definition and criteria for a Regional Facility are listed below:

Description/Definition	Types of Facility	Criteria
Regional Boating Facility		
A regional boating facility will either provide a range of services and facilities at one location (e.g. at a harbour or marina), or be one regional facility such as a regional boat ramp that, due to its size, provides for a large catchment.	Regional boat ramps, marina, piers/jetties, moorings, maintenance and services facilities, harbours.	A high level of significance that provides a boating destinations; A high level of investment as a key boating activity centre; An exceptional level of service provision that caters for a wide range of boating activity and skill levels; Provision of a safe harbour; Provision of maintenance and service facilities; Wide catchment area, with an even spatial distribution, at major population centres; All tide access; Public access to the facility and coastal environment; and A key boating destination within the network.

Hastings Foreshore Master Plan 2023 – Council Plan

The Hastings Foreshore Masterplan aims to build on the foundations of the previous Hastings South Coastal Management Plan, and the Mornington Peninsula Shire Arts and Culture Plan 2020 – 2024. However it seeks to engage more comprehensively and consider the marine and coastal environment more broadly as detailed in the *Marine and Coastal Act 2018* and Marine and Coastal Policy 2020.

As with the HSCMP, the plan does not specifically include the Western Port Marina. However, it does contain multiple references to it and also acknowledges and foreshadows the potential expansion of the Marina that has been raised earlier in this report. The relevant sections of the HFM considered relevant to the consideration of the application are:

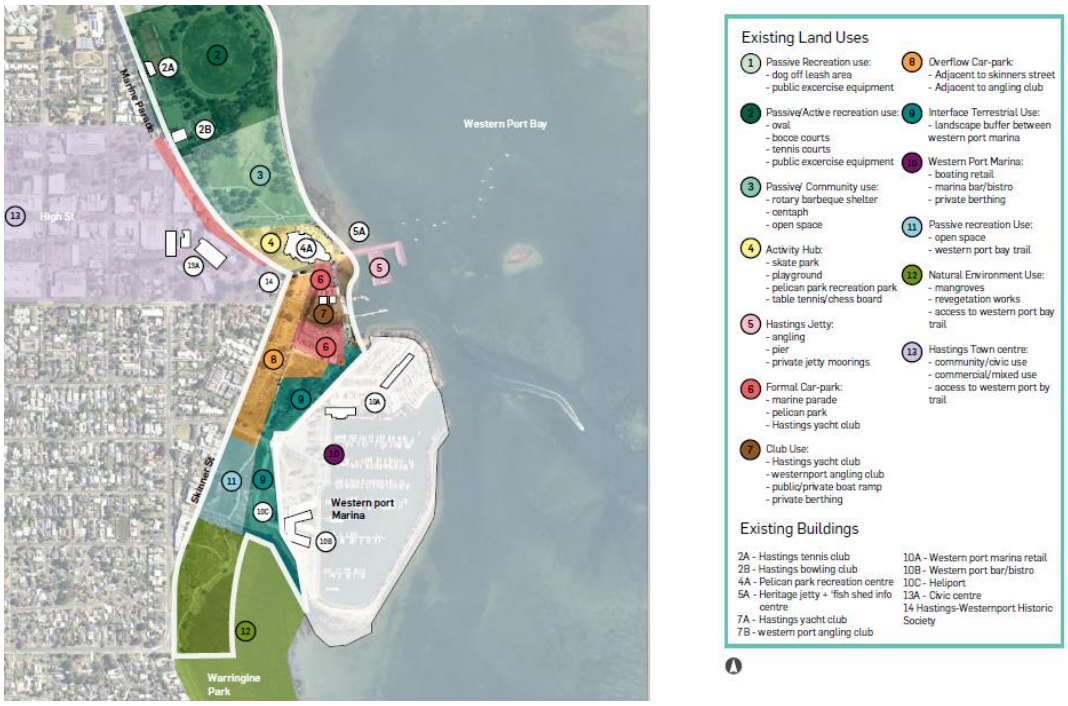
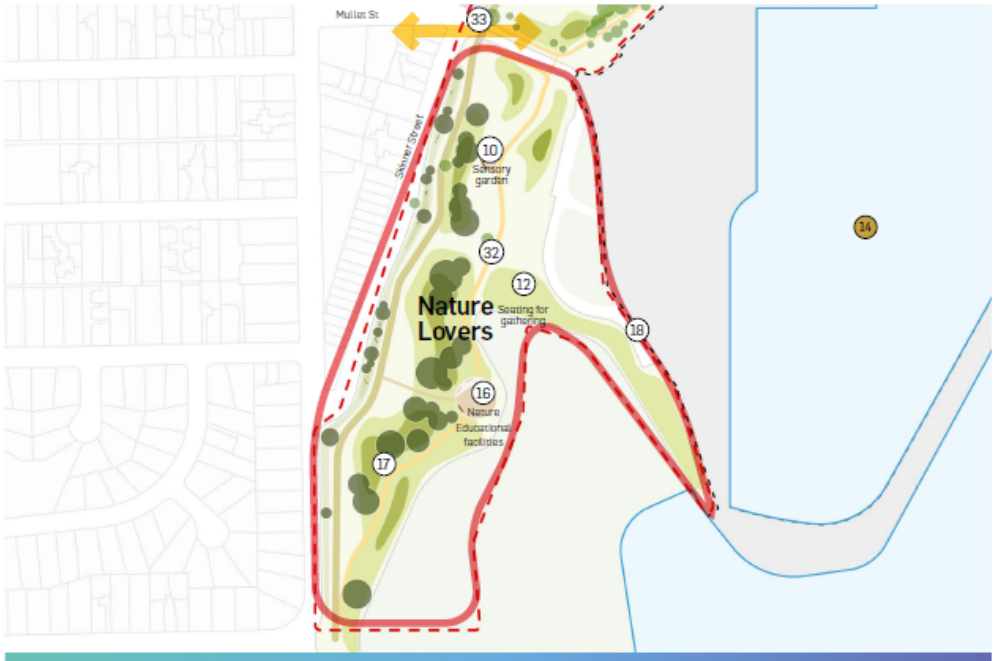


Figure 8: Map showing existing conditions, including landscape buffer area between the Marina and Skinner Street

PRIORITISED ACTIONS OVERVIEW



Nature Lovers

Item	Actions	Partner With	Involve/Consult	Priority	Timing	Cost
12	Seating for gathering, picnicking and storytelling		Bunurong Land Council Aboriginal Corporation Landscape Architect Consultancy	High	Short	$
31	Extension of native vegetation		"Bunurong Land Council Aboriginal Corporation Willum Warrain"	High	Short Term	$$
18	Westernport Marina Boundary Revision	Westernport Marina, DEECA	Community	High	Immediate to Short Term	$
32	Meandering paths to connect gathering and education spaces			High	Short term	$$
33	Improve pedestrian access to Foreshore via Mullet Street			High	Short Term	$$$
10	Sensory Garden with indigenous species		"Bunurong Land Council Aboriginal Corporation Willum Warrain"	Medium	Short Term	$
16	Nature Education Facilities		Bunurong Land Council Aboriginal Corporation Willum Warrain Local Schools Nature Conservation groups	High	Short Term	$
17	Nature Appreciation Space		Bunurong Land Council Aboriginal Corporation	Medium	Medium Term	$$

Figure 9: Map showing proposed actions in 'Nature Lovers' precinct adjoining the Western Port Marina. Note action 18 being the relevant 'Boundary Revision' area noted earlier and that the current proposal does not impede into this.

Figure 10: Map showing proposed approach or actions with regard to improving connections. Note the HFM does not seek to maintain or improve views from private property through the Western Port Marina. The focus of the HFM is to improve and maintain corridors from town. The proposal does not sit within the identified view corridors.

Marine and Coastal Policy (DELWP, 2020)

The *MACA* requires a Marine and Coastal Policy (the Policy) to set out policies for planning and managing the marine and coastal environment, and to provide guidance to decision makers in achieving the MACA's objectives. The Policy must also include a Marine Spatial Planning Framework (this will set out steps for achieving integrated and coordinated planning and management of Victorian's marine environment).

The Policy sets out key policy considerations. Amongst these includes how to assess and consider buildings and structures on marine and Coastal Crown land. As discussed previously, the application has been referred to DEECA as the relevant Coastal Crown land manager and they have provided consent based on consideration of these policy

considerations. Nonetheless, Shire officers have also considered the application against these policies and consider the application is acceptable having regard to them.

Relevantly, it should be noted that the Policy does require consideration to be given to (amongst other things) retaining public views to and from the water and/or along the coast. The proposal is considered to retain public views as much as practicable, as demonstrated in the photomontages provided by the applicant.

The Policy also seeks to relocate existing buildings and structures that are not functionally dependent on being located on marine and coastal Crown land, away from that land if suitable opportunities arise. This is not considered one of those opportunities and a Marina is in specifically listed as an example of buildings and structure types that are functionally dependent on being located on marine and coastal Crown land.

Another relevant policy provision is to not impede access to marine and coastal Crown land, except where access control is the main purpose. It is considered that whilst the proposal may inhibit direct access to this part of the foreshore via an operational component of a Marina to maintain public safety and for security purposes. However, public access would still be available to the land via the rest of the foreshore area and the proposal would not inhibit this.

Marine and Coastal Strategy (DELWP, 2022) – Activity 4.5 seeks to implement the Victorian Recreational Boating Strategy

Victorian Recreational Boating Strategy 2021–2030

This Marine and Coastal Strategy (Strategy) identifies actions to achieve the Policy's vision, and is the first of three, five-year strategies. It outlines priority actions for the next five years that lay the foundations to achieve the intended outcomes of the Policy over the next 15 years. It also outlines timeframes and responsibilities for delivery. The Strategy does not contain any specific guidelines or assessment criteria, but of its key priority actions (Activities) is to implement the Victorian Recreational Boating Strategy 2021–2030 (VRBS).

The VRBS identifies the significance of boating in Victoria as a social and recreational activity as well as economic. Boating is a key economic driver, generating nearly $8 billion in economic activity and employing thousands of Victorians. It is also a key component of the visitor economy to the State and Mornington Peninsula Shire. However, with this comes pressures and challenges. The VRBS aims to set a pathway to ensure that opportunities are recognised at the same time as dealing with the challenges of growth that more boaters brings.

For context, the Shire has the equal highest registration of recreational boats in the State as any other Local Government area. Hastings/Western Port Marine is a Regional Facility that attracts recreational boating and fishing from surrounding Councils and from across the State (see Recreational Boating Facilities Framework July 2014 - Central Coastal Board).

One of the key objectives of the VRBS is to enhance the Victorian boating experience by renewing existing facilities and building new ones. Within this strategic objective, reducing congestion is one of the actions. The VRBS states:

Solutions to reduce congestion will be explored and where possible may include:

- dry stacks and seasonal moorings
- partnership arrangements with asset/land managers.

The VRBS also seeks partnership opportunities to support dry stacking ventures, to alleviate the demand on State or Local launch facilities, such as the Hastings Boat Ramp.

The proposal is considered generally consistent with the VRBS.

Siting and Design Guidelines for Structures on the Victorian Coast (DELWP, 2020)

The Siting and Design Guidelines for Structures on the Victorian Coast *(*Guidelines) provides a clear set of guidelines that consider siting and design challenges in response to pressures of population growth and climate change. The Guidelines identify successful practices to reduce the vulnerability of the coastline while managing coastal land and infrastructure, maintaining public access and enhancing visitor experience. The Guidelines establish first principles, being 'Purpose and need,' 'Climate adaptation' and 'Footprint.'

High demand for use and development of a limited and precious resource dictates that only structures that functionally need to be near water and that significantly contribute to social values, such as public enjoyment and appreciation of the coast, should be on marine and coastal Crown land. The Guidelines identify that Marinas are a type of structure that is functionally dependent on being near the water, consistent with the Marine and Coastal Policy, which satisfies the 'Purpose and need' considerations.

Whilst the area is identified as being subject to inundation under current and proposed planning controls (see discussion of Planning Scheme Amendment C271), the proposal is considered satisfactory having regard to them. This includes consideration of sea level rise. The buildings are not likely to be adversely impacted by or impact the flow of flood water and Melbourne Water has given its consent to the proposal as the relevant referral authority with respect to flooding. The proposed planning controls effectively retain the same considerations as existing controls because the land is not being identified in new planning controls to address or deal with coastal erosion process. This is because the subject land (Marina break wall) has been constructed to a standard that is unlikely to be impacted by future flood events up to the year 2100 and because modelling does not suggest this area of the coastline will be impacted. It is noted that areas adjacent to the site are proposed to be within the new erosion controls.

In terms of 'Footprint,' the key consideration with respect to the proposal is that the design of new structures should minimise the footprint (area and height). The proposal seeks to do this, while still achieving its functional requirements as a dry berth boat storage facility.

The development has been appropriately located and designed, having regard to the relevant 'Site and Design Considerations' within the Guidelines, being:

- Views
    - Does the structure enrich and not impede views to and from the coast?
    - Does the structure maintain important public views, vistas and sightlines?
- Public Open Space
    - Does the development contribute to an uncluttered, clear and usable environment?

- Landscape Character and sense of place
- Identify the local coastal character of the surrounding buildings and township.
- Does the structure blend with and complement the local coastal character?

- Public Access
  - Does the structure enhance public access to the coast and minimise loss of open space?
  - Does the structure provide adequate connections to and from the site?
  - Does the structure impede public access to the coast?
  - Does the structure provide adequate access?

- Increased function and adaptability
  - Identify opportunities to combine the uses of buildings and structures of the site and structures surrounding the site.
  - Does the structure make efficient use of the site and demonstrate multiple use?
  - Can the structure be adapted for future change?

- Materials and finishes
  - Identify the materials, colours and textures in the surrounding natural
  - and built environments.
  - Are the materials, colours and textures representative of the coastal environment and setting?
  - Are the materials durable in the coastal environment?
  - Are the materials sustainable?

The proposal is not considered to satisfy all of the relevant considerations. However, having regard to the first principles, there are instances where a proposal that has a dependent and functional relationship with the water cannot meet all criteria, such as those in relation to views. As can be seen in the attached photomontages, the proposal would impede some views to and from the coast. However, this must be considered in the context of the site and its use. The two x three storey open sided structures have been designed with open sides so as to avoid solid built form and to allow for views from the public realm, through the site and to the water. In addition, these views and vistas are not identified in any strategic documents or policies as being of specific importance. That is not to dimmish the relevance of this consideration, but it is to recognise that it is not of the same significance as some other comparable water and coastal views on the Peninsula that are recognised for specific qualities. As noted in the discussion regarding the Hastings Foreshore Masterplan 2023, the proposal does not sit within the identified public views sought to be protected in that document.

The proposed materials, colours and finishes are considered appropriate and to fit in with the surrounding natural and built environment, given that half of the cladding on the two storey buildings are to be natural timber finish and a darker charcoal cladding.

The Hastings township does not currently have any form of built form or character controls, except for the activity centre, which is approximately 500 metres north west of the proposed development site. As such, there is no distinct or identifiable local coastal character of the surrounding buildings. Opposite the road in Skinner Street there is a mix of single and two storey development of ranging architectural design and age. The newer housing stock in this location is predominantly two storeys with contemporary design. Those with frontage to Skinner Street usually feature a second storey balcony facing the water (south east). There is an example of a three storey development in Mullet Street. The proposed buildings, being two and three storeys, with a height of 6.6 metre and 9.9 metre, respectively. The proposed two storey buildings are lower than most contemporary two storey dwellings and the proposed three storey buildings are consistent with contemporary two or three storey residential development.

The proposed structures do not directly enhance public access to the coast and would provide a physical barrier for general public access to this part of the foreshore. However, as is evident in the Hastings Foreshore Masterplan 2023, the Marina is not identified as an area in which to improve or provide public access to the foreshore. This is because the Marina serves a specific function and is dependent on being sited near the water. The buildings also do enhance accessibility to the water for recreational boaters, which are a large cohort of users of the coast as identified in the multiple policies and strategies discussed above.

This proposal does not directly affect open space in the typical sense of open space that is used for open air sports or recreation. This part of the site is overflow parking/hardstand area. As such, it does not lead to the loss of open space, which is accommodated for in the adjoining Council managed reserve and that has a clear and distinct plan in place for improvements for that purpose.

In terms or increased function and adaptability, the proposed buildings cannot readily fulfill this criterion given the nature and very specific purpose they are designed to serve. The proposal would also not lend itself to mimic the adjoining building as that would likely make there a more dominant and visible structure. Given their modest complexity, the buildings could likely be adapted in future, although it is considered unlikely.

Recreational Boating Facilities Framework (RBFF) July 2014 - Central Coastal Board (CCB)

The RBFF – CCB identifies recreational boating as a significant activity on the central coast, especially on Port Phillip and Western Port Bays, which offer diverse boating opportunities. Hastings is listed as a Regional Facility within the 'North-West Western Port' precinct. The RBFF does not identify Hastings as a location for redevelopment of facilities at this stage. The Framework does more broadly suggest several options to address the increasing demand for boating infrastructure with one of those options being:

> *"Off-the coast" storage facilities (i.e. dry berths) can facilitate boat maintenance, slipping and retrieval (a boat valet service) for many of the smaller classes of recreational boats*

This is in the context of relieving pressure on congested areas. The RBFF -CCB does not identify the Hastings Boat Ramp as congested, however, as is seen with the additional detail contained within the HSCMP 2015 and HFM 2023, there is a desire to improve Hastings Boat Ramp and facilities due to its high usage and Regional importance. One of the available options is to increase dry berth boat storage in the vicinity to provide alternative options for recreational boating.

Public Park and Recreation Zone (**PPRZ)**

The proposal is considered to be consistent with the purposes of the PPRZ, which are:

- To recognise areas for public recreation and open space.
- To protect and conserve areas of significance where appropriate.
- To provide for commercial uses where appropriate.

The area is recognised in many State and Regional level policies, strategies and plans for the purpose of recreation.

The surrounding significant conservation area and habitat (Ramsar Wetlands) are not being disturbed by the proposal, which is located wholly on reclaimed and disturbed land. Appropriate measures can be put in place during construction (erosion and sediment control) to protect this area of significance.

The proposal is considered an appropriate commercial use (commercial boating facility) within an existing marina boundary, and in accordance with a use that is recognised in all of the above-mentioned policies, strategies and guidelines.

Is the proposal acceptable having regard to impact on views?

By their nature as part of a functional marina, all buildings and work areas need to be in or near the water. Sheds 1A and 1B are on the boundary between the marina and the adjoining reserve and are lower in height than the sheds that are more internal to the marina. They have timber cladding to the upper half to blend in with the surrounding environment and charcoal coloured cladding on the lower half. Sheds 2 and 3 will be open on all sides.

The service rows, launching area, and boat ramp are consistent with the established character of the marina. These will be largely obscured from the public realm, other than the waterfront.

The boat sheds have been designed in a way that is generally visually sympathetic to their context at an established and functional marina. The triple level sheds are open on all sides, and thus present an open view of the function as well as light through the buildings, as seen in Figure 8 below. The sheds are separated, and in this way allow some views of the water and foreshore between buildings. The lower buildings are sited away from the water, closer to the public foreshore areas, in order to minimise the visual impact of the buildings within the landscape.

As can be seen in Figures 6 and 7 earlier in the report and the attached photomontages, the buildings will be visible from parts of Skinner Street and the adjoining reserve. However, from this aspect they will not be a dominant feature as there is intervening vegetation and distance. They will also be sited adjacent to the existing built form on the land.

Shire officers note that the objections about loss of views have come from the dwellings on the other side of Skinner Street, which are approximately 230 metres from the site of the proposed buildings and works. The planning scheme does not protect or seek to provide a reasonable sharing of private views in this instance, as may exist in other parts of the Shire through controls such as the Design and Development Overlay. Even if there were such controls, an assessment would need to be conducted to determine if any loss of views was reasonably in the circumstances. In this case, the proposal is not considered to result in any unreasonable loss of views from private property, given that:

- There are no planning scheme provisions seeking such an outcome.
- The topography of the land surrounding the development inhibits open views or vistas to the water and surrounding coastal landscape from ground level.

- The views into or through the marina are not identified as a significant view or vista in any strategic documents (Figure 10 above shows the public views considered to be significant and requiring consideration).

- The majority of properties in Skinner Street that are of two storeys would be likely to retain views and vistas from any second storey viewing area, across or to the south east of the site to enjoy views of Western Port (as seen below).

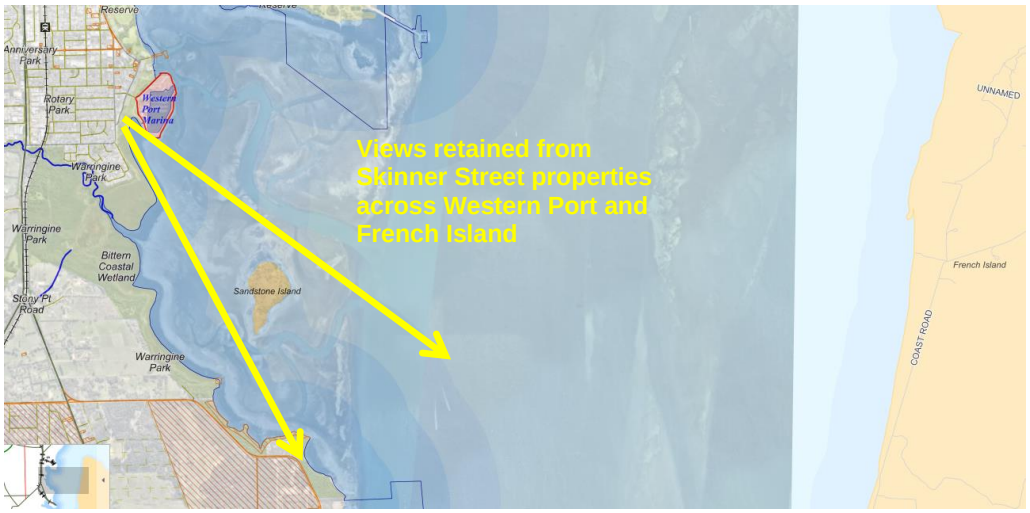


Figure 11: Plan showing views likely to be retained by any two storey properties in Skinner Street.

The photographs in Figures 12-13 below were taken from Skinner Street, facing the proposal, and show that the development will be mostly obscured by the topography and vegetation of the foreshore reserve/bay trail.

Figures 12: View of the development site as viewed from Skinner Street (facing east)

Figures 13: View of the development site as viewed from Skinner Street (facing south east)

The photograph in Figure 14 was taken from the subject site, looking back towards the dwellings in Skinner Street. The majority of each dwelling is obscured from vision at lower level with some of the second storeys being visible.

Figure 14: View of dwellings on Skinner Street from the development site of proposed Shed 3 (facing west).

Is the environmental impact acceptable?

The proposal supports the development of coastal areas whilst ensuring that the environmental values are protected. All works are located within the existing marina boundaries and are able to be appropriately managed. Any runoff caused by the proposed buildings and works will be managed within the site. There will be no impacts on the mangroves to the south of the marina.

The ramp, service rows and launching area will be designed and constructed to withstand flood risk as inherently required in a marina. The buildings and works have been appropriately designed to ensure they do not redirect or obstruct floodwater or cause increasing flood levels and flow velocities.

All of the buildings are proposed within the boundaries of the existing marina, on an area that has previously been surfaced with gravel. The boat ramp is within the marina, contained by the existing breakwater, and an additional boat ramp and footpaths are not considered to have any impact on the broader environment of Western Port Bay as discussed earlier in this report.

The application was referred to DEECA, which has provided conditional consent to the proposal. Conditions from DEECA, Melbourne Water and Council requiring Construction or Environmental Management Plans are considered reasonable to ensure the land and marine environment is protected during construction.

Consideration of the matters raised in the objections

In terms of noise, the noise generated by the proposal is not expected to be any different from the noise generated by the existing marina, or the adjacent helicopter landing area. Given the topography, with a slight rise between the nearest dwellings and the proposed buildings, and the distance from these dwellings, officers did not have any concerns about an unreasonable increase in noise from the proposal.

An objector has raised concerns that Council is both the decision maker for the planning application, and land manager for the coastal Crown land. It should be noted that DEECA is the public land manager as the built form part of the proposal relates to land managed by DEECA, not Council. The area of land managed by Council (as shown earlier in Figure 4) is providing access to the site and the area that will require planting.

Nevertheless, clause 72.01 of the Planning Scheme sets out who is the Responsible Authority for administering and enforcing the provisions of the scheme. The Mornington Peninsula Shire Council is the responsible authority. It is common for Council's across the State to be a proponent and responsible authority and if that occurs, provisions exist for considering the application. In this case, Council is not the proponent and the lease or licensing arrangements do not prevent Council from being the decision maker with respect to this application. The application is objectively assessed against the planning scheme, regardless of who owns or manages the land, as is the case for road reserves and many other instances of non-private land tenure.

There were also concerns raised by objectors about the extent of notification letters. Letters were sent to all adjoining land, as required by s52(1)(a) of *the Act*, but as this would only include the foreshore area, a public notice sign was also erected at the entry to the land. The application was also advertised on the Shire's website. Letters were not sent to the dwellings on Skinner Street due to their distance from the subject site (approximately 225 metres).

Planning Scheme Amendment C271morn

Mornington Peninsula Planning Scheme Amendment C271morn seeks to introduce planning controls along Western Port to ensure development in coastal areas protects local township

character and is responsive to erosion and inundation hazards from predicted sea level rise. Amendment C271morn is informed by the Western Port Coastal Villages and Surrounding Settlements Strategy, 2019, which mapped the area proposed for inclusion in the Significant Landscape Overlay (SLO2) and the Western Port Local Coastal Hazard Assessment, 2014, which mapped the extent of the Land Subject to Inundation Overlay (LSIO) and the Erosion Management Overlay (EMO) proposed to be introduced by the Amendment. Amendment C271morn is a 'seriously entertained' planning scheme amendment, which means Council must give it weight when assessing the application. The following new or amended overlays would apply to the subject site:

- Significant Landscape Overlay – Schedule 2 – Coastal and Foreshore Landscape – A new permit requirement for buildings and works

- Land Subject to Inundation Overlay – Schedule 2 – revising an existing requirement

Erosion Management Overlay – Schedule 6 is proposed to be applied adjacent to the area where works are proposed, but none of the works are proposed within the EMO6, which has been articulated previously in the report when discussing coastal hazard and inundation issues.

SLO2

Amendment C271morn would amend the existing SLO2 and apply it to areas identified as 'foreshore' land in Balnarring, Crib Point, Bittern and Hastings, including the subject site.

The proposed provisions of the SLO2 effectively seek to include controls specifically to protect the coastal and foreshore landscape. However, the objectives and provisions effectively mimic the considerations already contained within State and Local policy regarding views, vistas, visual, natural and cultural heritage values of the coastal landscapes.

The proposed objectives are:

- To protect and enhance the visual, natural and cultural heritage values of coastal and foreshore landscapes.

- To protect coastal and foreshore landscapes from visual intrusion resulting from the inappropriate siting, design or materials of buildings and works, including infrastructure service lines.

- To encourage siting, design and landscaping of buildings and works that is responsive to the coastal and foreshore landscape character, including the use of natural materials and muted colours to reflect the coastal setting.

- To maintain and enhance vegetation and landscape setting as an important element of coastal and foreshore landscapes, including the use of vegetation buffers adjacent coastal reserves and alongside public thoroughfares.

- To ensure new development positively responds to the coastal settings and to the threats of coastal hazards including erosion and inundation.

As can be seen, the provisions have already been discussed and considered through other existing policy. The effective difference would be that a site specific control would require consideration of these matters and provide potential exemptions from a planning permit. However, the proposal would not qualify for the proposed exemptions. It is considered that the proposal would satisfy the objectives and relevant considerations within the SLO2 if it did require a planning permit.

LSIO2

Amendment C271morn would introduce new Schedule 2 to the LSIO and apply it to land along Western Port Bay, including the subject site. The LSIO would remain a permit trigger for the two shed that have walls. The main difference in the application of Schedule 2 is that applications would be required to submit a Coastal Hazard Vulnerability Assessment (CHVA) if considered reasonable or necessary. In this case, a CHVA was not considered necessary, due to the nature of the buildings and works proposed. The buildings are open, and the other works are required to be located close to the sea by their nature. The development has been designed to respond appropriately to the identified flood hazard within an existing marina. Melbourne Water have provided conditional consent as the relevant referral authority under the current and proposed control.

CONCLUSION

The proposed buildings and works are considered acceptable having regard to all the relevant provisions of the Mornington Peninsula Planning Scheme and the *Planning and Environment Act 1987*. It is therefore recommended that a notice of decision to grant a permit be issued.

OFFICER DIRECT OR INDIRECT INTEREST

No person involved in the preparation of this report has a direct or indirect interest requiring disclosure.

Planning Delegate Report - P23/1571

Mornington Peninsula Shire

APPLICATION SUMMARY	
Planner	Charlotte McGillivray
Date	20/03/2024
Application Number	P23/1571
Proposal	THE DEVELOPMENT OF BUILDINGS AND WORKS ASSOCIATED WITH A MARINA IN ACCORDANCE WITH THE ENDORSED PLANS
Address	Crown Allotment 17 Section D Township of Hastings 21 Skinner Street HASTINGS
Applicant	C/- Tract Consultants Pty Ltd
Planning Scheme	Mornington Peninsula Planning Scheme
Zone & Overlays	PPRZ, LSIO1
Permit Triggers	LSIO1 – Buildings & works PPRZ – Buildings & works
Restrictions on title	No
Advertising	Yes
Objections	Yes – 3
Referrals	External – DEECA External – Melbourne Water Internal – Coastal Planning Internal – Development Engineering Internal – Property
CHMP required?	No

OFFICER DIRECT OR INDIRECT INTEREST
No person involved in the preparation of this report has a direct or indirect interest requiring disclosure.

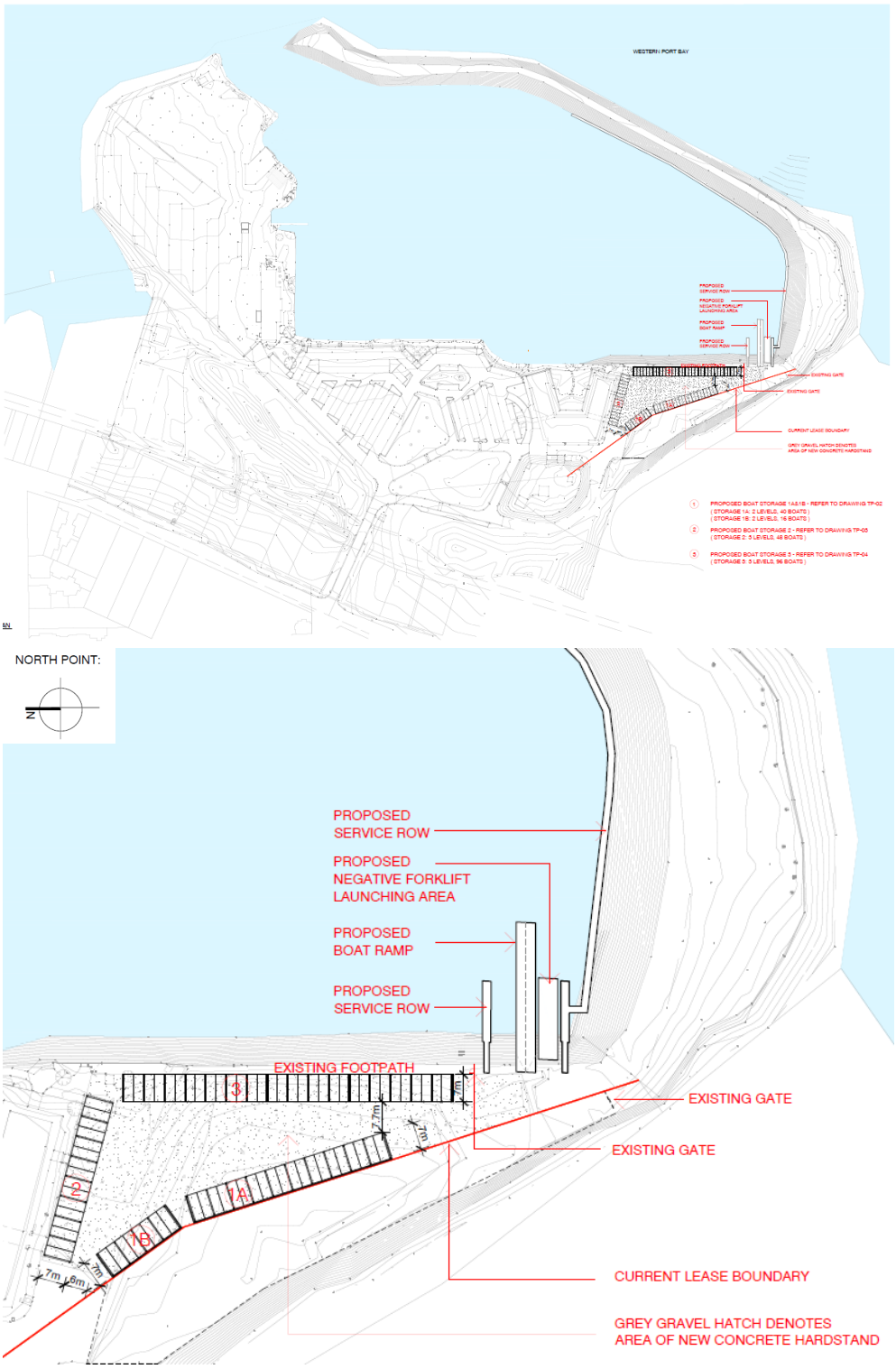
PROPOSAL
This application seeks approval for buildings and works associated with the existing marina. This includes:

- Four boat storage/stacker sheds with an associated hardstand area;

	No. of boats	No. of levels	Dimensions	Height
Shed 1A	40	2	53.7m x 7.2m	6.6m
Shed 1B	16	2	21.9m x 7.2m	6.6m
Shed 2	48	3	42.7m x 7m	9.9m
Shed 3	96	3	85.1m x 7m	9.9m

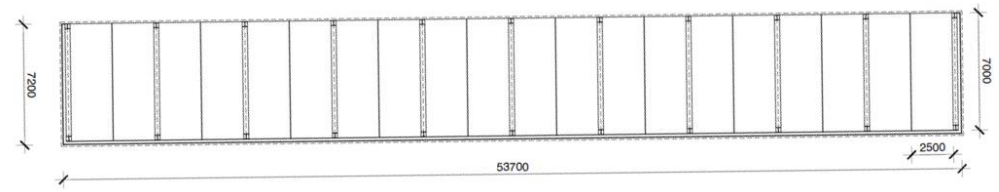
- A new 38.5m long boat ramp and forklift launching area, to allow for secondary access to the Marina's wet berthing area and Western Port Bay, and allow for 'negative lifting' below ground level to drop boats in and out of the water; and
- Installation of service rows (one to the north of the proposed boat ramp, one to the south and east of the proposed boat ramp, along the internal side of the breakwater).

Site Plan:

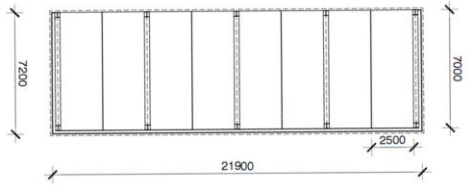

NORTH POINT:
N
PROPOSED
SERVICE ROW
PROPOSED
NEGATIVE FORKLIFT
LAUNCHING AREA
PROPOSED
BOAT RAMP
PROPOSED
SERVICE ROW
EXISTING FOOTPATH
EXISTING GATE
EXISTING GATE
CURRENT LEASE BOUNDARY
GREY GRAVEL HATCH DENOTES
AREA OF NEW CONCRETE HARDSTAND

Floor Plans

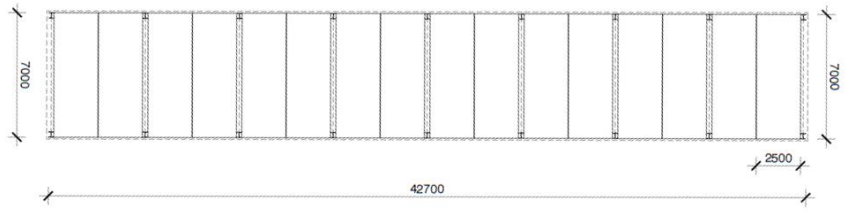
Shed 1A:



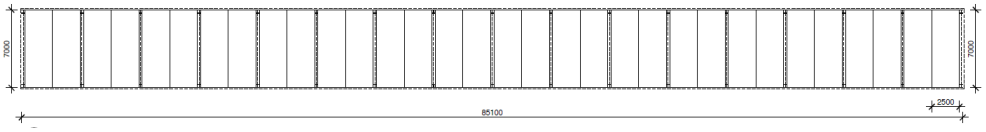
Shed 1B:



Shed 2:

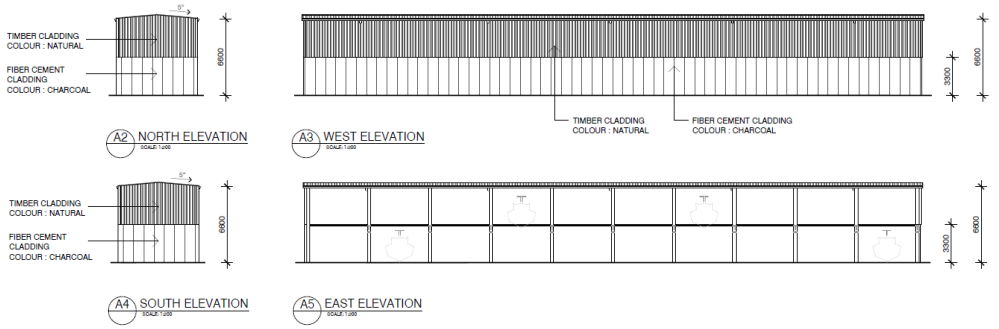


Shed 3:

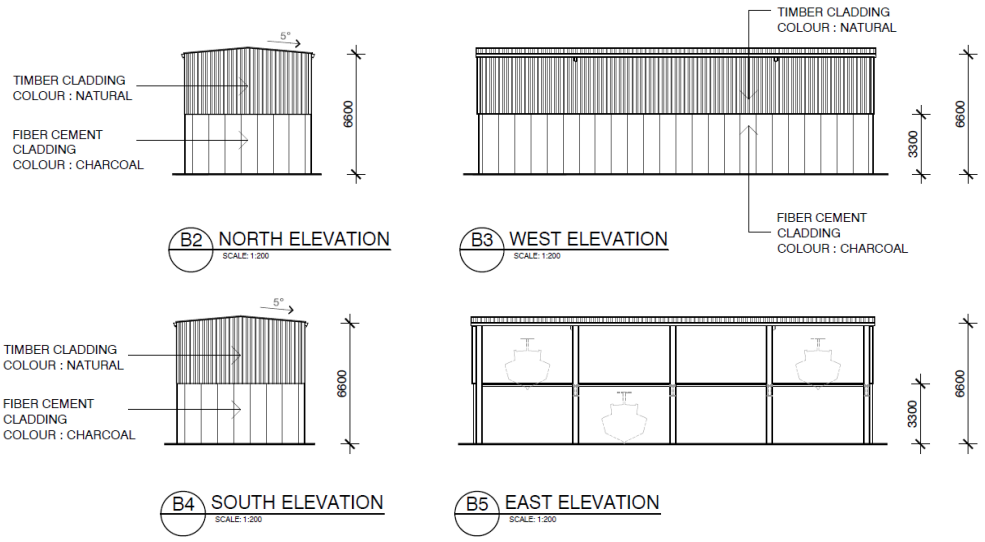


Elevations

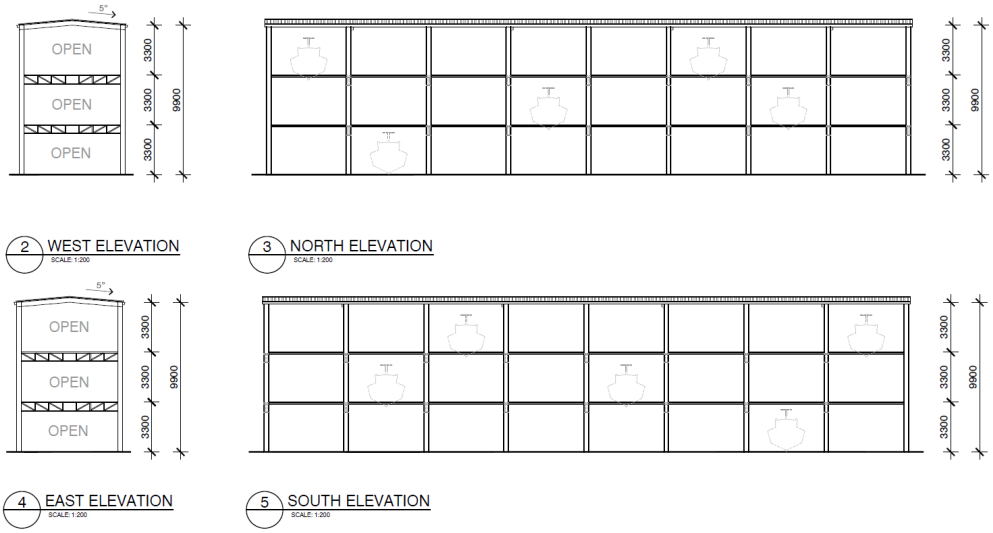
Shed 1A:



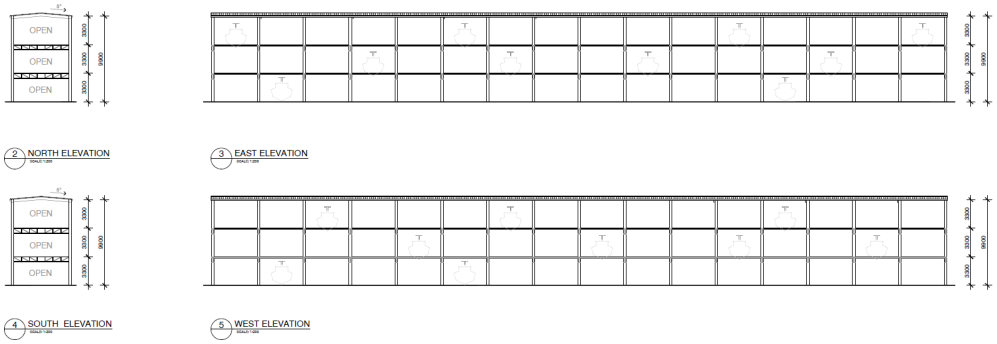
Shed 1B:



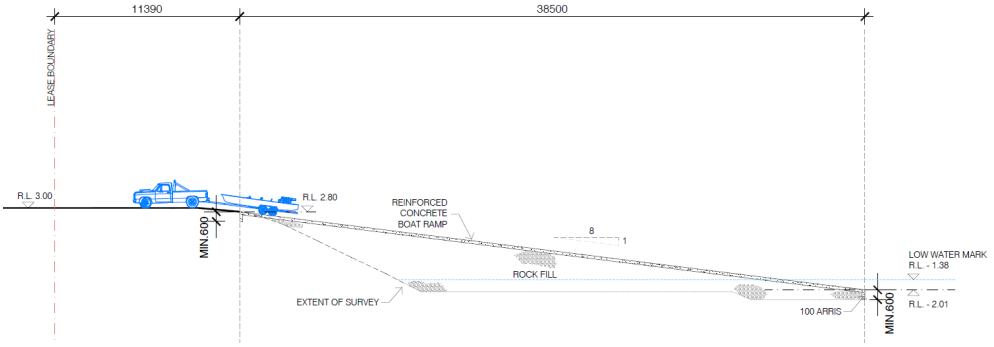
Shed 2:



Shed 3:



Boat Ramp Section:



ZONE/OVERLAYS

Zone/Overlay	Permit Trigger?	Rationale
PPRZ	Yes	A permit is required to construct a building or construct or carry out works.
LSIO1	Yes	A permit is required to construct a building or to construct or carry out works.

SUBJECT SITE
Permit/Site history
The following previous decisions are relevant to the subject site:

Permit	Date	Proposal
P09/1458	30 Oct 2009	THE DEVELOPMENT OF A BOAT STORAGE SHED AND ASSOCIATED WORKS IN ACCORDANCE WITH THE ENDORSED PLANS
P10/1844	30 Nov 2010	THE USE OF THE LAND FOR THE SALE AND CONSUPTION OF LIQUOR (RESTAURANT AND CAFÉ LICENCE) IN ASSOCIATION WITH THE EXISTING FOOD AND DRINK PREMISES IN ACCORDANCE WITH THE ENDORSED PLANS
P19/0411	16 Sep 2019	THE DEVELOPMENT OF AN OUTBUILDING (RETROSPECTIVE) AND ASSOCIATED WORKS IN ACCORDANCE WITH THE ENDORSED PLANS

Cultural Heritage Management Plan (CHMP)
A CHMP is not required as the buildings and works are located in an area that has been subject to significant ground disturbance; and the statutory authorisation was granted before 28 May 2007 (section 19(1)).

Subject Site
From the application:
The Site address is 21 Skinner Street, Hastings (the 'Site') and is currently occupied by the Westernport Marina.
The Site is formally recognised as Crown Allotment 17 Sec. D Township of Hastings.
The Site is irregular in shape and approximately 16 hectares in area. Primary access to the Site is via Mullet Street with additional service entry points available from various site boundaries. A number of existing public streets cease at the Site's boundaries, including Mullet

Street. In addition, a number of existing public open spaces immediately adjoin the Site boundaries.
The Site is currently used for recreational boating and associated facilities. Whilst a privately leased asset, the Marina provides for strong community uses and is primarily available for public use, with the facilities and amenities available to the general public.
The Site contains several services that facilitate recreational boating. These include:

- *Car parking facilities to the west of the Site comprising approximately 400 car parking spaces.*
- *Dry boat storage to the north of the Site, which compromises both outdoor and undercover storage. Currently the Site comprises of 160 places for dry berthing outside and 23 places for undercover storage.*
- *A wet berthing area which can currently accommodate 300 boats. Access to this area is currently provided by two boat ramps located to the north of the Site.*
- *Pedestrian paths which follow the perimeter of the Site.*
- *A breakwater located along the east boundary of the Site. This area is inaccessible to the public.*

Existing established vegetation exists along the breakwater.

Appendix 1 shows photographs of the site and surrounds.

Aerial Photo showing subject site and surrounding properties – Feb 2024

- The application was referred to Coastal Planning, who have advised that the marina have been conducting works on Council managed land without formal consent for many years, potentially dating back to 2003. This has been more prominent since 2018, with an electric gate installation and the use of Council managed land for soil stockpiling and other purposes. There was an agreement between Council, DEECA and the marina, relating to these ongoing issues. Council have agreed to consider an extension of the lease area as part of the Hastings Foreshore Masterplan. This was publicly advertised as part of the Hastings Foreshore Masterplan and adopted by Council.
- The applicant and Council's Property Team are consulting on the extension of the lease area, but this has not yet been finalised.

- Accordingly, as a condition of this permit, all unauthorised infrastructure must be removed from Council managed coastal Crown land, including but not limited to; gates, fences, solar panels and hard stand areas (gravel and asphalt).
- A landscape plan will be required showing how Council managed Crown land will be restored. The removal of unauthorised infrastructure and landscaping works in accordance with the endorsed plans must be completed within 12 months.

Per the Hastings Foreshore Masterplan, the lease areas are as below:

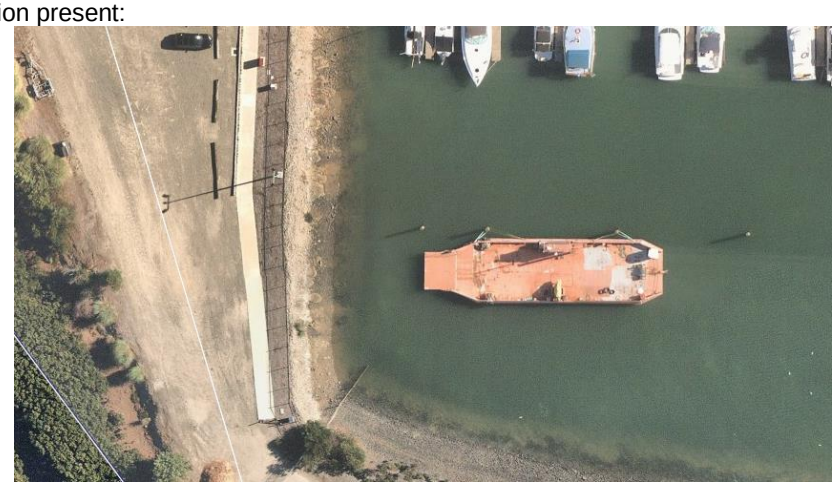
RED : Existing Westernport Marina Lease Boundary

GREEN : Vegetation Buffer (8m wide) funded in partnership with Westernport Marina

BLUE : 2 Year license area to allow Marina maintenance works to occur

ORANGE and BLUE : Long term inclusion within the WP Marina lease boundary

Some vegetation is required to be removed to facilitate the boat ramp, however this is not remnant vegetation, as seen below in the Aerial Photograph from 2021, where there is no vegetation present:



SURROUNDING PROPERTIES

From the application: *The Site is situated approximately 400 metres east of the Hastings Major Activity Centre which includes a wide range or retail and commercial uses and a variety of food and drink premises.*

The Site is largely surrounded by land utilised for recreational purposes associated with the Hastings Foreshore Precinct.

The recreational boating facilities within the broader area include both private and public amenities such as the Hastings Yacht Club and Hastings Boat Ramp. As identified in the Hastings Foreshore Precinct Plan, key recreational facilities within the Precinct include the historic jetty, the public boat ramp, play space and skate park, off-leash dog area, picnic facilities, the Pelican Park Recreation Centre, and Western Port Bay.

The Site's immediate surrounds can be summarised as follows:

- *North: Immediately north of the Site are the recreational boating facilities associated with the Hastings Yacht Club and Hastings Boat Ramp. Further north is the Pelican Park Recreation Centre and the Fred Smith Reserve.*
- *East: To the east of the subject Site is Western Port Bay.*
- *South: South of the Site is Western Port Bay. This part of the Bay is made up of mangroves which have been identified as an important ecological feature of the area.*
- *West: Immediately west of the Site is the Western Port Bay Trail. The Trail is a shared use path for both pedestrians and cyclists and follows the coastline of Western Port Bay through several towns on the eastern side of the Mornington Peninsula. Further west is the Hastings Township.*

PUBLIC NOTIFICATION

The application was advertised by sending direct notice to adjoining properties and erecting a sign on site for 14 days.

Objections

To date, five objections have been received. Their concerns relate to:

- Loss of views/visual impact
- Conflict of interest
- Environmental impact

REFERRALS

Referral	Internal/External	Response
DEECA	External – s52	No objections, subject to conditions.
Melbourne Water	External – s55	No objections, subject to conditions.
Coastal Planning	Internal	No objections, subject to conditions.
Development Engineering	Internal	No objections, subject to conditions.
Property	Internal	No objections.

PLANNING POLICY & PROVISIONS

Planning Policy Framework (PPF)
Clause 11.01-1L-01 Settlement – Mornington Peninsula
Clause 11.03-4S Coastal Settlement
Clause 11.03-5S Distinctive areas and landscapes Mornington Peninsula Localised Planning Statement (Victorian Government, 2014)
Clause 12.02-1L Protection of coastal areas – Mornington Peninsula
Clause 12.02-1S Protection of coastal areas
Clause 12.02-2S Coastal inundation and erosion
Clause 12.02-3S Bays
Clause 12.05-1S Environmentally sensitive areas

Clause 13.03-1S Floodplain management
General Provisions
Clause 65 Decision Guidelines

Hastings Foreshore Masterplan 2023
This Masterplan has been prepared by Council to achieve the vision of the future Hastings Foreshore as a focal point for leisure, water activities and community gatherings. The Masterplan has five key statements:

- Playful destination – a foreshore that welcomes all members of the community and supports both everyday play and activity as well as special events.
- Connected foreshore – a foreshore that is easily accessible by all transport modes and abilities. It specifically seeks to deliver 'easy access to and from the water with adequate facilities.
- Resilient coastline – a foreshore with an adaptive edge to mitigate coastal risks and which recognises and respects the naturally evolving environment.
- Enhanced natural environment – a foreshore with enhanced ecological value and a healthy natural environment for future generations.
- Collaborative and engaging processes – a foreshore managed through a process driven by community and stakeholder engagement and which embeds traditional Owner aspirations.

ASSESSMENT
Thee proposed development is consistent with the objectives of the PPRZ and LSIO1 and the above policies and provisions on the following basis:

- The proposal increases the recreational value of Hastings while protecting the environmental and conservational values of the coast. The proposed boat stacker sheds and boat ramp will improve the functionality and efficiency of the Western Port Marina.
- The proposal supports the development of coastal areas whilst ensuring that the environmental values are protected.
- All works are located within the existing marina boundaries and are able to be appropriately managed. Any runoff caused by the proposed buildings and works will be managed within the site. There will be no impacts on the mangroves to the south of the marina.
- The siting and design of the ramp and sheds is responsive to the coastal environment and allows the development to blend in with the surrounding environment. The use of muted tones and natural materials, particularly where facing the public realm, make a positive contribution to the built environment.
- The proposal supports economic development and tourism opportunities. The development will increase activity in the Hastings Foreshore are, strengthening the role of the Western Port Marina and the broader Hastings Foreshore as a tourist destination.

Clause 36.02 – Public Park and Recreation Zone (PPRZ)

- The proposal is in keeping with the relevant purposes of the PPRZ as it provides recreational boating facilities to the existing marina, in a manner that does not detrimentally impact the environmental values of the Western Port Bay.
- The proposal is consistent with the Municipal Planning Strategy and State Planning Policy.
- The buildings and works have been appropriately sited within the existing marina to minimise the impact on Western Port Bay. The marina provides access for visitors and boating activity without further impacting the more environmentally sensitive areas of the bay.

- The boat sheds have been designed to respect the existing marina facilities and its surrounds. Shed 1 is on the boundary between the marina and the adjoining reserve and is lower in height than the sheds that are more internal to the marina. Shed 1 has timber cladding to the upper half to blend in with the surrounding environment. The lower half of Shed 1, and all three levels of Sheds 2 and 3, are open sided.
- The service rows, launching area, and boat ramp are consistent with the established character of the marina. By their nature they are close to the water level and will be largely obscured from the public realm.
- The application has been referred to DEECA, who consent to the proposal, subject to conditions 5-14 below.

Clause 44.04 – Land Subject to Inundation Overlay Schedule 1 (LSIO1)

- The boat sheds, service rows, launching area and boat ramp are all located on or partly on land affected by the LSIO.
- With respect to Sheds 2 and 3, as they are an open building with no walls, they are exempt within the LSIO1. Sheds 1A and 1B are partially enclosed for security, and do require planning permission. Given the sheds will still be open along one side, there is a very low risk to life, health and safety.
- The ramp, service rows and launching area will be designed and constructed to withstand flood risk as inherently required in a marina.
- The buildings and works have been appropriately designed to ensure they do not redirect or obstruct floodwater or cause increasing flood levels and flow velocities.
- The application was referred to Melbourne Water, who have not objected, subject to a condition relating to the containment of sediment and runoff during construction (condition 15).

Planning Scheme Amendment C271morn

Mornington Peninsula Planning Scheme Amendment C271morn seeks to introduce planning controls along Western Port to ensure development in coastal areas protects local township character and is responsive to erosion and inundation hazards from predicted sea level rise. Amendment C271morn is informed by the Western Port Coastal Villages and Surrounding Settlements Strategy, 2019 and the Western Port Local Coastal Hazard Assessment, 2014, which mapped the extent of the LSIO and the EMO proposed to be introduced by the Amendment. Amendment C271morn is seriously entertained, and has been taken into consideration in the assessment of this application. The following new or amended overlays would apply to the subject site:

- SLO2 (new permit trigger for buildings and works)
- LSIO2
- EMO6 is proposed to be applied adjacent to the area where works are proposed, but none of the works are proposed within the EMO6.

<u>SLO2</u>

Amendment C271morn would amend the existing SLO2 and apply it to areas identified as 'foreshore' land in Balnarring, Crib Point, Bittern and Hastings, including the subject site. The amended overlay seeks:

- *To protect and enhance the visual, natural and cultural heritage values of coastal and foreshore landscapes.*
- *To protect coastal and foreshore landscapes from visual intrusion resulting from the inappropriate siting, design or materials of buildings and works, including infrastructure service lines.*
- *To encourage siting, design and landscaping of buildings and works that is responsive to the coastal and foreshore landscape character, including the use of natural materials and muted colours to reflect the coastal setting.*

- *To maintain and enhance vegetation and landscape setting as an important element of coastal and foreshore landscapes, including the use of vegetation buffers adjacent coastal reserves and alongside public thoroughfares.*
- *To ensure new development positively responds to the coastal settings and to the threats of coastal hazards including erosion and inundation.*

The relevant decision guidelines of this proposed overlay are:

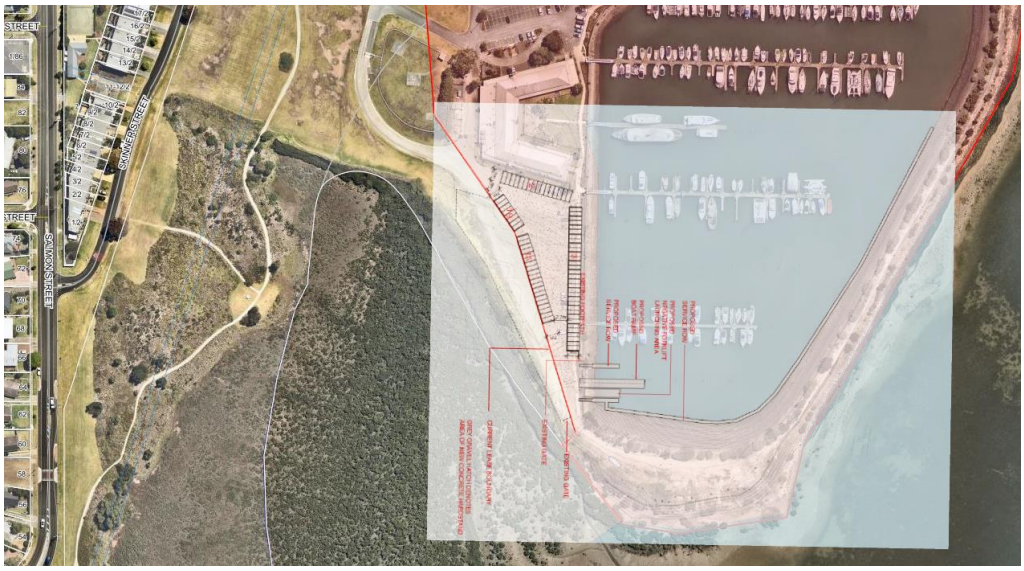
- *The landscape character objectives of this schedule.*
- *The protection and appropriate enhancement of the landscape, having regard to:*
  - *Protecting landscape areas and vantage points of high quality.*
  - *Maintaining visual sequences along access routes.*
  - *The conservation of significant areas of natural vegetation and significant stands of trees in coastal landscapes.*
- *The control of the density of buildings and subdivision in areas of scenic value*
- *Whether the siting, height, scale, materials and form of proposed buildings and works, including infrastructure service lines, has been designed to have least visual effect on the coastal landscape and scenic views.*
- *Whether approval of the proposed buildings and works is compatible with maintaining the visual, natural and cultural heritage significance of the coastal landscape.*
- *The availability of reasonable alternative sites, alternative building designs or alternative construction practices for proposed buildings and works that would better meet landscape character objectives of this schedule, having regard to the size and topography of the land and the form and nature of the proposed buildings and works.*
- *The availability of reasonable alternative routes, alternative designs or alternative forms of installation for infrastructure service lines that would better meet landscape character objectives of this schedule.*
- *The benefit of permit conditions requiring all building materials to be non-reflective and of colours which are complementary to those of natural landscape.*
- *The benefit of conditions requiring the landscaping of buildings and works, while also having regard to the maintenance of existing viewlines and the open landscape character of some areas of the coastal hinterland.*
- *Whether the proposal incorporates natural materials and muted colours that reflect the coastal setting.*

- As considered against the current planning controls, the buildings and works have been appropriately sited within the existing marina to minimise their impact on the foreshore and Western Port Bay.
- The boat sheds have been designed to respect the existing marina facilities and its surrounds. Shed 1 is on the boundary between the marina and the adjoining reserve and is lower in height than the sheds that are more internal to the marina. Shed 1 has timber cladding to the upper half to blend in with the surrounding environment. The lower half of Shed 1, and all three levels of Sheds 2 and 3, are open sided.
- The service rows, launching area, and boat ramp are consistent with the established character of the marina. By their nature they are close to the water level and will be largely obscured from the public realm.
- The boat sheds have been designed in a way that is visually sympathetic to their context. The triple level sheds are open on all sides, so as to allow both the flow of water and views through the buildings. The sheds are separated to allow views of the water and foreshore between buildings as well as through, and the lower buildings are sited away from the water and closer to the public foreshore areas, to minimise the impact of the buildings within the landscape.
- Conditions of permit will ensure landscaping outcomes are achieved.
- Overall, the development positively responds to its coastal setting and to the threats of coastal hazards including inundation.

LSIO2
Amendment C271morn would introduce new Schedule 2 to the LSIO and apply it to land along Western Port Bay, including the subject site. LSIO would remain a permit trigger. The main difference in the application of Schedule 2 is that applications would be required to submit a Coastal Hazard Vulnerability Assessment (CHVA). In this case a CHVA was not considered necessary, due to the nature of the buildings and works proposed. The buildings are open, and the other works are required to be located close to sea level by their nature. The development has been designed to respond appropriately to the identified flood hazard, and the views of Melbourne Water have been sought, as would be required under proposed Schedule 2.

Response to Submissions
Loss of views/visual impact

- Council officers note that the objections about loss of views have come from the dwellings on the other side of Skinner Street, which is approx. 240m from the site of the proposed buildings and works. The image below shows the proposed buildings and works in the context of the marina, foreshore reserve, and Skinner Street:



The photographs below were taken from Skinner Street, facing the proposal, and show that the development will be mostly obscured by the topography and vegetation of the foreshore reserve/bay trail.

This photograph was taken from the subject site, looking back towards the dwellings in the distance. The ground floors of the dwellings are barely visible.

- The boat sheds have been designed in a way that is visually sympathetic to their context. The triple level sheds are open on all sides, so as to allow both the flow of water and views through the buildings. The sheds are separated to allow views of the water and foreshore between buildings as well as through, and the lower buildings are sited away from the water and closer to the public foreshore areas, to minimise the impact of the buildings within the landscape. By their nature as part of a marina, all buildings are works are required to be in or near the water.
- An image was submitted by an Objector, superimposing the sheds onto a photograph of the foreshore, however this image did not show a scale or any levels, and it is therefore not clear how accurate the image is, and how it would reflect the actual loss of views.

Environmental Impact

- All of the buildings are proposed within the boundaries of the existing marina, on reclaimed land and an area that has previously been surfaced with gravel.
- There are no works outside the marina boundary or within the foreshore or mangrove areas. Any runoff caused by the proposed buildings and works will be managed within the site. There will be no impacts on the mangroves to the south of the marina.
- The boat ramp is within the marina, contained by the existing breakwater, and an additional boat ramp and footpaths will have no impact on the environment of Western port.
- The application was referred to Coastal Planning and DEECA, neither of whom have objected. A condition of permit will require a Construction Environmental Management Plan to ensure the environment is protected during construction, which is standard for a development of this nature.

Conflict of Interest

- An objector has raised concerns that Council is both the decision maker for the planning application, and land manager for the coastal Crown land, however this is a very common arrangement for coastal and foreshore areas.
- The application is objectively assessed against the planning scheme, regardless of who owns or manages the land.
- There were also concerns about the extent of notification letters. Letters were sent to all adjoining land, as required by s52(1)(a) of the Act, however this only includes the foreshore area, so to address s52(1)(d) of the Act, a public notice sign was also

erected. The application was advertised on Council's website. Letters were not sent to the dwellings on Skinner Street due to their distance from the subject site (approx. 300m).

CONCLUSION
The proposal is acceptable in the context of the site and the area. The buildings and works are consistent with the Municipal Planning Strategy and State Planning Policy. The proposal:

- Provides recreational boating facilities to the existing marina in a manner that does not detrimentally impact the environmental values of the Western Port Bay.
- Has been appropriately sited within the existing marina to minimise the impact on Western Port Bay.
- Has been designed to respect the existing marina facilities and its surrounds.
- Has been appropriately designed to ensure it does not redirect or obstruct floodwater or cause increasing flood levels and flow velocities.

DECISION
That Council having considered all the matters required under Section 60 of the *Planning and Environment Act 1987* decides to grant a planning permit under the provisions of the Mornington Peninsula Planning Scheme in respect of the land described as Crown Allotment 17 Section D Township of Hastings Parish of Tyabb, also known as 21 Skinner Street HASTINGS in accordance with the endorsed plans, subject to the following conditions:

THE DEVELOPMENT OF BUILDINGS AND WORKS ASSOCIATED WITH A MARINA IN ACCORDANCE WITH THE ENDORSED PLANS

CONDITIONS

Amended Plans

1. Before the developments starts, amended plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and will then form part of the permit. The plans must be drawn to scale with dimensions. The plans must be generally in accordance with the plans submitted with the application but modified to show:

    a) Vehicle access to the boat storage area to the satisfaction of the Responsible Authority.

    b) A notation that there will no vehicle, boat, or trailer parking outside the lease and/or licence area to the satisfaction of the Responsible Authority.

    c) Reinforced concrete surfacing to the south of the boat ramp to enable vehicle movements within the lease and/or licence area to the satisfaction of the Responsible Authority.

    d) The extent of reinforced concrete surfacing to align on all plans.

Approved Development not Altered

2. The approved development as shown on the endorsed plans must not be altered without the prior written consent of the Responsible Authority (unless otherwise specified by a condition of this permit, consent is not required for any buildings

or works which do not require a planning permit under the Mornington Peninsula Planning Scheme).

Colours/Materials

3. The materials and colours of the exterior finish of the buildings must be in accordance with the endorsed plans unless with the further permission of the Responsible Authority.

Disturbed Surfaces

4. All disturbed surfaces on the land resulting from the development must be revegetated and stabilised to the satisfaction of the Responsible Authority.

Department of Energy, Environment and Climate Action

5. The works are to be carried out generally in accordance with:

    - The Marine and Coastal Act consent application titled 'WESTERN PORT MARINA' dated 2 June 2023, prepared by Tract Consultants.
    - Amended plans submitted via email by Tract Consultants on 25 October 2023, prepared by Search Studio CO Pty Ltd, dated 24 October 2023, drawing numbers TP-01, TP-02, TP-03, TP-04.
    - Plans submitted in response to the further information request titled 'PLAN – BOAT RAMP' and 'SECTION – BOAT RAMP' prepared by Search Studio CO Pty Ltd, dated 19 December 2023 and 14 December 2023 respectively.

6. Any modification to the works proposed will require further approval by the Regional Director, Port Phillip Region, Department of Energy, Environment and Climate Action (DEECA).

7. Prior to works commencing, a Construction Environmental Management Plan (CEMP) must be prepared to the satisfaction of DEECA. The CEMP must include:

    a) A detailed construction methodology for the proposed boat ramp and negative launching area, with reference to excavation, fill deposition and pile installation requirements.

    b) Where any construction wastes, equipment, machinery and/or earth is to be stored/stockpiled during construction.

    c) Measures to control erosion and sediment and sediment laden water runoff including the design details of structures.

    d) The location of trenching works, boring, and pits associated with the provision of services.

8. Access and egress to the boat storage area and boat ramp/launching area is only permitted via the lease and/or licence area.

9. Indigenous vegetation must not be damaged or removed as a result of the works.

10. Any clearing or construction activity associated with the works, should be carried out in accordance with the with EPA Publication No. 275 *Construction Techniques for Sediment Pollution Control* (May 1991).

11. The construction site must be managed in accordance with EPA Publication *1834: Civil construction, building and demolition guide* (26 November 2020).

12. Construction equipment, building materials, refuse and site run-off must be contained and controlled and not permitted to impact on the marina or enter Western Port Bay.

13. All works must be completed, the site reinstated, and the works maintained to the satisfaction of DEECA.

14. This consent under the *Marine and Coastal Act 2018* will expire if the works are not completed within two years of the date of issue, unless an extension of time is applied for and granted by the Regional Director, Port Phillip Region, DEECA.

Melbourne Water

15. Sediment and contaminant laden runoff during construction must be contained. Such runoff is not permitted to enter the bay. Prior to commencement of construction, a Site Environmental Management Plan (SEMP) must be produced and adopted on site.

Landscaping and Coastal Land

16. Within 12 months of the issue of the permit the following must be completed:

    - Any unauthorised infrastructure within the Council-managed coastal Crown land must be removed, including but not limited to; gates, fences, solar panels and hard stand areas (gravel and asphalt).

    - All landscaping works shown on the endorsed plans, including landscaping within the coastal Crown land, carried out and completed to the satisfaction of the Responsible Authority.

    Once the fencing and landscaping is completed and within 12 months of the issue of the permit, the owner must arrange for Council's Planning Compliance Officer and Coastal Planner to attend the site and inspect the works and revegetation.

Engineering

17. After the endorsement of Condition 1 plans and before any works associated with the development starts, a signed and completed 'Checklist for Development Engineering Plan Approval' along with engineering plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. The plans must be drawn to scale with dimensions and shall be emailed to devengadmin@mornpen.vic.gov.au in pdf format.

The plans must show:

a) All areas of the development being drained by means of an underground drainage system with discharge to the Western Port Marina.

b) Reinforced concrete surfacing to the boat storage area and boat ramp access and turning area.

c) A drainage system on the site being designed to ensure storm water runoff exiting the new development meets the current best practice performance objectives for stormwater quality, as contained in the Urban Stormwater Best Practice Environmental Management Guidelines (Victorian Stormwater Committee, 1999).

18. Before the approval of engineering plans, drainage computations and documentation are required for:

    a) The proposed drainage system.

    b) The consideration of any drainage catchment external to the development that may drain to the proposed drainage system.

    c) A MUSIC Report.

19. Prior to the approval of engineering plans, the applicant must:

    a) Demonstrate to the Responsible Authority that water quality features will be implemented in accordance with clause 53.18 of the planning scheme.

Drainage Works

20. Before the initial occupation of the new development, all drainage works associated with the new development must be constructed in accordance with approved engineering plans, and to the satisfaction of the Responsible Authority.

21. The owner must operate and maintain the drainage works including any on-site stormwater treatment system at their own cost and must allow the system to be inspected by an authorised officer of the Responsible Authority from time to time. The owner must not modify any on-site stormwater treatment system without prior written approval from the Responsible Authority.

Vehicle Access

22. Before the initial occupation of the new development, all driveways and vehicle turning areas as shown on the endorsed plans must be constructed in accordance with approved engineering plans, surfaced with reinforced concrete, and drained to the satisfaction of the Responsible Authority.

Expiry

23. This permit will expire if the development is not completed within four years of the date of this permit.

In accordance with Section 69 of the *Planning and Environment Act 1987*, an application may be submitted to the Responsible Authority for an extension of the periods referred to in this condition.

Charlotte McGillivray **Senior Planner**	Daniel Balkin - Team Leader
Delegate Approved:	26/03/2024

Appendix A: Site Photos – 4 April 2024

Location of photographs:

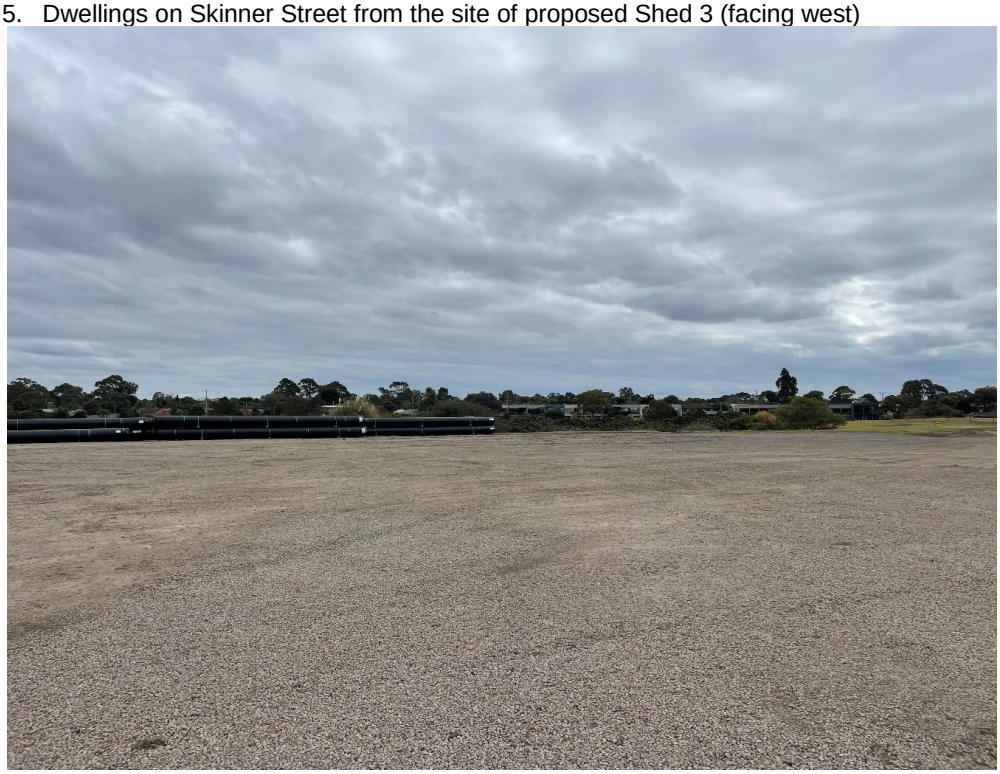
1. Existing building and gravel area (facing east)

2. Existing gravel area (facing south)

3. Existing gravel accessway (facing south-east)

4. Existing gravel accessway looking across the mangroves (facing south)

5. Dwellings on Skinner Street from the site of proposed Shed 3 (facing west)

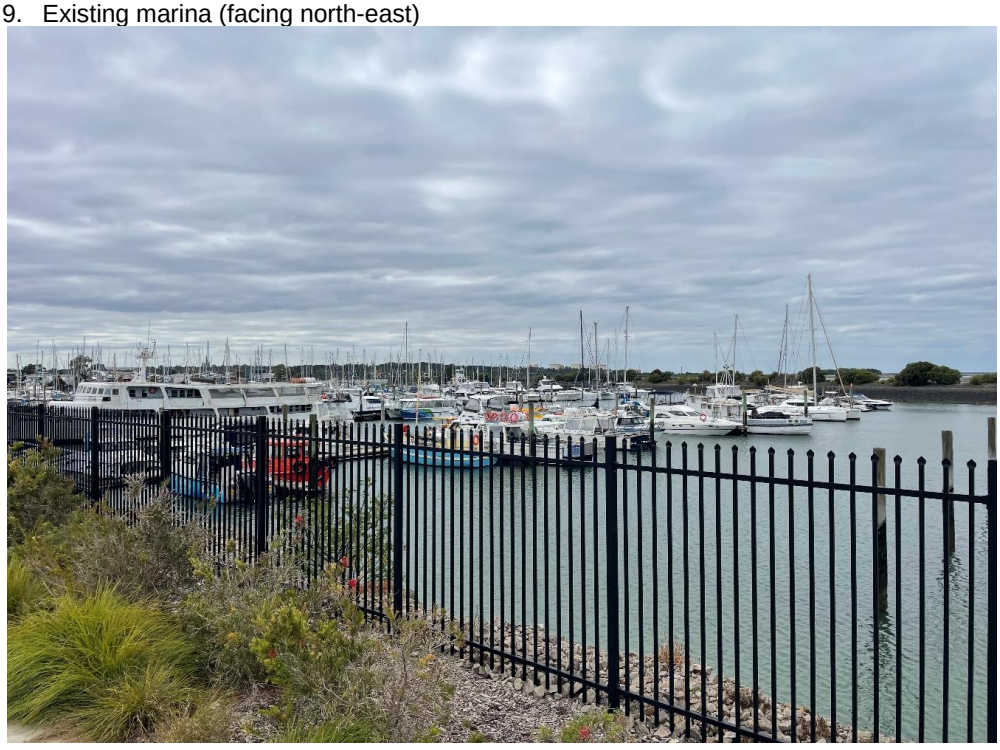


6. Existing gravel area (facing north)

7. Existing marina, breakwater in the distance (facing south-east)

8. Existing footpath and retaining wall (facing south)

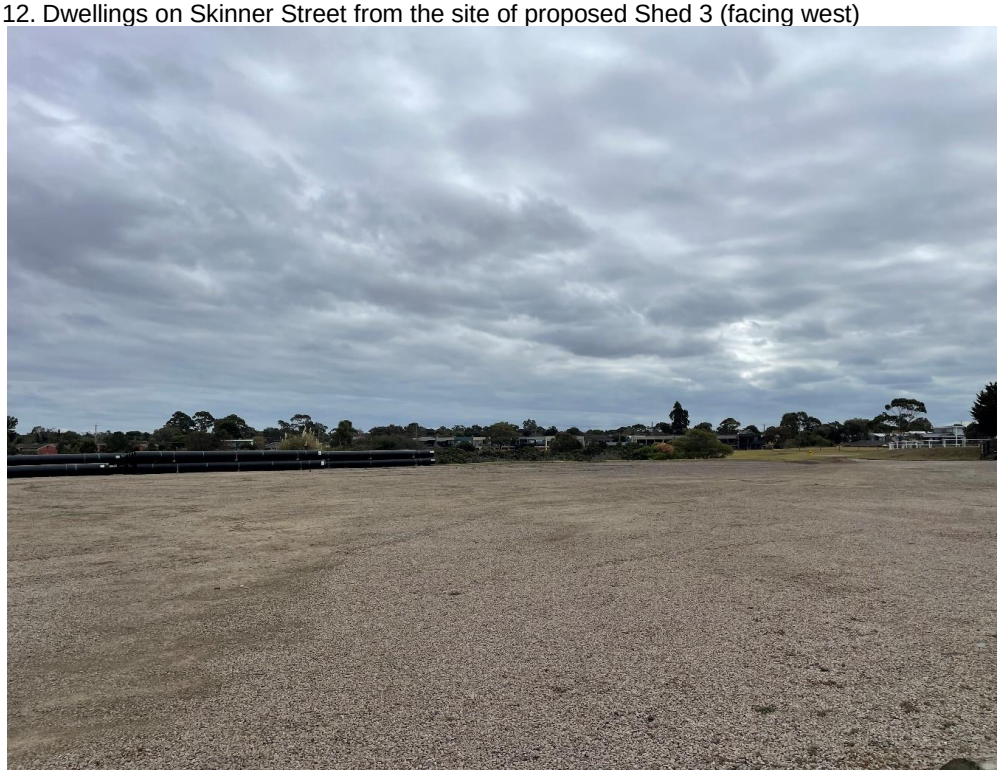
9. Existing marina (facing north-east)



10. Existing marina, breakwater in the distance (facing south-east)

11. Existing gravel area (facing south-west)

12. Dwellings on Skinner Street from the site of proposed Shed 3 (facing west)



13. Existing gate to the south of the proposed works, facing mangroves to the south

14. Dwellings on Skinner Street from the site of proposed boat ramp (facing north-west)

15. Existing marina and site of proposed works from the reserve (facing east)

16. Site of proposed works in the distance from Skinner Street (facing east)

17. Site of proposed works in the distance from Skinner Street (facing east)

VICTORIA PLANNING PROVISIONS

44.04 LAND SUBJECT TO INUNDATION OVERLAY

06/09/2021
VC171

Shown on the planning scheme map as **LSIO** with a number (if shown).

Purpose

To implement the Municipal Planning Strategy and the Planning Policy Framework.

To identify flood prone land in a riverine or coastal area affected by the 1 in 100 (1 per cent Annual Exceedance Probability) year flood or any other area determined by the floodplain management authority.

To ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, responds to the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity.

To minimise the potential flood risk to life, health and safety associated with development.

To reflect a declaration under Division 4 of Part 10 of the *Water Act, 1989* .

To protect water quality and waterways as natural resources by managing urban stormwater, protecting water supply catchment areas, and managing saline discharges to minimise the risks to the environmental quality of water and groundwater.

To ensure that development maintains or improves river, marine, coastal and wetland health, waterway protection and floodplain health.

44.04-1 Land subject to inundation objectives and statement of risk

24/01/2020
VC160

A schedule to this overlay may contain:

- Land subject to inundation management objectives to be achieved.
- A statement of risk.

44.04-2 Buildings and works

14/12/2023
VC253

A permit is required to construct a building or to construct or carry out works, including:

- A fence.
- Roadworks, if the water flow path is redirected or obstructed.
- Bicycle pathways and trails.
- Public toilets.
- A domestic swimming pool or spa and associated mechanical and safety equipment if associated with one dwelling on a lot.
- Rainwater tank with a capacity of not more than 10,000 litres.
- A pergola or verandah, including an open-sided pergola or verandah to a dwelling or a small second dwelling with a finished floor level not more than 800mm above ground level and a maximum building height of 3 metres above ground level.
- A deck, including a deck to a dwelling or a small second dwelling with a finished floor level not more than 800mm above ground level.
- A disabled access ramp.

This does not apply:

- If a schedule to this overlay specifically states that a permit is not required.
- To roadworks or bicycle paths and trails constructed or carried out by or on behalf of the Head, Transport for Victoria, to the satisfaction of the relevant floodplain management authority.

- To flood mitigation works carried out by the responsible authority or floodplain management authority.
- To the following works in accordance with plans prepared to the satisfaction of the responsible authority:
  - The laying of underground sewerage, water and gas mains, oil pipelines, underground telephone lines and underground power lines provided they do not alter the topography of the land.
  - The erection of telephone or power lines provided they do not involve the construction of towers or poles.
- To post and wire and post and rail fencing.

44.04-3 Subdivision

31/07/2018
VC148

A permit is required to subdivide land.

44.04-4 Application requirements

31/07/2018
VC148

An application must be accompanied by any information specified in a schedule to this overlay.

44.04-5 Local floodplain development plan

31/07/2018
VC148

If a local floodplain development plan has been developed for the area and has been incorporated into this scheme, an application must be consistent with the plan.

44.04-6 Exemption from notice and review

31/07/2018
VC148

An application under this overlay 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.

44.04-7 Referral of applications

31/07/2018
VC148

An application must be referred to the relevant floodplain management authority under Section 55 of the Act unless in the opinion of the responsible authority, the proposal satisfies requirements or conditions previously agreed in writing between the responsible authority and the floodplain management authority.

44.04-8 Decision guidelines

06/09/2021
VC171

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

- The Municipal Planning Strategy and the Planning Policy Framework.
- Any local floodplain development plan.
- Any comments from the relevant floodplain management authority.
- The existing use and development of the land.
- Whether the proposed use or development could be located on flood-free land or land with a lesser flood hazard outside this overlay.
- Alternative design or flood proofing responses.
- The susceptibility of the development to flooding and flood damage.
- The potential flood risk to life, health and safety associated with the development. Flood risk factors to consider include:
  - The frequency, duration, extent, depth and velocity of flooding of the site and accessway.
  - The flood warning time available.
  - Tidal patterns.

  - Coastal inundation and erosion.
  - The danger to the occupants of the development, other floodplain residents and emergency personnel if the site or accessway is flooded.
- The effect of the development on redirecting or obstructing floodwater, stormwater or drainage water and the effect of the development on reducing flood storage and increasing flood levels and flow velocities.
- The effect of the development on river, marine and coastal health values including wetlands, natural habitat, stream stability, erosion, environmental flows, water quality, estuaries and sites of scientific significance.
- Any other matters specified in a schedule to this overlay.

MORNINGTON PENINSULA PLANNING SCHEME

09/01/2025
C271morn

SCHEDULE 4 TO CLAUSE 44.04 LAND SUBJECT TO INUNDATION OVERLAY

Shown on the planning scheme map as **LSIO4** .

WESTERN PORT BAY COASTLINE - PUBLIC USE ZONE AND PORT ZONE

1.0 Land subject to inundation objectives to be achieved

09/01/2025
C271morn

- To protect land vulnerable to coastal inundation from inappropriate development.
- To identify at risk areas and plan for sea-level rise of not less than 0.8 metres by 2100.
- To plan for projected sea level rises to ensure that the community and assets are not exposed to an unacceptable level of risk associated with the coastal impacts of climate change.
- To ensure new development is designed to respond appropriately to the identified flood hazard.

2.0 Statement of risk

09/01/2025
C271morn

Land along Western Port Bay has been identified as at risk of natural process impacts of climate change including potential hazards associated with coastal erosion, flooding, sea level rise and storm surge. Areas of coastal inundation and hazard have been identified by the *Western Port Local Coastal Hazard Assessment (Water Technology, 2014)* which has provided the mapping for this overlay.

3.0 Permit requirement

09/01/2025
C271morn

A permit is not required to construct a building or construct or carry out works for any of the following:

- An extension to an existing building, provided the proposed floor level is at or above the highest point of the existing floor level and the gross floor area of the extension does not exceed 20 square metres.
- A deck or verandah associated with an existing building with a floor area no greater than 20 square metres.
- A footpath and bicycle path constructed at ground level.
- An elevated boardwalk, provided that the new surface levels of the boardwalk are above the applicable flood levels set by the relevant floodplain management authority.
- An upper storey extension to an existing building within the existing building footprint.
- An open building with no walls.
- A replacement fence of the same material as the existing fence, in the same location.
- A tennis court or other sports ground at natural ground level.
- A radio mast, telecommunications tower, antenna, power pole or light pole.
- A non-domestic disabled access ramp.
- An outdoor advertising sign/structure, provided that it does not alter flows or floodplain storage capacity.
- A building or works associated with park management and maintenance (such as asset repairs or upgrades and pest plant and animal control) undertaken by or on behalf of Parks Victoria under the *National Parks Act (1975)* or *Crown Land Reserves Act (1978)* or *Parks Victoria Act (2018)* .
- A building or works carried out by or on behalf of a public land manager under the *Crown Land Reserves Act (1978), National Parks Act (1975)* or *Parks Victoria Act (2018)* where consent has been obtained under the *Marine and Coastal Act (2018).*

- A Building or works carried out by or on behalf of the Port of Hastings Corporation under the *Port Management Act (1995)* on land in a Port Zone or Public Land Zone.

4.0
09/01/2025
C271morn

Application requirements

The following application requirements apply to an application for a permit under Clause 44.04, in addition to those specified under Clause 44.04 and elsewhere in the scheme and must accompany an application, as appropriate, to the satisfaction of the responsible authority:

- A Coastal Hazard Vulnerability Assessment (CHVA) prepared by a suitably qualified coastal engineer or coastal processes using a risk management framework in accordance with *AS 5334-2013: Climate Change Adaptation for Settlements and Infrastructure* and *ISO 3100:2018 - Risk Management Guidelines* . The CHVA must:
  - Consider factors including sea level rise and its associated natural hazards
  - Consider the implications of coastal processes on the development
  - Consider the implications of the development on existing development and coastal processes
  - Apply the precautionary principle and use best available data in its approach
  - Classify the risk of the development using a risk management framework
- Where development is classed as medium risk or higher, the CHVA must:
  - Include a peer review prepared by a suitably qualified coastal engineer or coastal processes specialist, as selected in agreement with the Responsible Authority
  - Address the outcomes of the peer review.

5.0
09/01/2025
C271morn

Decision guidelines

The following decision guidelines apply to an application for a permit under Clause 44.04, in addition to those specified in Clause 44.04 and elsewhere in the scheme which must be considered, as appropriate, by the responsible authority:

- Whether new development is designed appropriately to respond to the identified flood hazard.
- Any guidelines for developing a coastal hazard vulnerability assessment issued by the Department of Energy, Environment and Climate Action, Department of Transport and Planning or the Melbourne Water Corportation.

VICTORIA PLANNING PROVISIONS

42.03 SIGNIFICANT LANDSCAPE OVERLAY

31/07/2018
VC148

Shown on the planning scheme map as **SLO** with a number.

Purpose

To implement the Municipal Planning Strategy and the Planning Policy Framework.

To identify significant landscapes.

To conserve and enhance the character of significant landscapes.

42.03-1 Landscape character and objectives

31/07/2018
VC148

A schedule to this overlay must contain:

- A statement of the nature and key elements of the landscape.
- The landscape character objectives to be achieved.

42.03-2 Permit requirement

14/12/2023
VC253

A permit is required to:

- Construct a building or construct or carry out works. This does not apply:
  - If a schedule to this overlay specifically states that a permit is not required.
  - To the conduct of agricultural activities including ploughing and fencing (but not the construction of dams) unless a specific requirement for that activity is specified in a schedule to this overlay.
- Construct a fence if specified in the schedule to this overlay.
- Remove, destroy or lop any vegetation specified in a schedule to this overlay. This does not apply:
  - If the table to Clause 42.03-3 specifically states that a permit is not required.
  - To the removal, destruction or lopping of native vegetation in accordance with a native vegetation precinct plan specified in the schedule to Clause 52.16.

VicSmart applications

Subject to Clause 71.06, an application under this clause for a development specified in Column 1 is a class of VicSmart application and must be assessed against the provision specified in Column 2.

Class of application	Information requirements and decision guidelines
Construct a fence.	Clause 59.05
Remove, destroy or lop one tree provided: ▪ A permit has not been granted for a VicSmart application to remove, destroy or lop a tree on the same land within the last 12 months. ▪ There is no other current VicSmart application to remove, destroy or lop a tree on the same land.	Clause 59.06
Construct a building or construct or carry out works for: ▪ A carport, garage, pergola, verandah, deck, shed or similar structure.	Clause 59.05

Class of application	Information requirements and decision guidelines
▪ A rainwater tank. The buildings and works must be associated with a dwelling.	
Construct a building or construct or carry out works for a small second dwelling.	Clause 59.05

42.03-3
16/08/2024
VC262

Table of exemptions

The requirement to obtain a permit does not apply to:	
Emergency works	Vegetation that is to be removed, destroyed or lopped: ▪ in an emergency by, or on behalf of, a public authority or municipal council to create an emergency access or to enable emergency works; or ▪ where it presents an immediate risk of personal injury or damage to property. Only that part of the vegetation that presents the immediate risk may be removed, destroyed or lopped under this exemption.
Extractive industry	Vegetation that is to be removed, destroyed or lopped to the minimum extent necessary to enable the carrying out of extractive industry in accordance with a work plan approved under the *Mineral Resources (Sustainable Development) Act 1990* and authorised by a work authority granted under that Act.

VICTORIA PLANNING PROVISIONS

The requirement to obtain a permit does not apply to:	
Fire protection	Vegetation that is to be removed, destroyed or lopped to the minimum extent necessary to enable the carrying out of any of the following fire protection activities: ▪ fire fighting; ▪ planned burning; ▪ making or maintaining of a fuelbreak or fire fighting access track (or any combination thereof) that does not exceed a combined width of 6 metres; ▪ making of strategic fuelbreak up to 40 metres wide by, or on behalf of, a public authority in accordance with a strategic fuelbreak plan approved by the Secretary to the Department of Environment, Land, Water and Planning (as constituted under Part 2 of the *Conservation, Forests and Lands Act 1987*); ▪ is ground fuel within 30 metres of a building and is vegetation other than native vegetation; ▪ in accordance with a fire prevention notice issued under either: – section 87 of the *Fire Rescue Victoria Act 1958* ; – section 65 of the *Forests Act 1958* ; or – section 41 of the *Country Fire Authority Act 1958* . ▪ keeping vegetation clear of, or minimising the risk of bushfire ignition from, an electric line in accordance with a code of practice prepared under Part 8 of the *Electricity Safety Act 1998* ; ▪ minimising the risk to life and property from bushfire of a roadside of a public road managed by the relevant responsible road authority, and carried out by or on behalf of that authority, in accordance with the written agreement of the Secretary to the Department of Environment, Land, Water and Planning (as constituted under Part 2 of the *Conservation, Forests and Lands Act 1987*). In this exemption, roadside, public road and responsible road authority have the same meanings as in section 3 of the *Road Management Act 2004* . *Note: Additional permit exemptions for bushfire protection are provided at Clause 52.12.*
Geothermal energy exploration and extraction	Vegetation that is to be removed, destroyed or lopped to the minimum extent necessary in accordance with operation plan approved under the *Geothermal Energy Resources Act 2005* .
Greenhouse gas sequestration and exploration	Vegetation that is to be removed, destroyed or lopped to the minimum extent necessary in accordance with an operation plan approved under the *Greenhouse Gas Geological Sequestration Act 2008* .
Land management or directions notice	Vegetation that is to be removed, destroyed or lopped to the minimum extent necessary to comply with a land management notice or directions notice served under the *Catchment and Land Protection Act 1994* .
Land use conditions	Vegetation that is to be removed, destroyed or lopped to the minimum extent necessary to comply with a land use condition served under the *Catchment and Land Protection Act 1994* .
Mineral exploration and extraction	Vegetation that is to be removed, destroyed or lopped to the minimum extent necessary by the holder of an exploration, mining, prospecting, or retention licence issued under the *Mineral Resources (Sustainable Development) Act 1990* : ▪ that is low impact exploration within the meaning of Schedule 4A of the *Mineral Resources (Sustainable Development) Act 1990* ; or

VICTORIA PLANNING PROVISIONS

The requirement to obtain a permit does not apply to:	
	▪ in accordance with a work plan approved under Part 3 of the *Mineral Resources (Sustainable Development) Act 1990* . *Note: Schedule 4A of the Mineral Resources (Sustainable Development) Act 1990 specifies limits on the extent of native vegetation that may be removed as part of low impact exploration.*
Noxious weeds	Vegetation that is a noxious weed subject of a declaration under section 58 or section 58A of the *Catchment and Land Protection Act 1994* . This exemption does not apply to Australian Dodder (*Cuscuta australis*).
Pest animal burrows	Vegetation that is to be removed, destroyed or lopped to the minimum extent necessary to enable the removal of pest animal burrows. In the case of native vegetation the written agreement of an officer of the department responsible for administering the *Flora and Fauna Guarantee Act 1988* is required before the vegetation can be removed, destroyed or lopped.
Planted vegetation	Vegetation that is to be removed, destroyed or lopped that was either planted or grown as a result of direct seeding for Crop raising or Grazing animal production.
Railways	Vegetation that is to be removed, destroyed or lopped to the minimum extent necessary to maintain the safe and efficient function of an existing railway, or railway access road, in accordance with the written agreement of the Secretary to the Department of Environment, Land, Water and Planning (as constituted under Part 2 of the *Conservation, Forests and Lands Act 1987*).
Regrowth	Vegetation that is to be removed, destroyed or lopped that has naturally established or regenerated on land lawfully cleared of naturally established vegetation, and is ▪ bracken (*Pteridium esculentum*); or ▪ within the boundary of a timber production plantation, as indicated on a Plantation Development Notice or other documented record, and has established after the plantation. This exemption does not apply to land on which vegetation has been destroyed or otherwise damaged as a result of flood, fire or other natural disaster.
Road safety	Vegetation that is to be removed, destroyed or lopped to the minimum extent necessary by and on behalf of a public authority or municipal council to maintain the safe and efficient function of an existing public road in accordance with written agreement of the Secretary of the Department of Environment, Land, Water and Planning (as constituted under Part 2 of the *Conservation, Forests and Lands Act 1987*).
Stone exploration	Vegetation that is to be removed, destroyed or lopped to the minimum extent necessary to enable the carrying out of Stone exploration. The maximum extent of vegetation removed, destroyed or lopped under this exemption on contiguous land in the same ownership in a five year period must not exceed any of the following: ▪ 1 hectare of vegetation which does not include a tree. ▪ 15 trees with a trunk diameter of less than 40 centimetres at a height of 1.3 metres above ground level. ▪ 5 trees with a trunk diameter of 40 centimetres or more at a height of 1.3 metres above ground level. This exemption does not apply to costeaning and bulk sampling activities.

The requirement to obtain a permit does not apply to:	
Surveying	Vegetation that is to be removed, destroyed or lopped to the minimum extent necessary by, or on behalf of, a licenced surveyor (within the meaning of section 3 of the *Surveying Act 2004*) using hand-held tools to establish a sightline for the measurement of land.
Traditional owners	Vegetation that is to be removed, destroyed or lopped by a person acting under, and in accordance with: ▪ a natural resources agreement under Part 6 of the *Traditional Owners Settlement Act 2010* ; or ▪ an authorisation order made under sections 82 or 84 of the *Traditional Owner Settlement Act 2010* as those sections were in force immediately before the commencement of section 24 of the *Traditional owners Settlement Amendment Act* in 2016 (1 May 2017).
Tram stops	Vegetation that is to be removed, destroyed or lopped to the minimum extent necessary by or on behalf of the Head, Transport for Victoria to construct a tram stop, including a tram stop shelter.
Transport land	Vegetation that is to be removed, destroyed or lopped to the minimum extent necessary by or on behalf of the Head, Transport for Victoria on land in a Transport Zone, or in a Public Acquisition Overlay if the Head, Transport for Victoria is the acquiring authority, to construct or maintain transport system infrastructure.

42.03-4 Application requirements

31/07/2018
VC148

An application must be accompanied by any information specified in a schedule to this overlay.

42.03-5 Decision guidelines

31/07/2018
VC148

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

- The Municipal Planning Strategy and the Planning Policy Framework.
- The statement of the nature and key elements of the landscape and the landscape character objective contained in a schedule to this overlay.
- The conservation and enhancement of the landscape values of the area.
- The need to remove, destroy or lop vegetation to create a defendable space to reduce the risk of bushfire to life and property.
- The impact of the proposed buildings and works on the landscape due to height, bulk, colour, general appearance or the need to remove vegetation.
- The extent to which the buildings and works are designed to enhance or promote the landscape character objectives of the area.
- The impact of buildings and works on significant views.
- Any other matters specified in a schedule to this overlay.

09/01/2025
C271morn

SCHEDULE 2 TO CLAUSE 42.03 SIGNIFICANT LANDSCAPE OVERLAY

Shown on the planning scheme map as **SLO2.**

COASTAL AND FORESHORE LANDSCAPE

1.0 Statement of nature and key elements of landscape

09/01/2025
C271morn

Coastlines and coastal hinterland areas have been identified as key landscape features. These areas have an open rural character, and are often cleared, with a history of broad scale grazing. They act as a landscape foreground to coastlines and seascapes, with transitional areas ranging from extensive dune and beach areas to abrupt high basalt and limestone cliffs. The open landscape character makes these areas susceptible to visual intrusion from inappropriate development and the use of landscaping to screen buildings and works must be balanced with maintaining extensive viewlines.

Foreshore areas are set within a distinctive landscape characterised by the presence of indigenous vegetation, costal shrubs and undulating dunes. Undeveloped open space coupled with indigenous vegetation and coastal shrub remain important features of foreshore areas

2.0 Landscape character objectives to be achieved

09/01/2025
C271morn

- To protect and enhance the visual, natural and cultural heritage values of coastal and foreshore landscapes.
- To protect coastal and foreshore landscapes from visual intrusion resulting from the inappropriate siting, design or materials of buildings and works, including infrastructure service lines.
- To encourage siting, design and landscaping of buildings and works that is responsive to the coastal and foreshore landscape character, including the use of natural materials and muted colours to reflect the coastal setting.
- To maintain and enhance vegetation and landscape setting as an important element of coastal and foreshore landscapes, including the use of vegetation buffers adjacent coastal reserves and alongside public thoroughfares.
- To ensure new development positively responds to the coastal settings and to the threats of coastal hazards including erosion and inundation.

3.0 Permit requirement

09/01/2025
C271morn

- A permit is not required for buildings and works associated with a Section 1 use in the Green Wedge zone, Special Use Zone or Public Use Zone, provided the following requirements are met:
  - The floor area of any building does not exceed 40 square metres.
  - Any building or other structure does not exceed a height of 6 metres above natural ground level.
  - Any building or other structure is set back more than 20 metres from the ridge line and its highest point does not protrude above the ridge line.
  - All external cladding of buildings and structures, including roofing, which is visible from any other property, roadway or public space, including to the water, is painted or finished in low reflective (40 per cent LRV or less) or, where the building is an extension to an existing building and the existing floor area is not being increased by more than 25 per cent, the colours of the external cladding and roof matches that of the existing building.
  - Any stock loading facility is set back more than 10 metres from a road frontage.
- A permit is required to remove, destroy or lop native vegetation. This does not apply to removal of vegetation specified in the schedule to Clause 52.17.

4.0 Application requirements

09/01/2025
C271morn

The following application requirements apply to an application for a permit under Clause 42.03, in addition to those specified elsewhere in the scheme and must accompany an application, as appropriate, to the satisfaction of the responsible authority:

- An arboricultural report prepared by a suitably qualified and experienced arborist, assessing any substantial tree with a Tree Protection Zone within the works footprint.
- A landscape impact assessment report, prepared by a suitably qualified and experienced person.
- A site plan (drawn to scale) including but not limited to:
  - The location of buildings and works including but not limited to driveways, batters, trenches and underground services and effluent disposal systems.
  - Dimensions of any existing or proposed building envelope.
  - The location, type and extent of indigenous vegetation on site.
  - Accurate and detailed existing and proposed site levels.
  - Cross sections to illustrate the extent of cut and fill.
  - Details of retaining walls including height, materials and if required drainage.

An application to remove, destroy or lop vegetation must be accompanied by the following information as appropriate.

- An arborist report for any trees to be removed.
- An assessment of the visual impact of the removal of vegetation on adjoining properties and from roads and other public places.

5.0 Decision guidelines

09/01/2025
C271morn

The following decision guidelines apply to an application for a permit under Clause 42.03, in addition to those specified in Clause 42.03 and elsewhere in the scheme which must be considered, as appropriate, by the responsible authority:

- The landscape character objectives of this schedule.
- The protection and appropriate enhancement of the landscape, having regard to:
  - Protecting landscape areas and vantage points of high quality.
  - Maintaining visual sequences along access routes.
  - The conservation of significant areas of natural vegetation and significant stands of trees in coastal landscapes.
  - The control of the density of buildings and subdivision in areas of scenic value
- Whether the siting, height, scale, materials and form of proposed buildings and works, including infrastructure service lines, has been designed to have least visual effect on the coastal landscape and scenic views.
- Whether approval of the proposed buildings and works is compatible with maintaining the visual, natural and cultural heritage significance of the coastal landscape.
- The availability of reasonable alternative sites, alternative building designs or alternative construction practices for proposed buildings and works that would better meet landscape character objectives of this schedule, having regard to the size and topography of the land and the form and nature of the proposed buildings and works.
- The availability of reasonable alternative routes, alternative designs or alternative forms of installation for infrastructure service lines that would better meet landscape character

objectives of this schedule.

- The benefit of permit conditions requiring all building materials to be non-reflective and of colours which are complementary to those of natural landscape.
- The benefit of conditions requiring the landscaping of buildings and works, while also having regard to the maintenance of existing viewlines and the open landscape character of some areas of the coastal hinterland.
- Whether the proposal incorporates natural materials and muted colours that reflect the coastal setting.

Features

1. **Bowl – Round Pocket**
   1.65m (5.5ft) deep, with 2.4m (8ft) transition radius
2. **Bowl – Square Pocket**
   1.65m (5.5ft) deep, with 2.4m (8ft) transition radius
3. **Waterfall**
   1.5m (5ft) high, with 2.85m (9.5ft) transition radius
4. **Bowl – Deep End**
   3.15m (10.5ft) deep, with 2.85m (9.5ft) transition radius and 0.3m (1ft) vert
5. **Bowled Mini-Ramp**
   0.9m (3ft) deep, with 1.95m (6.5ft) transition radius
6. **Quarter Pipe**
   0.9m (3ft) high, with 1.95m (6.5ft) transition radius
7. **Quarter Pipe Extension**
   1.35m (4.5ft) high, with 1.95m (6.5ft) transition radius
8. **Grindable Bank**
   0.75m (2.5ft) high, 40° pitch, with stencil brick pattern texture
9. **Manual Pad**
   0.15m (0.5ft) high, 3.6m (12ft) long
10. **Flat Rail**
    0.375m (1.25ft) high, 3.6m (12ft) long, with “wallie” end
11. **Grind Block / Ledge**
    0.3m (1ft) high, 3.6m (12ft) long
12. **Flat Bank to Ledge**
    0.75m (2.5ft) high bank, 20° pitch, with 0.15m (0.5ft) high ledge
13. **Flat Bank to Kerb Slider**
    0.9m (3ft) high bank, 25° pitch with 0.225m (0.75ft) high kerb slider
14. **Flat Bank**
    0.9m (3ft) high bank, 36° pitch
15. **Access Stairs**
16. **Sheltered Seating / Spectator Area**
    0.45m (1.5ft) high terraced edge, with seating block, shelter and benches
17. **Relocated Existing Seating**

RYE

Skatepark Upgrade

Concept Design - Stage 1 - Site Plan

June 2024

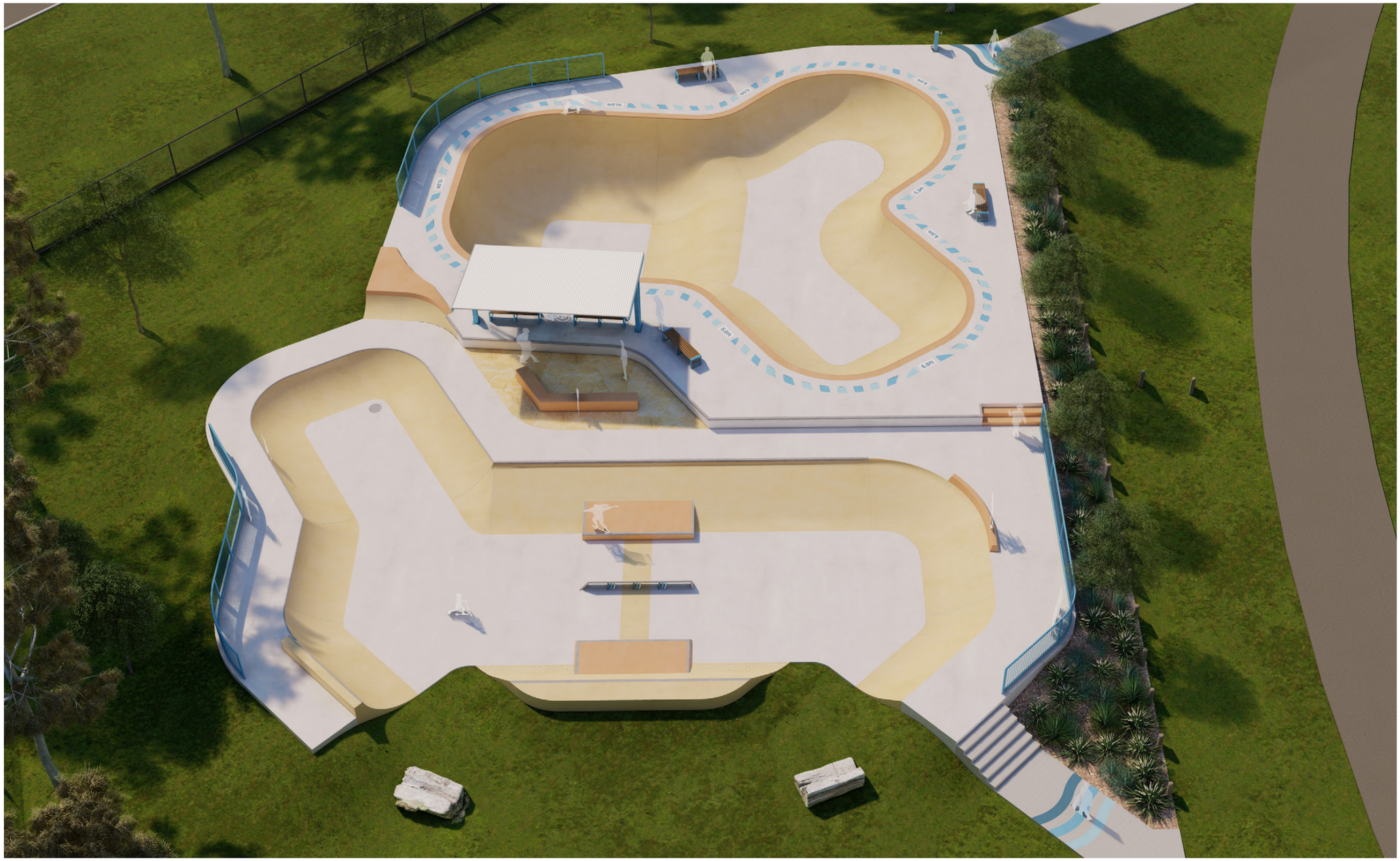
1:200 @A3

0m 1m 5m 10m

N

MORNINGTON PENINSULA Shire

PLACE



Skatepark Upgrade

Concept Design - Stage 1 - 3D Visualisation 1

June 2024

RYE

Skatepark Upgrade

Concept Design - Stage 1 - 3D Visualisation 2

June 2024

MORNINGTON PENINSULA Shire

PLACE

Skatepark Upgrade

Concept Design - Stage 1 - 3D Visualisation 3

June 2024

Skatepark Upgrade

Concept Design - Stage 1 - 3D Visualisation 4

June 2024

RYE

Skatepark Upgrade

Concept Design - Stage 1 - 3D Visualisation 5

June 2024

MORNINGTON PENINSULA Shire

PLACE

RYE

Skatepark Upgrade

Concept Design - Stage 1 - 3D Visualisation 6

June 2024

MORNINGTON PENINSULA Shire

PLACE

Features

Stage 1

1. **Skatepark Upgrade - Bowl**
New 3-pocket skatepark bowl with square pocket 1.65m (5.5ft) deep, round pocket 1.65m (5.5ft) deep, waterfall to deep end 3.15m (10.5ft) deep, and varying rounded hips. The bowl design has been developed following consultation with the skatepark advisory group, creating a bowl that is accessible and usable for less experienced riders, whilst providing opportunities and interest for more advanced users.

2. **Skatepark Upgrade - Street**
New skatepark street section with manual pad, kerb slider, flat rail, blocks, and lower level banks & transitions developed to expand the use of the skatepark for a wider range of users.

3. **Skatepark Upgrade - Mini-Ramp**
New skatepark bowled mini-ramp section, 0.90m (3ft) deep to provide opportunity for less experienced users to learn how to ride transitions before progressing to the bowl.

4. **Social Seating & Amenities**
Sheltered terraced seating area located to provide spectator views for the bowl, street section, and mini-ramp. New drink fountain to be installed at skatepark access point, with additional seating opportunities around the bowl platform.

Stage 2

5. **Skatepark Lighting**
Sports level lighting to skatepark for evening use.

6. **Shared Social Space**
Central sheltered seating, bike racks, and bins provide a social spectator / refuge space between the skatepark and playspace. A central path provides access between the gated site access and oval.

7. **Playspace Upgrade**
New playspace elements including 3-bay swing set, combination unit with various climbing opportunities and slides, and accessible carousel. Softfall rubber surfacing included to increase usability and accessibility to play elements.

8. **Accessible Car Parking**
Opportunity to formalise car parking adjacent to the skatepark and playspace to improve accessibility.

RYE

Skatepark Upgrade

Concept Design - Stage 1 & 2 - Site Plan

June 2024

1:250 @A3

0m 5m 10m

N

MORNINGTON PENINSULA Shire

PLACE

Discussion

Stage 1

Stage 1 prioritises the upgrade to the skatepark, maximising the footprint of skateable surfaces. Amenities including a shelter, bench seating, and drink fountain are also included in this stage.

Stage 2

Stage 2 focuses on the upgrade of the playspace, lighting for the skatepark, and provides additional access and amenities throughout the site.

Legend

Stage 1

Stage 2

RYE

Skatepark Upgrade

Concept Design - Stage 1 & 2 - Staging Plan

June 2024

1:250 @A3

0m 5m 10m

N

MORNINGTON PENINSULA Shire

PLACE

Discussion

Following discussion with the Council Arborist and Natural Systems team, the following has been established:

Tree 14 - Black Poplar – This tree has potential to be removed. As an introduced species, it has little to no retention value from a biodiversity perspective, and has very little landscape value. The revised skatepark layout has a lower impact on this tree than the previous design, so removal may not be required. To be confirmed during the detail design phase of the project.

Tree 15 - Drooping Sheoak - This species is indigenous to the site, is mature and, with a DBH of 65cm, it is classified as a large tree under the Native Vegetation Regulations, it has a very high retention value from a biodiversity perspective. It is recommended that this tree is prioritised for retention.

Trees 16-20 - Coast Tea Trees – This species is indigenous to the site. They provide good habitat value. Given their size/ age (mostly small and young), structure and health, they are of relatively low retention value from a biodiversity perspective. Trees 16 & 18 are proposed to be removed.

Trees 9-11 - Drooping Sheoak – These are of high retention value from a biodiversity perspective. Whilst tree 8 appears to be impacted by the skatepark design, it is no more than the existing skatepark layout.

Trees 23 and 24 - Moonahs – Due to their age, size, habitat value and site indigenous status these trees are of very high retention value from a biodiversity perspective, and protection of these trees in project design, construction and use is a priority.

Offset tree planting will be developed as part of the detail design phase of the project, ensuring there is approval from the Council Arborist and Natural Systems team.

Legend

- Garden Bed
- Concrete Paving
- Shelter
- Skatepark - Bank / Transition
- Softfall Mulch
- Softfall Rubber

RYE

Skatepark Upgrade

Concept Design - Tree Protection Plan

June 2024

1:250 @A3

0m 5m 10m

N

MORNINGTON PENINSULA Shire

PLACE

- **Public Exhibition of the Rye Skate Park Upgrade Project Draft Concept and Associated Report**

- Council endorsed the draft Rye Skate Park Upgrade Concept and Associated Report for placement on public exhibition at the Council Meeting held on 6 August 2024.

- The public exhibition of the draft Rye Skate Park Upgrade Concept and Associated Report commenced on 7 August 2024 and concluded on 4 September 2024. The plans were available for the community to view and to provide comment in the following ways:

1. Information and a copy of the plan was available on Council's 'Shape our future" webpage advising the community of the draft plan and accompanying 3D renders and inviting feedback.
2. 2 pop-up consultations were held throughout the public exhibition period and advertised via Council's social media channels. These were held at the Rosebud Skate Park and Rye Town Centre.
3. Facebook posts on Shire website inviting community to give feedback.

-

- A total of 109 submissions were received, which comprised of 107 online surveys and 2 written surveys.

- Out of these surveys, 105 submitters provided a rating of the skate park design, with 85 rating it positively as either very good (58) or good (27).

- 95 submitters provided a rating for the play space design, with 75 rating it positively as either very good (47) or good (28),

-

- The following table includes a synopsis of the submissions received, and discussion which addresses some of the written suggestions and feedback received.

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- **Summary of Public Exhibition Feedback Received on the Rye Skate Park Upgrade Draft Concept Plan and Associated Report**

Submission	**Ratings Summary**	
109 Submissions	The consultation survey asked respondents to rate the skate park design as seen on the draft concept. Results are as follows: Very Bad - 3 Bad - 4 Neutral - 13 Good - 27 Very Good - 58 No Response - 4	6.7% negative 93.3% positive
	The consultation survey asked respondents to rate the play space design as seen on the draft concept. Results are as follows: Very Bad - 4 Bad - 4 Neutral - 12 Good – 28 Very Good – 47 No Response - 14	8.4% negative 91.6% positive
Submission	**Written Feedback from Submitter**	**Discussion / Recommendation to amend the draft masterplan**
72 Submissions	72 responses expressed their full support of the proposed masterplan.	**No Action Required.**
Feedback Theme – Bowl	Respondents commented that the existing bowl at Rye Skate Park is too advanced for many users and suggested further simplification of the bowl design, or the omission of the bowl from the design as not many skaters will utilise the bowl.	The existing Rye Skate Park features a bowl that is not well used due to the depths not being suitable for beginner or advanced use. Workshops with the Rye Skate Advisory Group flagged the desire to upgrade the bowl to a more

Submission	Ratings Summary	
Accessibility (5 submissions)		contemporary style combination bowl to suit a range of abilities. Furthermore, the bowl provides an element that is unique to the Rye Skate Park compared to other skate parks across the Shire. The design has been developed to encourage progression for riding transitions and bowls. There are smaller 0.9m (3ft) high quarter pipes, and shallower banks (20° pitch) in the lower section of the design for those learning to ride. The shallower section of the bowl has been lowered to 1.65m (5.5ft) deep, compared to the 2.4m (8ft) depth of the existing bowl, making it more accessible. The bowl does have a deeper section (3.15m (10.5ft) deep) for more advanced riders, however users will be able to build up their skills and confidence in the lower sections prior to riding this. The concept design addresses the issues regarding the bowl accessibility and opportunity for progression. **No Change Required to Concept.**
Feedback Theme – Street Skate Features (5 submissions)	Respondents flagged the need for additional street skate park elements. •	Working with the skate park advisory group, and considering nearby skate facilities (Rosebud, primarily a street-style skate park), it was determined that the Rye Skate Park design was to be primarily bowl focused, with street elements included in the remaining footprint. The street features included in the concept design provide an improvement on the existing street inclusion at the skate park, complement the facility at Rosebud, and provide opportunity for users to develop their street-style riding skills. . **No Change Required to Concept.**
Feedback Theme – Surf Skate Considerations (3 submissions)	. Respondents requested features are considered for Surf Skate riders.	The lower section of the concept design has been developed to include shallower banked and transition features. The space is open, allowing Surf Skate riders to ride through, or carve around the street features and progress their skills. The concept design caters for Surf Skate use, whilst providing features for street, and bowl riders too. **No Change Required to Concept.**

Submission	Ratings Summary	
Feedback Theme – Pump Track consideration (5 submissions)	. Respondents requested that a pump track be included as part of the concept design for the Rye Skate Park.	Council has an adopted strategy (Recreational Facilities for Mountain Bike and BMX Strategy 2023) which recommends a district level facility for the Rye township at French Street Reserve. A facility of this classification will include a pump track and therefore will not be included as part of the skate park project. **No Change Required to Concept.**
2 submissions	• Respondents queried the location of the skate park and preferred the Rye Foreshore as the site for the skate park.	The Rye Foreshore is Crown Land zoned Public Park and Recreation Zone (PPRZ) and is covered by an Environmental Significance Overlay (ESO) and ESO Schedule 25 (ESO25). Any planning controls on foreshore land could potentially restrict this type of infrastructure from being constructed or delay the planning and construction due to requiring MACA consent (Marine and Coastal Act). Due to coastal dependency requirements, it is highly likely that this type of project would not meet those guidelines and therefore would not receive a permit, or at the very least would require significant investigation, change in scope of the project, and take considerable time to have the designs approved and ready for construction. The project needed to be ready to deliver by end of 2025 to receive State Government funding, therefore possible delays in getting the foreshore site approved would not have been feasible under those timelines. The existing skate park site at R J Rowley reserve was identified as the most appropriate site for this project. **No Change Required to Concept.**
Submission	Opposed the construction of a new skate park at the reserve as it is a space for young people to congregate and engage in anti-sociable behaviour.	Evidence suggests that skate parks have a range of positive social health benefits for young people and foster pro-social behaviours. Skate Parks play a key role alongside more traditional sports/recreational facilities to foster healthy and active communities and provide another outlet for people of all ages to engage in healthy activities. **No Change Required to Concept.**
2 Submissions	Respondents provided feedback regarding the playground design and asked that play features be carefully considered to ensure the playground is exciting for kids to use, and parents to be with their kids and other families. Additionally, respondents asked for fencing to be considered as part of the design.	The Shire has an adopted Play Space Strategy which has assigned a classification to each play space across the Peninsula. RJ Rowley Reserve playground is classified local, and the play space design in the concept reflects this.

Submission	Ratings Summary	
		Fencing is a consideration for all play spaces, and the Shire has a number of fenced play spaces. However not all play spaces are to be fenced unless safety hazards exist in the vicinity of the space, as this can have negative consequences on how children play. The area that the play space occupies is relatively low risk, being contained within the reserve and separated from the skate bowl area. **No Change Required to Concept.**
Submission	Suggested the inclusion of a separate access point as people wanting to use the skate park need to pay to enter the reserve on football match days	This issue was raised and discussed in consultation with the Rye Skate Advisory Group and the Reserve User groups, including the Rye Football Netball Club. Given this occurrence only happens approximately 15 days of the year, the addition of extra fencing/gates would not present a value for money addition to the skate park and would have a negative impact on the amenity of the area. Additionally, the Rye FNC have verbally confirmed that skate park users are free to enter the reserve to use the park on football match days. **No Change Required to Concept.**

21 May 2024

James Ervacinovic
Recreation Planning & Project Officer
Mornington Peninsula Shire Council
james.ervacinovic@mornpen.vic.gov.au

Rye Skatepark Advisory Group - Letter of Support For Initial Design Concept

Introduction

The RJ Rowley Recreation Reserve skatepark design concept has been thoughtfully planned with input from a local citizen advisory group, council members, PLAYCE, and additional stakeholders from the Victorian skate community. Following is an explanation of the Skatepark Advisory group's involvement in the design concept phase, and the process of forming the skatepark features and design elements.

Design Elements and Benefits to the Local Skating Community Explained

Primary features the skatepark design concept includes:

- 3-Pocket Combination Bowl: Designed for intermediate and advanced skaters.
- Street Skate Area: Geared towards beginners and casual skaters.

Rationale for the Advanced Bowl

1. Limited High-Quality Bowls: The Mornington and Southern Peninsula lack high-quality bowls for skating, so this new design meets a specific demand.

2. Historical Reputation: The old Rye bowl was well-regarded, and Rye is known for bowl skating.

3. Community Fit: Rye's strong surf and action sports community aligns well with an advanced bowl.

4. Youth Training Facility: Young athletes on the Peninsula would benefit from this as a training ground.

5. Inclusive Design: The contemporary design caters to various skill levels, including a section with lower walls for casual skaters.

Rationale for the Street Area

The street area serves multiple purposes, providing 'learn to skate' opportunities for children, disabled individuals, and a broad segment of skatepark users. It is intentionally separated from the bowl to create two distinct areas within the park. This area can be utilised for general skate-recreation, or organised coaching and programming for entry-level skaters.

Formation of the Rye Skatepark Advisory Group

The planning of the RJ Rowley Recreation Reserve skatepark involved extensive consultation with a local citizen advisory group, comprising a diverse group of local residents and stakeholders from various aspects of the Victorian skateboarding community.

The advisory group began its formation in 2022, driven by strong community support on Facebook and a skate competition in Sorrento to express the need and demand for a new Rye Skatepark. A series of web-based meetings were organized, inviting as many local residents as possible.

Those who showed the most interest and regularly attended meetings were eventually named to the the Rye Skatepark Advisory Group.

Consultation Process with Council

The Rye Skatepark Advisory Group participated in three rounds of meetings hosted by the Mornington Shire. These sessions included award-winning skatepark designers from PLAYCE, who provided expert design guidance.

This collaborative process ensured that the skatepark design reflects the needs and preferences of the broad community. Regular meetings with the council facilitated open dialogue, enabling the group to provide valuable input and feedback on various design elements, ultimately leading to a well-rounded and community-focused skatepark.

Conclusion

In conclusion, the final design mockup delivered by PLAYCE is the result of extensive discussions and meetings. It reflects a convergence of diverse ideas and opinions, aiming to meet the needs of all stakeholders. The design includes features ranging from a learn-to-skate area to a 10.5-foot bowl with vert walls, addressing the varied demands of the Rye community.

The Rye Skatepark Advisory Group fully supports the current concept design and is excited about the potential benefits this project will bring to our community. We look forward to the next phase of the project.

Yours sincerely

Tim Preston
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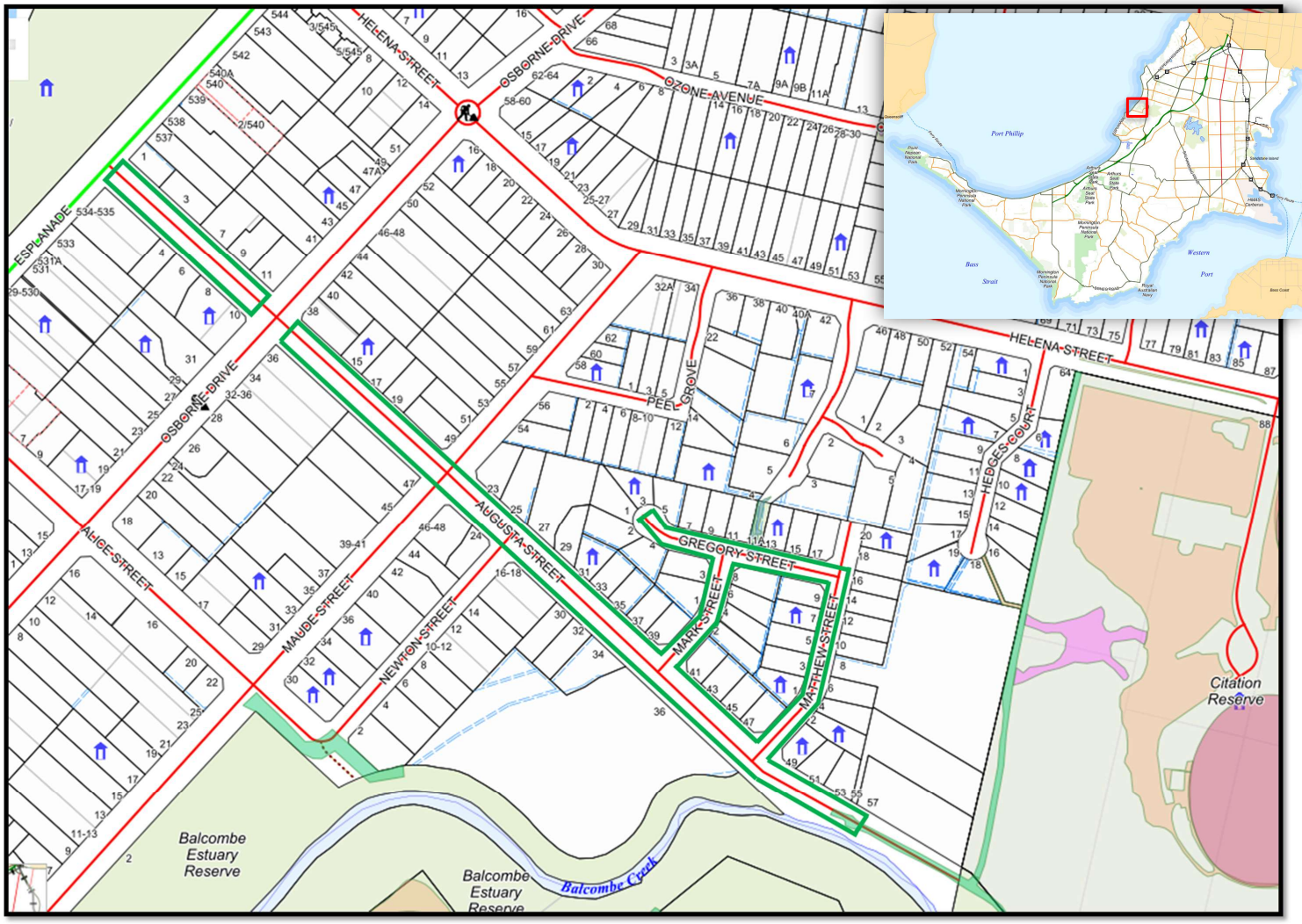
tim@vybrnt.com


HELENA STREET
OSBORNE DRIVE
OZONE AVENUE
ESPLANADE
OSBORNE DRIVE
ALICE STREET
MAUDE STREET
NEWTON STREET
AUGUSTA STREET
PEEL GROVE
GREGORY STREET
MARK STREET
MATTHEW STREET
HEDGES COURT
HELENA STREET
Balcombe Estuary Reserve
Balcombe Estuary Reserve
Balcombe Creek
Citation Reserve
Port Phillip
Bass Strait
Western Port

29 February 2024

«Owner_Name»
«Service_Address1»
«Service_Address2»

Dear Sir/Madam

RE: AUGUSTA STREET GROUP CONSTRUCTION SURVEY

Mornington Peninsula Shire is proposing to construct Augusta, Mark, Gregory and Matthew Streets, Mount Martha (the Augusta Street Group). As a result, we are now conducting a survey of the owners of properties in those roads to determine the level of support to construct the road using a special charge scheme.

The roads are proposed to be constructed to a residential standard with an asphalt surface and appropriate drainage from the Esplanade to the end of the existing unsealed road. The proposal would be funded via a special charge scheme with the costs shared evenly between Council and the owners of properties that benefit from the works. For more information on special charge schemes, or to view the Augusta St Group concept plan and estimated cost apportionment, please visit mornpen.vic.gov.au/specialchargeschemes. A brief special charge schemes FAQ is enclosed for your information.

Also enclosed is a survey form for your response. Please fill in the survey and return it to the Shire in the prepaid self-addressed envelope. Alternatively, the survey may be completed online (instructions are on the survey). Surveys must be **received by the Shire by Friday 22 March 2024.**

The results of the survey will be presented to Council to consider whether to proceed with a special charge scheme. If Council decides to proceed, formal notices will be issued that invite property owners to make a submission to Council before a final decision on the proposal is made. If Council decides to not proceed, we will send you an update letting you know.

Contact the Mornington Peninsula Shire
1300 850 600
mornpen.vic.gov.au
customerservice@mornpen.vic.gov.au

By post: Private Bag 1000,
90 Besgrove Street, Rosebud VIC 3939
ABN: 53 159 890 143

MORNINGTON PENINSULA Shire

Please note that your survey response is confidential, is not binding, and does not affect your right to make a submission should a special charge scheme proceed to the formal consultation phase.

If you would like to receive project updates by email instead of letter, please send a short request to the below email address (though please note that official correspondence required by policy and legislation will still be mailed). If you have any questions, please contact me directly on ph: 5950 1303 or by email to scs@mornpen.vic.gov.au.

Kind regards,

Jeremy Grieve
PROJECT MANAGER – INFRASTRUCTURE STRATEGY

MORNINGTON PENINSULA Shire

INFORMATION ON SPECIAL CHARGE SCHEMES

What is a special charge scheme?
A special charge scheme is a funding method that allows the Shire to recover the cost of infrastructure works from property owners who will gain a special benefit as a result of the works.

I thought my rates covered infrastructure works. Why use a special charge scheme?
Due to the increase of more permanent residents on the Mornington Peninsula, there is a greater expectation that roads are made or footpaths are provided. In response, the Shire has historically used special charge schemes to provide this infrastructure that otherwise would not be built through rate revenue alone.

I have never heard of special charge schemes. Is this new?
No; the Shire has a long history of using special charge schemes to fund the construction of roads, car parks, footpaths and drainage works. All special charge schemes are conducted in accordance with the Special Charge provisions of the *Local Government Act 1989*.

Why have I been included in the scheme?
Your property has been included in a proposed scheme based on the special benefit that the land will receive from the works.

What is special benefit?
Special benefit is the benefit received by the land (rather than a particular person) as a result of the works which is above and beyond the benefit received by a member of the general public. Infrastructure works typically provide benefits such as improved amenity, safety, access, drainage, increased property values and other benefits depending on the nature of the works.

Would I be able to pay off a special charge over time?
Yes. All special charges can be paid in instalments over a period of up to 15 years, depending on the value of the special charge.

What happens after the survey?
The survey result will be reported to Council, and the Council will make the decision whether or not to proceed. If Council decides to proceed it is not the final decision on the proposal; the next step is a formal, statutory consultation period whereby you will receive a notice inviting you to make a formal submission. Council may only make the final decision on a special charge scheme after the statutory process has been completed.

If Council decides to not proceed with the proposal, that will be the end of the process. We will let you know what Council decides.

SURVEY ID: «Survey_ID»
Please see instructions below to complete the survey online.

ATTN:
Mr. Jeremy Grieve
PROJECT MANAGER – INFRASTRUCTURE STRATEGY

AUGUSTA STREET GROUP CONSTRUCTION SURVEY

«Owner_Name»
«Property_Address1»
«Property_Address2»

A proposal to construct Augusta, Mark, Gregory and Matthew Streets Mount Martha (the Augusta Street Group) is currently being investigated by the Shire. If the proposal is to proceed it will require a financial contribution from each property owner. The contribution is estimated to be **$xx,xxx for your property**, based on lot size and boundary length. All special charge contributions can be paid in instalments.

Do you support of the construction the Augusta Street Group and contributing to the cost of its construction?

☐ YES

☐ NO

(Please tick the box which identifies your choice)

Please provide additional comments below **(Optional)**

(PLEASE RETURN BY 22 March 2024)

INSTRUCTIONS TO COMPLETE SURVEY ONLINE

1. Visit mornpen.vic.gov.au/specialchargeschemes
2. Click on the survey link under the Special Charge Scheme Surveys subheading.
3. Fill in the required fields. (Please ensure that you have entered your unique survey ID which may be found on the top of this page)
4. Submit the survey.

CAPIM
CENTRE FOR AQUATIC POLLUTION IDENTIFICATION AND MANAGEMENT

Balcombe Creek Estuary Sediment Study

Sediment loads and water quality monitoring and analysis

Technical Report No. 77

Simon Sharp and David Sharley

July 2017

Final Version 2.0

How to cite this report: Sharps, S. and Sharley, D. (2017) Balcombe Creek Estuary Sediment Study, Centre for Aquatic Pollution Identification and Management, Technical Report No. 77, University of Melbourne, Victoria, Australia.

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Executive Summary

Background:

Balcombe Creek Estuary is an intermittently open estuary of regional significance. Urbanisation and changes to land uses in many of the waterways within this catchment have contributed substantial changes to hydrology over the past 50 years. In particular, accumulation of sediments within the estuary is a key threat with potential impacts including high accretion rates, turbid waters and associated changes to the estuarine ecosystems, such as loss of seagrass, food and habitat for fish and macrofauna.

Scope and Aims:

Mornington Peninsula Shire Council (MPSC) has been working with the local community group, Balcombe Estuary Rehabilitation Group (BERG), to reduce sedimentation to the estuary. This study aimed to increase the understanding of the impact stormwater run-off is having on sedimentation loads to the estuary, and to assist in prioritising further management actions.

Methods:

Fifteen sites were monitored in this study using spot samples to prioritise sites with high sediment loads. Water samples were measured for turbidity by water quality meter and analysed for suspended solids as well as average velocity (flow). This data allowed instantaneous loads to be calculated during storm sampling. A further three sites were sampled continuously to characterise loads over three rainfall events.

Results:

Findings of the spot sampling suggest run-off from three study sub-catchments contributed substantial sediment loads to the estuary during high rain-fall events, namely Ferrero Reserve, Henley Ave and Augusta St catchments (See Figure 3, page 17). A summary of the sedimentation flow rates is shown in the Table below:

	Site	Average Instantaneous Sedimentation Discharge Rate	Catchment Size	Predominant Suspended Sediment Type	Likely origin / comment
1	Ferrero Reserve sub-catchment (Hopetoun Creek)	224 g /sec	204	Poorly sorted fine to coarse silts	Highest suspended sediment load and highest yield of sediment per square metre
2	Henley Ave	35 g/sec	60.4	Poorly sorted silty sand. Coarse sands will quickly fall out of the water column and settle directly in the lower estuary	Second highest suspended sediment load and highest yield of sediment per square metre.
3	Augusta Ave	22 g/sec	30.3	Poorly sorted corase silts to fine sands	Third highest estimated sediment loads and yield of sediment per square metre
4	Mirang Ave	19 g/sec	20	Poorly sorted medium silt	Fourth highest estimated (instantaneous) sediment loads
5	Uralla Drive	0.8 g/sec	22	Poort sorted very coarse silt	Lowest overall discharge from all events

The instantaneous loads estimates showed:

- Ferrero sub-catchment (Hopetoun Creek) had the highest average instantaneous discharge of 684 grams per second, followed by Henley Ave with 35 g/sec
- Loads from Augusta (West) outfall were the third highest, and ranged between 10 and 39 grams per second over three events
- Mirang was generally lower than Ferrero, Henley and Augusta, except for one event with 56 grams per second of suspended sediment, while otherwise ranged from 2 to 19 grams per second
- Uralla measured the lowest average discharge from all events, ranging 0.3 to 2 grams per second over the four events, and is an unlikely source of large volumes of sediment
- Particle sizes varied with sediments consisting of coarse silts and sands and from Henley and mostly fine silts and sands from Ferrero

Three catchments, Fererro Reserve, Henley Ave and Augusta St were selected for continuous monitoring over three rainfall events. A summary of the total estimated loads from the three events is shown in the table below:

Total estimated suspended sediment load (kg) during each event based on linear interpolation. Error reported as cumulative uncertainty (±30%).

Site	Event 1	Event 2	Event 3
Augusta	4.2 ± 1.3 kg	166 ± 50 kg	263 ± 79 kg
Ferrero	178 ± 53 kg	1,528 ± 458 kg	10,114 +/- 3,034 kg
Henley	155 ± 47 kg	ND	1,664 ± 499 kg

Based on the estimated total loads and yields of suspended solids from the three sub-catchments durring 28 Sep – 23 Oct, it was shown that:

- Approximately 14 tonnes of suspended sediments were discharged into Balcombe Creek estuary from the three sub-catchments during the three storm events,
- Hopetoun Creek (sub-catchment Ferrero), with a catchment area of 204 Hectares, representing around 70% of the total monitored area, generated the highest suspended sediment load and had the highest yield of sediment per square metre,
- Rainfalls during continuous monitoring event ranged from 3.2 mm to 21.2 mm,
- Augusta Street has the lowest estimated loads and yield of sediment per square metre.

Recommendations

This study provides crucial information to enable council to improve the decision-making processes around sediment and stormwater management within the Balcombe creek catchment area. There is a need to improve the quality of stormwaters to protect Balcombe Creek, through changes in the catchment, additional treatment, and/or slowing or diverting water flows prior to draining into the estuary. Addressing issues with sediment management for the Balcombe Creek estuary should be prioritised based on the findings from this report of suspended sediment loads and yields, along with recommendations from other sources, and in discussion with relevant waterway stakeholders.

There is a need for adaptive management strategies to allieviate the volume of sediments entering Balcombe Creek estuary from across the catchment. Utilising well designed road drainage and diversion systems to funnel eroded material into buffer systems such as vegetated and unvegetated roadside swales and sediment pits should be used to offset water quality degradation downstream. The order of priority should follow a cost benefit analysis and risk matrix to be developed by MPSC in consultation with Melbourne Water and the community, taking into account the available resources and relevant information. There are several key findings from this study and priority urban sub-catchments which require further treatment, namely,:

1. Henley Ave - Investigate alternative options for treating suspended sediments including disconnection of stormwater flows, vegetated swales, graded pits and increased vegetation in verges. Review the size, capacity and maintenance of the existing CDS GPT. Any upgrade of the existing GPT will require frequent maintenance and are unlikely to deliver major benefits. Construction of a sediment pond would require a much larger area of land and higher in terms of cost of construction and maintenance.
2. Ferrero Reserve - Investigate options to revegetate riparian corridors, install vegetqated swales to slow down inflows to Hopetoun Creek and reduce flow rates, trap suspended sediment and increase natural infiltration in this catchment prior to entering the creek
3. Augusta Street – results indicate this catchment is not a major source of suspended sediments and a lower priority. While sealing dirt roads may help alleviate the volume of road base material entering the creek, this would result in increased flow rates from impervious surface run-off, requiring further infrastructure to treat stormwaters prior to entering the creek. Currently, suspended sediment from this catchment appear to consist primarily of fine silts and clays, with larger particles entering as bed-load material

Suitable treatment technologies should be evaluated by Council in consultation with waterway stakeholders and stormwater designers. Vegetated swales can be used as part of a water sensitive urban design strategy to convey and decrease run-off velocities into road verges and trap suspended sediments. The use of a constructed wetlands is a large undertaking for removal of sediments and should be carefully considered, as it would require a sediment basin, high flow bypass channel, regular maintenance and sediment disposal and would need to be costed and designed according to the Melbourne Water design manual. Recommendation for further assessment are for ongoing sediment and water quality monitoring of Balcombe Creek catchment. Further consideration should also be made for bed-load transport and other pollutants including gross litter and contaminants which are likely to be causing additional stress to the ecosystem.

Introduction

Background

Balcombe Creek drains a catchment area of 87 km^2 and includes tributaries such as Tuerong, Devilbend, Harrap and Hopetoun Creeks, as well as a number of smaller tributaries and stormwater inflows. The estuary is of regional significance as a comparatively intact intermittent estuary on the eastern side of the Bay. With increasing pressure from urbanisation and changes to land uses, many of the waterways within this catchment have undergone substantial changes to hydrology over the past 50 years, with land clearing and development for housing, roads and other infrastructure. The potential for pollution entering the creek and estuary was identified in earlier studies, and concern from the community on how pollution may be impacting the ecology of the estuary has been expressed.

Accumulation of sediments in Balcombe Creek estuary can impact estuarine processes and can lead to losses of seagrass, food and habitat for fish, macrofauna and birds. The ecological impact of suspended sediments will vary depending on the volume, frequency, timing and severity of inputs. The particle size of sediments will also influence the types of impacts on the receiving ecosystem. Fine silts and clay particles can bind chemical contaminants through mineral complexes, with higher concentrations able to adsorb to the larger surface area of small particles. These fine particles are also more easily transported for larger distances in the water column. Greater volumes of coarse sediments can increase channel aggradation and accretion rates, in turn reducing water depths and flows (Nelson and Booth 2002).

Sediment can enter the estuary from numerous sources across the catchment. However, the primarily focus has been on the impact of urban runoff in Mount Martha at the sub-catchment scale within the vicinity of Balcombe Creek estuary. Often following heavy rain, unsealed roads and car-parks are scoured by flows carrying sediments off the catchment into the estuary via stormwater.

Event-based stormwater runoff is the primary mode of transport for particulate pollutants of non-point origin. Sediment wash off during high intensity rainfall events can cause a large degree of displacement of fine and coarse particles from surfaces within the catchment. Typically, the majority of the annual loads of sediments will be transported during storm events, which only occur with the onset of larger rainfall runoff events. Therefore, it is essential that samples for total suspended solids are taken during these periods to determine accurately the total loads entering the estuary from each catchment.

Existing knowledge

Several previous studies have examined some of the issues and threats facing Balcombe Creek estuary and the inflows from tributaries and the main creek.

Previous work to date has estimated the potential runoff and sediment loads from several sub-catchments and provided suggestions for managing stormwater assets to protect the values of Balcombe Creek (Water Technology 2010). This sedimentation study by Water Technologies modelled the sediment and nutrient inflows from several sub-catchments which drain directly into the estuary, including LaTrobe Drive, Henley Ave, Augusta Street and the Kindergarten Carpark. Their

modelling using SWMM (USEPA) and MUSIC (eWater) suggested a potential reduction of between 10-25% in annual suspended sediments loads from these catchments using several stormwater treatment technologies, including sediment basin (LaTrobe and Henley), vegetated swales (all), sealing of roads and/or carpark (all), and surface treatment sprays (Water Technology, 2010).

Pollution concentrations in sediments in Balcombe Creek estuary have been monitored by CAPIM since 2010, adjacent the park at the end of Mirang Drive. Sediment particle size in this area consist of sandy silt (median 80 µm), with around 25% coarse to medium sand (250 – 2000 µm) and around half silt (2 – 63 µm) (CAPIM, unpublished data). Metal pollution remains low and relatively stable over the past 7 years, while pesticide residues, primarily synthetic pyrethroid insecticides bifenthrin and permethrin, have been detected intermittently (Sharley and Sharp, 2015, 2017).

The Healthy Waterways Strategy (HWS) developed in partnership with Melbourne Water and the Victorian State Government aims to maximise investment to protect and improve priority community and environmental values and increase liveability (Melbourne Water, 2013). The priority values for Balcombe Creek identified in the HWS are amenity and birds for the Estuary, as well as frogs for the freshwater creek area. This study should help to address the risk from sediment pollution by providing much needed information on sediment loads across the Balcombe Creek estuary catchments, and prioritise further action where most required.

Scope

CAPIM were engaged by Mornington Peninsula Shire Council to provide input on sediment pollution flowing from the surrounding catchment, with the view to provide data that will demonstrate how planned management works may reduce sediment loads to the estuary.

This study aimed to measure turbidity, suspended solids and stormwater flows, quantifying sediments loads draining to Balcombe Creek from the main inputs surrounding the estuary.

The study was divided into two Phases.

The primary aim of Phase 1 was to collect data over storm events to then determine turbidity and suspended sediment concentrations, flow depth and velocity to calculate instantaneous discharge from multiple sub-catchments and stormwater assets and prioritise areas for further investigation.

The purpose of Phase 2 of the study was to capture suspended sediment loads during high rainfall events, including the peak flow period.

This report provides a summary of the two phases of monitoring for key sub-catchments and identified priority catchments for treatment of suspended sediments inflows from stormwater.

Aims

- Determine concentrations of suspended solids entering Balcombe Creek estuary
- Estimate the total volumes and sizes of sediments discharged during high and medium intensity stormwater flows;
- Understand the relative loads from the sub-catchment storm flows to assist in prioritising works

Methods

This project consisted of two approaches, with the first, based on a snapshot sampling method to provide greater spatial coverage for monitoring. This sampling builds on existing community monitoring by BERG supported by MPSC, which involved spot measurements of turbidity and other water quality parameters at 14 sites within the estuarine and lower riverine sections of Balcombe Creek (Figure 1). Initially this work was carried out during base-flow periods, however flow rates at these sites were negligible during periods with no antecedent rainfall. With support from CAPIM, this monitoring was adjusted to include measurements for total suspended solids (TSS), flow and estimate instantaneous sediment discharge over four rainfall events from March to August 2016.

The second phase, involved the deployment of water flow loggers and turbidity meters at the three priority sites from 28 September until 22 October 2016 (Figure 3). Three storm events were recorded during this period.

Sediment loads were estimated through the relationship between turbidity, TSS and flow. To determine the quantity and particulate size of sediments flowing from stormwater, entering the upper and lower Balcombe Creek estuary, particle size measurements were determined using a laser particle analyser.

A summary of the two phases of this study and methods are provided below, while further details can be found in Appendices 1 – 4.

Phase 1 - Spot Sampled Storm Events

This study assessed stormwater flow at 15 sites (with an additional outfall measured at Augusta Street) on the Mornington Peninsula in Mount Martha within the Balcombe Creek estuary catchment (Figure 1). Water samples were measured *in situ* for turbidity by water quality meter. Velocity (m/s) was measured by velocity meter (Global probe FP211). Cross sectional areas was calculated from measured water height (h) and diameter (d) of stormwater outfalls to within the nearest cm by ruler. Total suspended solids were analysed by standard methods (APHA 2005) with a limit of reporting of 1 mg/L.

Total discharge was calculated from total flow (velocity * cross sectional area) * suspended solids and are reported in grams per second (g/s).

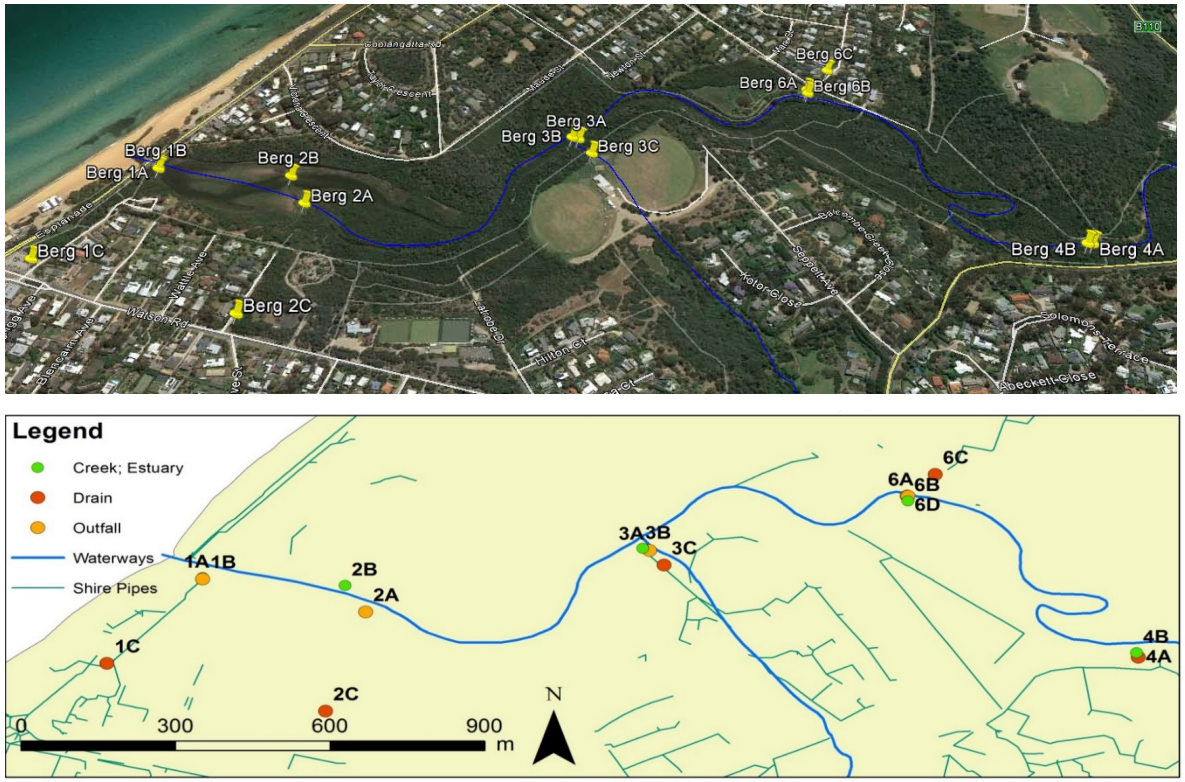

Figure 1 – Maps showing the 15 BERG sampling sites along Balcombe Creek estuary.

Phase 2 - Continuous Storm Event Sampling

Study locations

The second phase of this study assessed stormwater flow at 3 sites (Henley 2A, Ferrero 3A and Augusta 6D) on the Mornington Peninsula in Mount Martha within the Balcombe Creek estuary catchment (Figure 3). While sub-catchments have different land use characteristics, the primarily land uses comprise of urban residential, commercial and open space/parkland (ABS, 2016).

Figure 2 – Photos of the sampling sites A) Henley Ave stormwater outfall, B) Augusta Street stormwater outfall (West), and C) Ferrero Reserve stormwater (Hopetoun Creek) outfall.

Catchments

The three catchments are described below in Table 1 and visualised in Figure 3. Ferrero Reserve stormwater outfall drains includes stream water from Hopetoun Creek

Table 1 – Catchment properties and details of the monitoring sites.

Catchment	Area (Ha.)	Predominant Land use	Pipe Diam. (cm)	Stormwater Infrastructure
Augusta	30.3	Medium density residential, unsealed and sealed roads	110	Piped drainage, surface runoff from Augusta Street
Henley	60.4	Medium density residential, mixed road types	87	Piped drainage, open roadside swales, Rocla CDS
Ferrero	204	Medium density residential and mixed sealed and unsealed roads	75	Piped drainage, open roadside swales into reserve

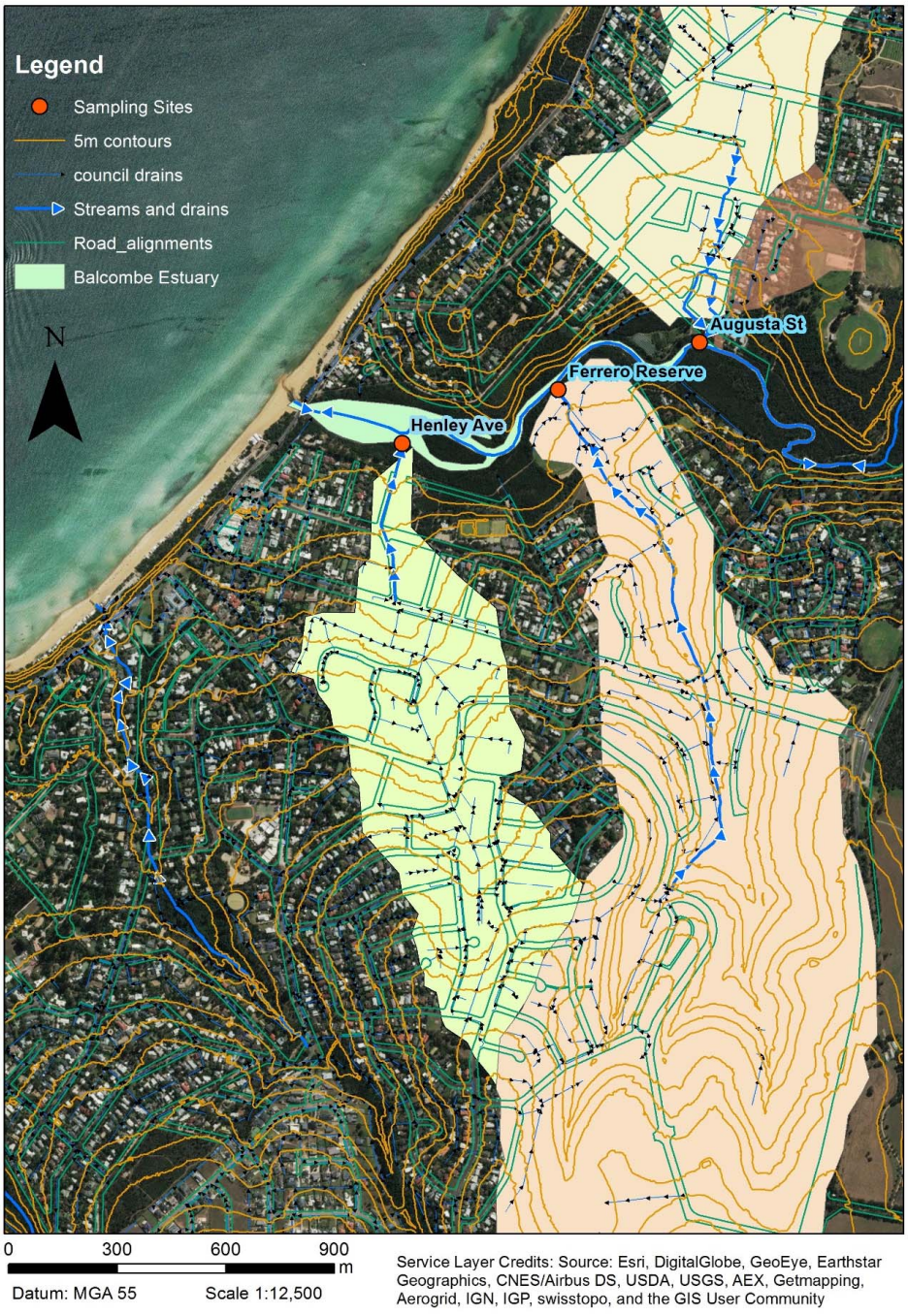

Figure 3 – Catchment map of the three continuously samples sites and their catchments as mapped by 10m DEM showing stormwater pipes and pits, river and main roads.

Rainfall observations

Rainfall measurements were provided by Melbourne Water and derived from the closest rain gauge which was Devil Bend Reservoir [Station ID: 586206; -38.2769, 145.1] (Melbourne Water, 2016), which lies 6.7 km to the east of Mt Martha and records at 6-minute intervals.

Rainfall and Flow Characteristics

The use of Intensity Frequency Duration (IFD), Average Recurrence Interval (ARI) and Average Annual Exceedance Probability (AEP) are notable in rainfall-runoff analysis (Engineers Australia 2006; BOM 2016). The AEP was compared to the rainfall from each of the events to determine the likelihood and frequency of this event occurring each year.

The runoff coefficient (Eq. 1) was used to determine the total volume of flow relative to the amount of rainfall over each event and was calculated as follows:

(1) $$rc = \frac{v}{r \text{ X A}}$$

Where *rc* is the run-off coefficient, *r* is the rainfall (m), A is the catchment area (m^2) and v is the total runoff volume (m^3). A coefficient >1 would indicate more flow than suggested by rainfall.

Flow measurement

ISCO 750 low-profile area velocity flow modules were deployed at the outfalls to measure velocity by ultrasonic Doppler and depth by pressure transducer at the three main stormwater drains. These were programmed to log water depth and water velocity after level measurement and a zero level offset. Flow rate (m^3s^{-1}) was then calculated at one minute intervals using cross sectional area multiplied by average velocity. Data was checked and processed and aggregated to 6 minute averages to coincide with rainfall and turbidity logging intervals (detailed in Appendices 2, 3 and 4).

Measurement of water quality

Sediments were measured using turbidity sensor calibrated to TSS over multiple events and individual catchments. Turbidity was used as a surrogate for TSS to log continuous readings and compare against flow data (Lewis 1996). This provides calibrated catchment models which future sampling can be compared to for each catchment for any future community monitoring and logging using similar equipment.

Estimated Loads

Loads were calculated using linear interpolation as the primary method for estimating total suspended solids, so long as samples were available either side of the rising and falling limb of the hydrograph. Where data was limited, both the Beale Ratio and linear interpolation were used.

Loads were estimated using flow rates (m^3s) and water concentration data (estimated TSS) with a 6-minute time step in Water Quality Analyser (WQA) 2.1.2.4 (eWater CRC 2012). The process involved:

- Estimated TSS from turbidity using linear interpolation from regressions analysis on a 2 minute time-step

- flow data (m^3s^{-1}) were imported into WQA on a minute timestamp
- rainfall data was imported into WQA on a 6-minute time-step
- flow data were aligned to the water quality concentration data if necessary
- all data was checked and processed and aggregated to 6 minute time step
- Data for each catchments and event was selected and loads estimation tool was run

Loads are presented as the estimated value plus or minus the probable error (± %) as an estimate of uncertainty in measured flow and TSS data. Based on published literature and considering sampling complexities (such as estuarine backflows, sand accretion over loggers), the cumulative uncertainty was estimated at 30% from the propagation of errors in measuring depth, velocity, analysis of TSS, and calculation of suspended solids from turbidity models (Appenidx 3; cf.Harmel et al 2006).

Sediment Yields

Yields describe the load of pollutants (e.g. kilograms) from each sub-catchment (e.g. km^2) which is monitored (i.e. kg/km^{-2}). Yields can provide useful measures to directly and quickly compare the rate of sediment delivery between monitored sub-catchment areas. Yields also enable a rapid assessment of the differences in the rate of sediment loads derived from dominant land use types in each sub-catchment area. From the 3 auto-sampler sites data collected between September and October 2016, yields were calculated by dividing the total estimated sediment load from all three events by the total sub-catchment area.

To derive catchment areas, a 10m digital elevation model was created from 5m contours and ingrained flow direction from stream and drain layers. Sub-catchments were delineated using the hydro catchment tool in ArcGIS (version 10.4.1) (see Sharley et al 2017 for full methods).

Quality Assurance and Control

A number of checks and decisions steps were applied for suspended sediment concentraitons, turbdidity measumrents and water flow data. Detailed information on these and the quality assurance and control (QA/QC) protocols are detailed in Appendix 4. In summary, they included data verification and validation, error checking, data adjustment for known errors, aggregation and interpolation of data and computation of derived variables. Manual checks were made to detect errors, inconsistencies and apparent malfunctioning in the instrument data. Start and finish times were compared to field logs, and data were reduced to the periods of observation.

Results

Phase 1 – Spot Sampled Storm Events

Samples over four moderate size rainfall events were collected by CAPIM staff, MPSC staff and/or BERG volunteers. This was an expansion of the existing base-flow sampling conducted by BERG in conjunction with MPSC. Turbidity and total suspended sediment measurements during each rainfall event between March and August 2016 were compiled and are shown in Appendix 4.

Samples taken over the three events showed high concentrations of suspended solids ranging greater than 500 and maximum of 1,246 mg/L. Figure 7 shows instantaneous sediments loads from each event. Ferrero clearly showed much higher loads of TSS than all other catchments, while the lowest discharge was from Uralla.

Rainfall

Mean long-term annual rainfall is around 742 mm (Mornington, 086079, 38.24°S 145.07°E), generally with slightly higher rainfalls from April to October (BOM 2014). Total annual rainfall for 2016 was 753.2mm (Devilbend Reservoir, Melbourne Water). During the sampling period, the largest rainfall event in 24 hours was 26.2mm on 10 May, with May also the wettest month with 122 mm. Rainfalls were relatively similar to long-term averages and mean monthly totals.

- 15.2 mm of rainfall fell over the 24 hours from 9am of the 18 March to 19 March, in addition to 17mm in the previous 24 hours.
- 6 April had only 3.6mm during the day, but 11mm the previous 24 hours.
- On the 5 July, a total of 18.8mm fell over 24 hours.
- 19 August recorded 13.2mm over a 24 hour period.

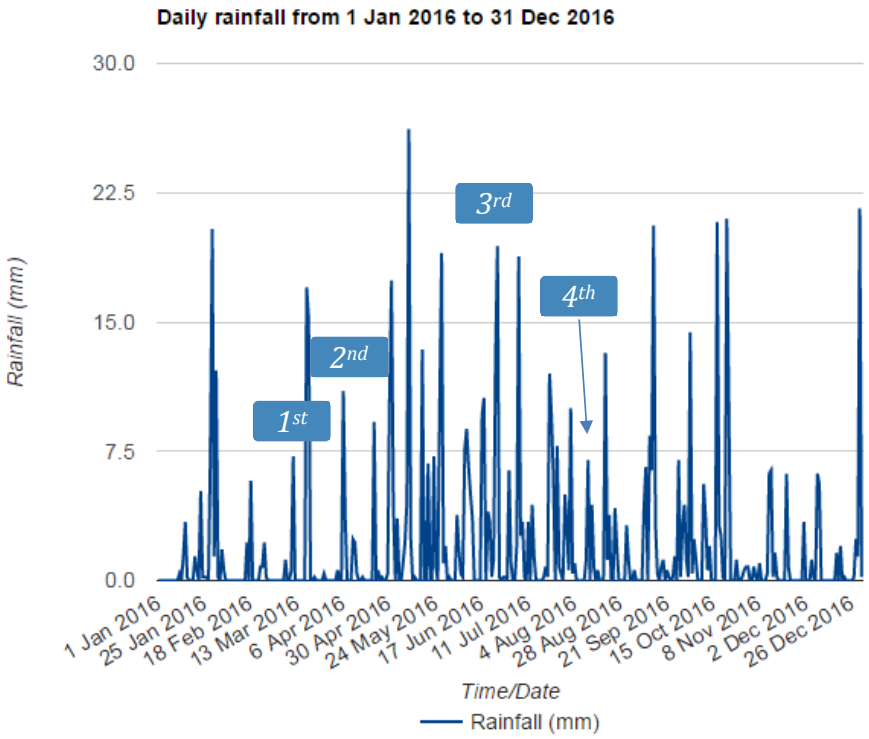

Figure 4 - Daily rainfall data for 2016 from Devil bend Reservoir rainfall gauge (Melbourne Water, 2016).

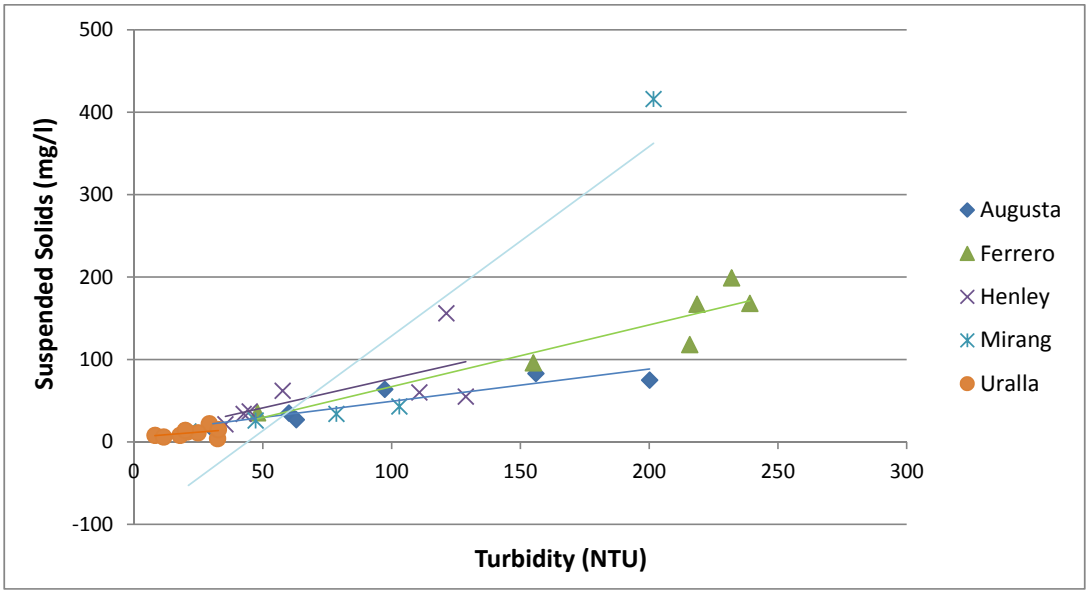

Figure 5 – Scatterplot matrix and estimated linear fits for the correlation between suspended solids and turbidity from initial data.

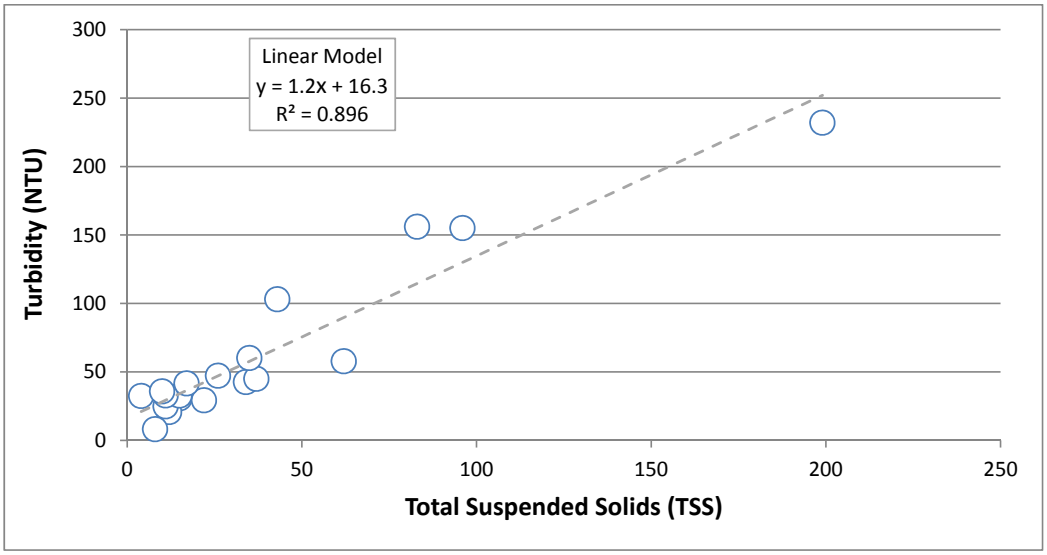

Figure 6 –Scatter plot and estimated linear model of the relationship between total suspended solids (TSS) and turbidity (NTU) from initital samples.

CENTRE FOR AQUATIC POLLUTION IDENTIFICATION AND MANAGEMENT

Balcombe Creek Estuary Sediment Study

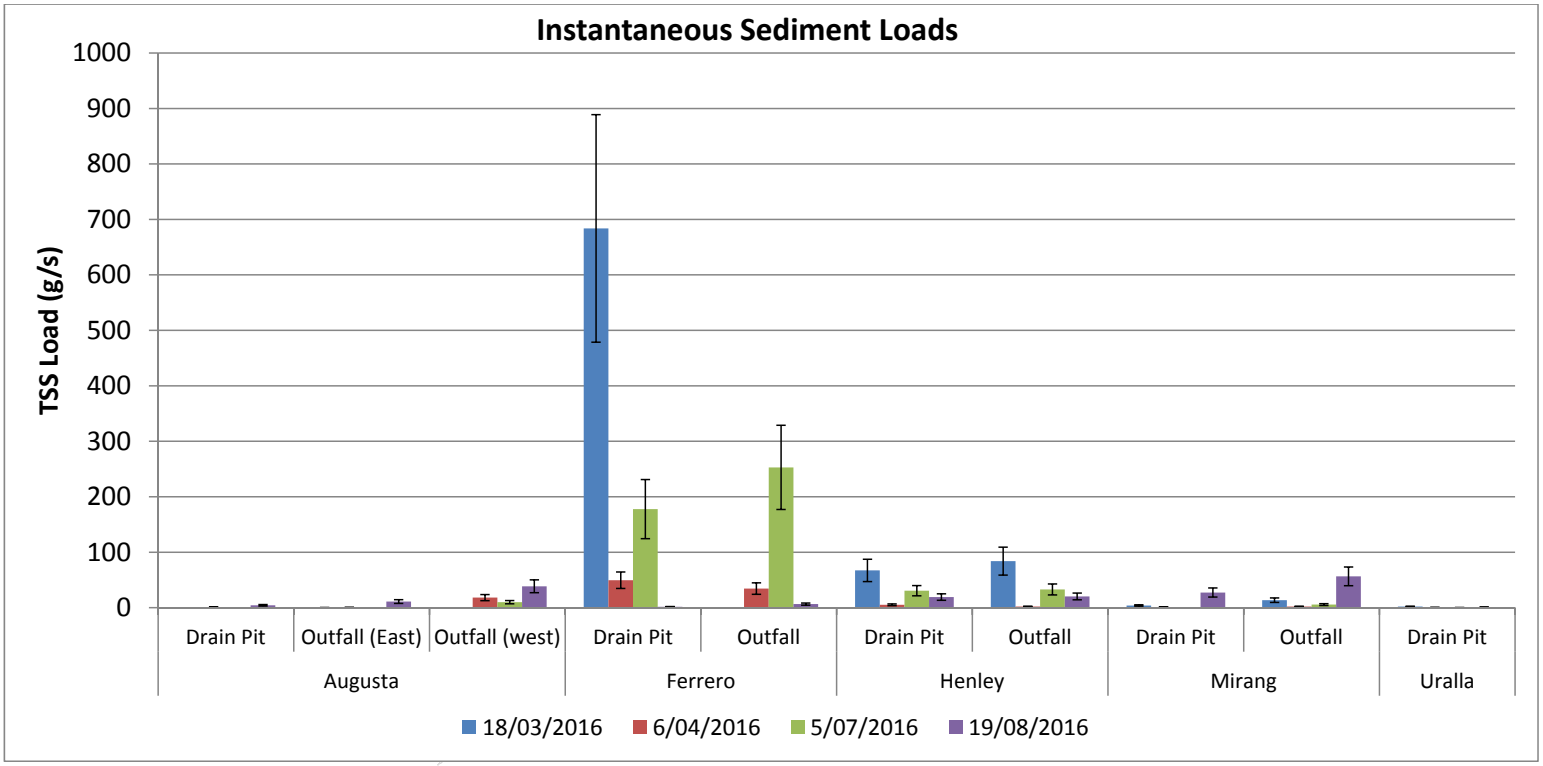

Figure 7 - Instantaneous loads from stormwater drains and outfalls calculated from suspended solids and water flow rates. Error bars represent (±30%) probable error from cumulative uncertainity analysis.

Instantaneous Loads

Total instantaneous sediment discharge was highest from Ferrero, followed by Henley, Augusta and Mirang (Table 2). Henley had similar volumes of sediment from both the drain pit, upstream of the GPT, and from the outfall. Measured flows and concentrations of suspended solids over the four rainfall events provide a clear assessment of the priority areas for sediment incursion into the upper (Ferrero and Augusta) and lower estuary (Henley).

Table 2 – Summary of average instantaneous suspended sediment loads, sediment type and evaluation from four rainfall events in 2016.

	Site	Average Instantaneous Sedimentation Discharge Rate	Catchment Size (Ha.)	Predominant Suspended Sediment Type	Likely origin / comment
1	Hopetoun Creek (Ferrero Reserve sub-catchment)	224 g /sec	204	Fine and coarse silts	Highest suspended sediment load and highest yield of sediment per square metre
2	Henley Ave	35 g/sec	60	Silty sand. Coarse sands will quickly fall out of the water column and settle directly in the lower estuary	Second highest suspended sediment load and highest yield of sediment per square metre.
3	Augusta Ave	22 g/sec	30	Fine silts and clays	Third highest estimated sediment loads and yield of sediment per square metre
4	Mirang Ave	19 g/sec	20	Poorly sorted medium silt	Fourth highest estimated (instantaneous) sediment loads
5	Uralla Drive	0.8 g/sec	22	Poort sorted very coarse silt	Lowest overall discharge from all events

Particle Size

The differences in particle size between the sites and within storm flow events were assessed for selected samples over the four stormwater events.

Particle size ranges from all sites including Augusta, Ferrero, Mirang and Uralla were variable. However, Henley Ave generally showed a high volume of sand in both samples taken on the 19 August upstream (2C) and downstream (2A) of the Rocla Continuous Deflection Separation (CDS) Gross Pollutant Trap (GPT) unit (Figure 8).

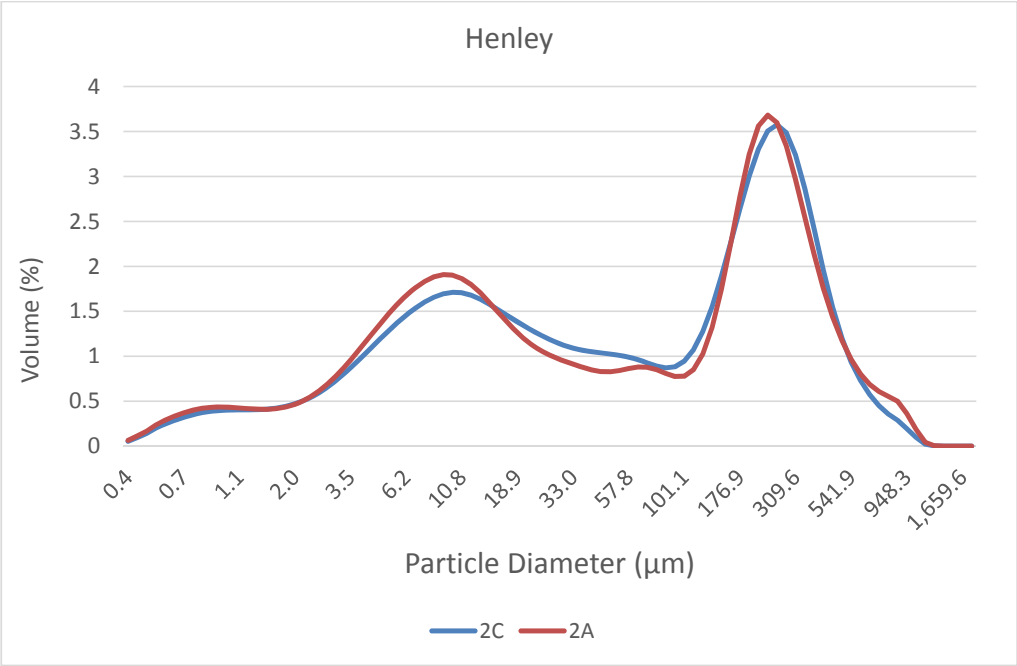

Figure 8 – Particle size distribution for Henley Ave stormwater samples from (2C – Drain pit) upstream and (2A – Outfall) downstream of the GPT during a high-flow event, 19 Augusta 2016.

Phase 2 – Continuous Storm Event Sampling

Rainfall Patterns

Rainfalls over the month of September (72.8 mm) was similar to the long term average, while in October rainfall was around 33% higher than the long-term average with a total of 92.2 mm. Figure 9 shows the daily rainfall for September and October 2016 and the three rainfall events over which continuous sampling was conducted is shown in Table 3.

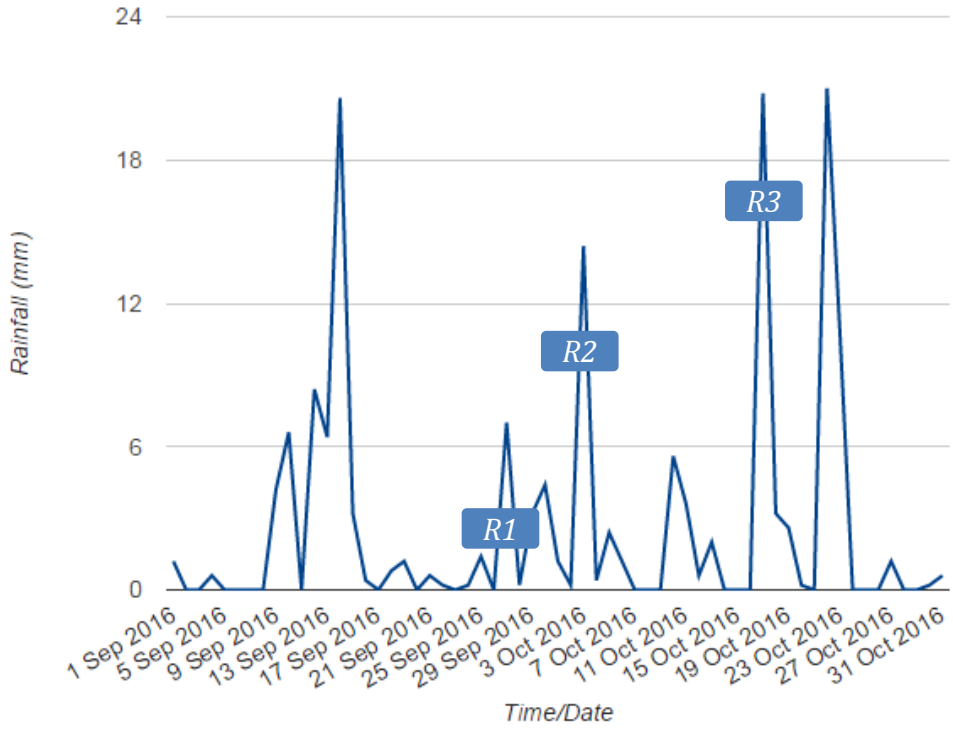

Figure 9 – Daily rainfall observations (mm) from Devilbend Reservoir rain gauge for September-October 2016 and sample events (Melbourne Water, 2017).

Table 3 - Summary of rainfall over three events for continuous flow sampling.

Parameter	Event 1 29/09/16			Event 2 2-3/10/16			Event 3 22-23/10/16		
Catchment	Henley	Ferrero	Augusta	Henley	Ferrero	Augusta	Henley	Ferrero	Augusta
Runoff coefficient	0.25	0.1	0.41	ND	0.1	0.79	0.8	0.27	0.26
Total event rainfall (mm)	3.2	3.2	3.2	14.4	14.4	14.4	19.6	19.6	19.6
Total event runoff (m^3)	514	640	393	ND	2,857	2,526	6,421	9,731	2,469

Rainfall Intensity Frequency Duration

Rainfall totals for event 2 and 3 were relatively large compared with event 1 (Table 3). The sample events measured were typical compared with rainfall figures from the Average Recurrence Interval (ARI) and Average Annual Exceedance Probability (AEP). The Average Recurrence Interval (ARI) and the Annual Exceedance Probability (AEP) are both a measure of the rarity of a rainfall event (BOM, 2017). Figure 10 shows the various durations and the AEP statistics of how probable this event type is on an annual basis. The rainfalls totals during the continuously monitored period were not greater than the probability thresholds of being equalled or exceeded in any one year (AEP, Figure 10). In terms of likely frequency of rainfall total (i.e. probably number of exceedances per year (EY)), rainfall during event 2 exceeded the totals for <12EY over 3 hours and <6EY over both 6 and 12 hours, while rainfall during event 3 exceeded <12EY over both 24 and 48 hours.

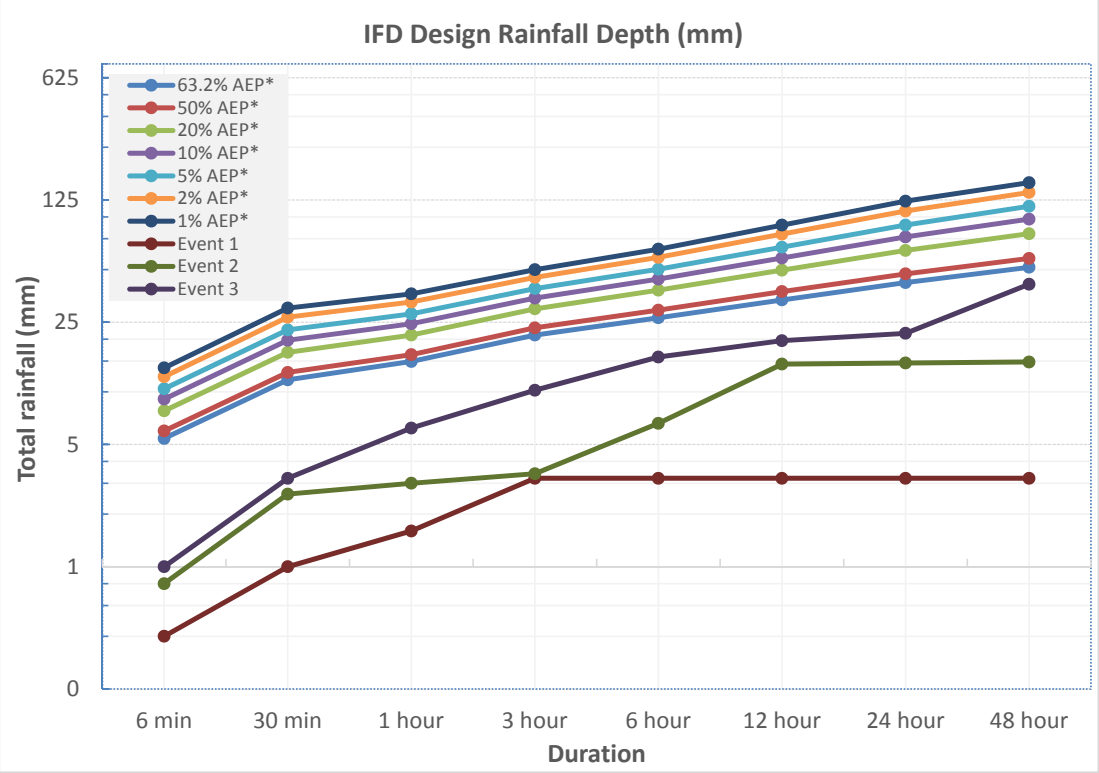

Figure 10 - Rainfall totals for different time intervals over the continuous sampling compared against Intensity Frequency Duration (% probability) and Annual Exceedance Probabilities (AEP).

Suspended Sediment Concentrations

Total Suspended Solids (TSS) concentrations over the sampling events ranged from 3 to 416 mg/L, with a median value of 32.5 mg/L (*n* = 82). Estimated TSS concentrations were derived using spot samples collected from each sub-catchment over a range of flow rates and turbidity and TSS concentrations (Appendices 2 and 3). Results from each catchment are presented below.

Augusta

Stormwater from Augusta Street outfall (West) drain during Event 1 had high concentrations of suspended solids between 5am and 1pm on 29/09/2016, with TSS ranging between 4.7 and 376 mg/L. Rainfall total was 3.2mm at 5:30 am during the run-off event. The second and third events were much larger in terms of rainfall by comparison, with around 14 and 20mm, respectively (Table 3), with resulting flows substantially greater (Figure 11).

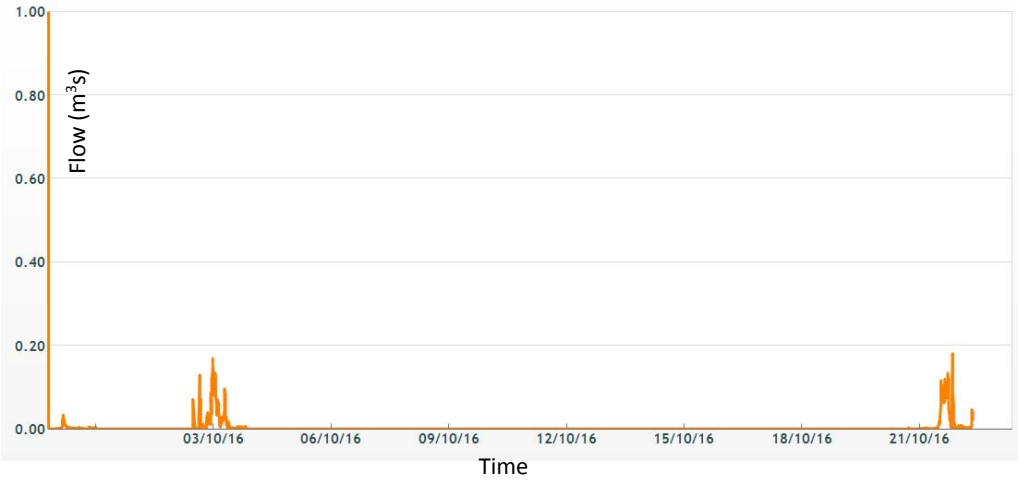

Figure 11 – Augusta Street stormwater drain total flow volumes (m^3s) during three events, 29 Sep, 3 October and 21-22nd October 2016.

Henley

Stormwater from Henley outfall drain had very high concentrations of suspended solids between 5am and 1pm on 29/09/2016, with TSS ranging between 361 and 1,246 mg/L. Corresponding rainfall peaked at 3.2mm during the first run-off event, 14mm for the second and 20mm for the third event resulting in substantially increasing flow rates for each successive event (Figure 12).

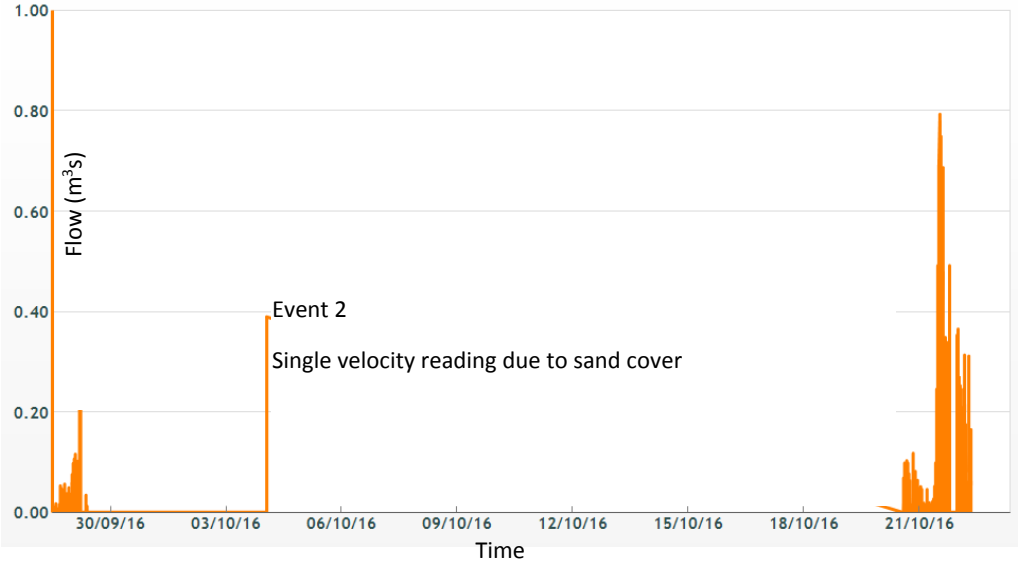

Figure 12 – Plot of flow (m^3s) at Henley over one month.

Ferrero

Storm flows from Ferrero (Hopetoun Creek) outfall drain during Event 1 had high concentrations of suspended solids between 3am and 1pm on 29/09/2016, with TSS ranging between 4.7 and 376 g/L. Corresponding rainfall peaked at 3.2mm during the run-off event. The volume of flow was much greater during the third event than the previous two events (Figure 13).

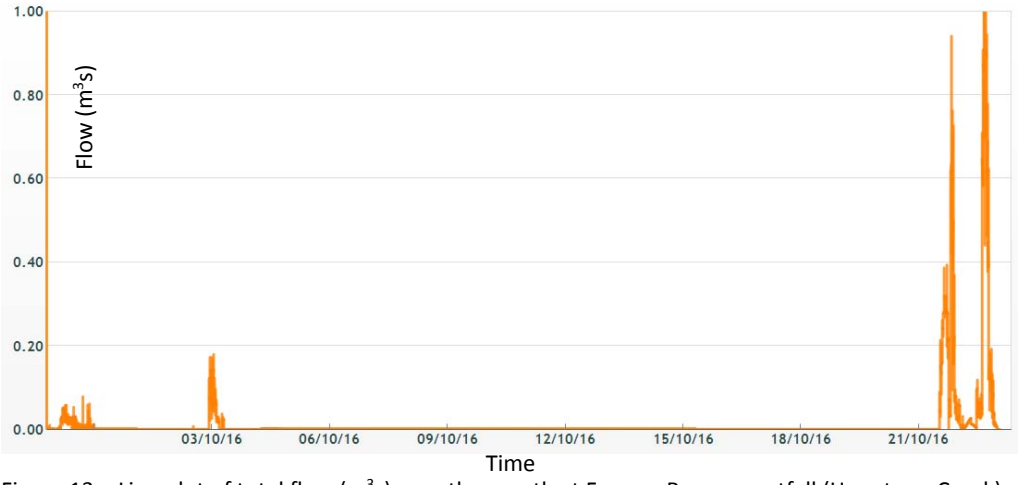

Figure 13 – Line plot of total flow (m^3s) over the month at Ferrero Reserve outfall (Hopetoun Creek).

Total suspended sediment loads

The total suspended solid loads over the three sampling events discharged approximately 14 tonnes of sediment into Balcombe Creek estuary (Table 4). The principal source of these loads was Ferrero, following by Henley, while Augusta had much lower concentrations of suspended sediments.

In terms of percentage, Augusta showed a discharge of between 2 and 11% of the suspended load compared with Ferrero over the three events. Henley had a similar suspended loads compared with Ferrero with around 87% during event 1, while the third event was only around 16%. The flow and turbidity loggers at Henley outfall become covered in sand between the first and second rainfall event, resulting in missing data for discharge volume and estimated TSS, and hence loads could not be estimated.

Table 4 – Total estimated suspended sediment load (kg) during each event based on linear interpolation. Error reported as cumulative uncertainty (±30%).

Site	Event 1	Event 2	Event 3
Augusta	4.2 ± 1.3 kg	166 ± 50 kg	263 ± 79 kg
Ferrero	178 ± 53 kg	1,528 ± 458 kg	10,114 +/- 3,034 kg
Henley	155 ± 47 kg	ND	1,664 ± 499 kg

Yields

The yield of suspended solids from each catchment and each event are presented in Table 5. The highest total yield across each of the three continuously sampled events were from Ferrero (Hopetoun Creek) catchment, followed closely by Henley Ave drain.

Table 5 – Suspended sediment yields calculated for Sep/Oct 2016 with sub-catchment areas.

Sub-Catchment	Cat. Area	Event 1	Event 2	Event 3
Augusta (DEM)	30.3	0.1	5.5	8.7
Ferrero (DEM)	204	0.9	7.5	49.6
Henley (DEM)	60.4	2.6	ND	27.6

Particle Size

Analysis of particle size showed slight differences in particle size between sites and catchments (Figure 14). Overall, Henley had slightly higher sand content that the other sites, while Ferrero had more consistent volumes of fine particles. Augusta was variable, likely dependent on incident rainfall intensity and flow rates prior to sampling. Stormwater carried coarser particles earlier in each of the flow event, likely corresponding to higher rainfall (Figure 14).

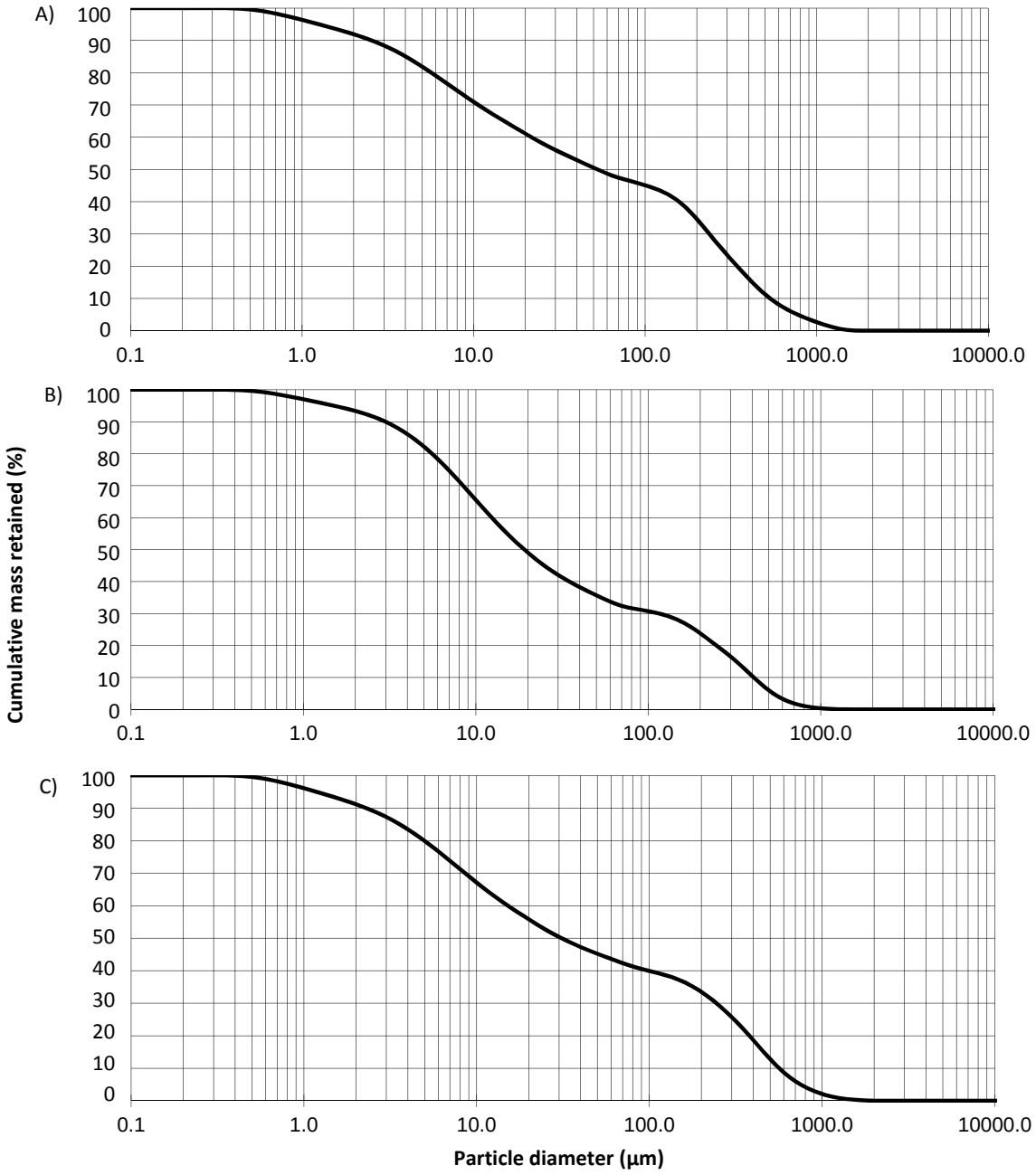

Figure 14 –Mean particle size distribution associated with suspended sediments transported during storm event samples within each sub-catchment, A) Augusta, B) Ferrero and C) Henley.

Suspended sediment samples were primarily characterised as silty sands, sandy silt and silts (Figure 15). Particles from Henley consisted of very poorly sorted very coarse silts (fine silt to coarse sand), with a geometric mean particle size of 38 µm and an average of 190 µm (n = 13). Ferrero sediment samples consisted of very poorly sorted coarse silt (corase silts to medium sands), with a geometric mean particle size of 28 µm and an average of 122 µm (*n* = 9*).* Augusta Street consisted of very poorly sorted very coarse silt (fine silts to medium sands), with a geometric mean particle size of 45 µm and an average of 193 µm (*n* = 7).

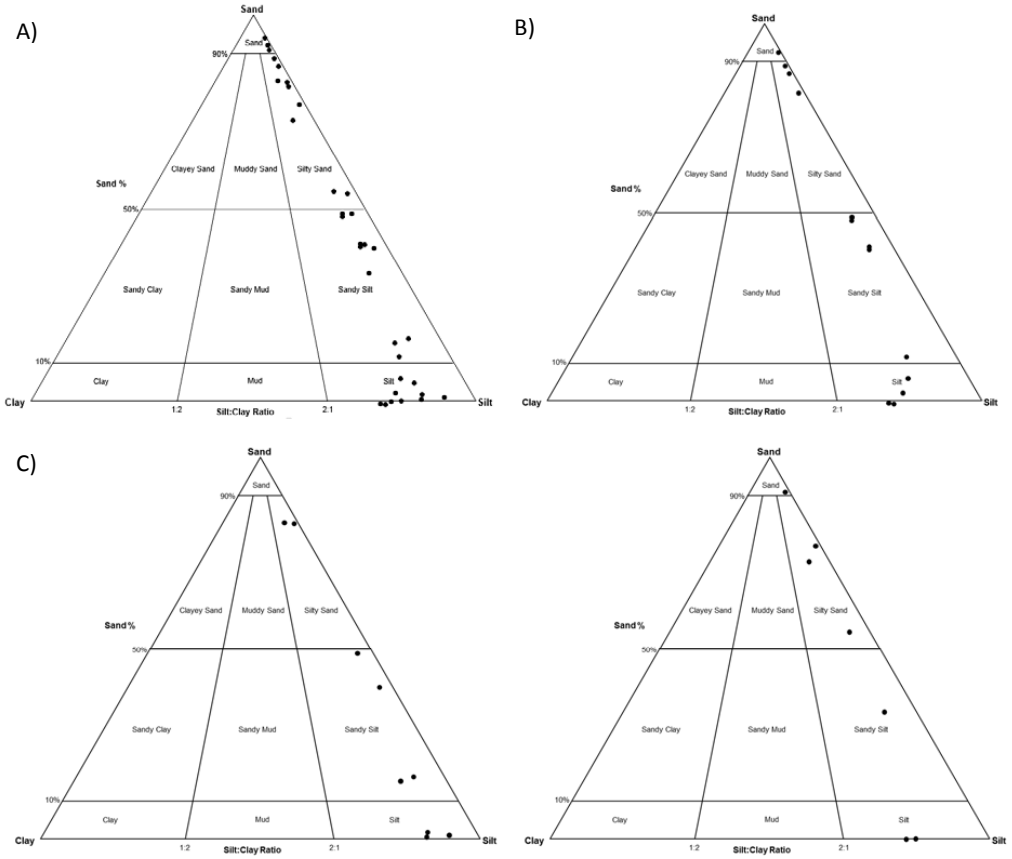

Figure 15 – Textural classification of particle size of suspended sediment samples from A) all samples from three sites, B) Henley Ave, C) Ferrero Reserve and D) Augusta St from samples collected during spot samples and from continuous sampling events (29 Sep – 22 Oct 2016).

Discussion

Suspended sediment inflows

The spot sampling approach used initially in conjunction with MPSC and BERG provided data collection over several rainfall events and allowed for quick estimates of sediment discharge to be made from each of the outfalls. Spot sample event data from monitoring with BERG was able to isolate three key catchments where inputs were consistently higher. These sites were selected for continuous sampling. The involvement of the community and council was a key factor for this initial approach. Randomised instantaneous sampling across multiple catchments assisted with prioritising further suspended loads estimates at a smaller number of sites. This involvement also provided a monitoring regime suitable for ongoing sampling, which could inform changes into the future.

The continuous sampling results showed that there were three catchments with elevated levels of suspended sediment being discharged. Continuous sampling also showed that there was substantial variation between events, with the third event containing much higher loads of sediments at both Ferrero and Augusta than in previous sampling. Comparisons between the continuous data and the instantaneous load estimates showed similar patterns, with Ferrero providing the highest loads of suspended sediments, followed closely by Henley.

Runoff and Rainfall patterns

Overall rainfall during the last event was substantial and resulting in large volumes of suspended sediment being discharges to the estuary. Both the second and third rainfall events had high rainfall volumes during certain periods which were likely to occur between 6 to 12 times each year. Therefore, annual suspended sediment loads are likely to be at least 10 times the total discharges measured over these three events. The relationship exists between suspended sediment concentration and water discharge during flood events can be highly variable, with patterns of first flush in urbanised catchments and a lag behind the peak flows in more rural and forested catchments often observed (e.g. Walling and Web, 1987, Slattery and Burt 1997). Many studies have shown that much of the sediment transported in streams and stormwater is carried during single flood events (Lenzi and Marchi 2000).

The runoff coefficients indicated around one tenth to eight tenths of the rainfall during each period which fell in the catchments flowed directly out into Balcombe Creek. There was more flow runoff from Augusta Street stormwater catchment in the second event, possibly due to antecedent rainfall and saturation of the ground leading up to this event or the overflow of wetted areas. There was substantially less flows from the Ferrero outfall compared with total rainfalls recorded in the catchment during all events, likely due to surface infiltration of vegetated and impervious areas, attenuation of flows through natural and vegetated embankments present along the creek.

Research conducted by CSIRO and BOM (2014) showed that by 2030, modelled mean annual rainfall volume was estimated to decrease up to 8%, while intensity of extreme rainfall events could increase up to 1.6%, resulting in substantially greater flooding events. Simultaneously, average annual temperatures are likely to rise by 1.3˚C and an overall decrease in rainfall levels, which are likely to increase result in higher erosion, greater potential for fires, higher evaporation rates, reduced base-flow and lower standing water levels, exposing sediments. Thus, consideration of future management of sediments takes these changes into account.

Stormwater Sub-Catchment Areas

Stormwater drainage varied within each catchment. Henley has a large stormwater drain which receives inflows from various council drains, with a Rocla CDS unit towards the bottom of the catchment, prior to being discharged directly into the lower estuary. Augusta catchment is interspersed with unsealed roads and has a mix of piped and overland runoff, prior to discharging at one of three large stormwater drains in the mid-estuary reach. The Ferrero outfall catchment largely consists of Hopetoun Creek, with interspersed catchment of bushland, residential and roads, with the last 300 m piped under Ferrero reserve, with a GPT treating water before being discharge into the upper estuary. Urban residential and roads is the predominant land use in these catchments, with drainage pipes bypassing much of the natural surface water flows, and collecting storm runoff from road culverts. Thereby, the resulting stormwater waters are directly discharged to Balcombe Creek estuary and have very limited by way of retardation prior to entering the creek.

A number of important observations were also made of these catchments during the course of this study. The most noteworthy observation was that during high-flow events in the Augusta Street catchment, a large pool of water accumulates on the south-side of the road at the base of the catchment and appears to act as a sediment basin and wetland. This acts to slow the flow of water and limit the volume, rate and timing of discharge out from the Augusta Street drain, and helps to explain the lower volumes of sediment yield being discharged from this catchment. The second important observation was following the first large flow event between the 28 September and 6 October, Henley Ave outfall and estuary channel between the existing silt jetties became clogged with silty sand, and prevented the measurement of turbidity and flow, as the sand was so dense it covered both sensors, and an increase in depth of approximately 5cm. This is despite this catchment having a GPT upstream of the outfall. Furthermore, analysis showed no apparent difference by way of any reduction in sediment volume or particle size between upstream and downstream of the GPT. By comparison, there was limited visual sediment deposition at Ferrero Reserve outfall, suggesting that the existing GPT is removing the majority of coarse particles from Hopetoun Creek catchment.

Several limitations were encountered with accurately characterising storm event flows. The outfall at Augusta Street measured during this study was the western most drain, and is one of three drains at the bottom of Augusta Street. Based on stormwater infrastructure maps, two of the stormwater drains (west and middle) appear to capture similar sized catchments, while the other (east) captures a much smaller catchment area (approximately 9.7 Ha.). As only one of the drains was monitored at any one time, a conservative approach would be to double the total sediment load estimates for this catchment, or to half the catchment area in the calculation of yields, which would result in twice the yield. However, the runoff coefficient values from the three rainfall events suggests that the volume of water discharged from the Western most drain is proportionate to the total volume of rainfall while accounting for some infiltration. Therefore, it is likely that the western most drain provides the majority of flow from this site. This data is in line with observations during rainfall events showing more turbid water and higher flows from the western drain (Appendix 3).

Relationship between suspended solids and turbidity

Due to the high-frequency of sampling required for measuring suspended sediment loads, an easier and more cost effective approach is to monitor concentrations continuously using in situ device for turbidity (Lewis 1996). Data collected from the three main stormwater monitoring sites within Balcombe Creek show a good correlation ($R^2 > 0.77$) between turbidity levels and TSS over a

concentration of ranging 3 – 1,246 mg/L. The measurement of turbidity as a surrogate for TSS is much quicker and more cost effective than collection of individual water samples. Calculating loads using continuous turbidity loggers enables the reduction of uncertainty in computing load estimates compared with infrequent grab sampling. Uncertainty from spot sample estimates of sediment loads can be greater than 100% (Harmel et al 2006). Continuous turbidity logging is more cost effective than automated methods, such as discrete or composite water samples at specified intervals (time, stage or flow weighted), which also require knowledge of the expected rainfalls and resulting flows.

It is extremely important to have an accurate collection between turbidity and measured TSS in order to use turbidity as a surrogate for calculating suspended sediment loads (cf. Lewis 1996). Differences in particle size can affect the turbidity–concentration relationship. Initially, all data were combined to provide a correlation of TSS versus turbidity for estimating loads. However, on further review of the data, catchment specific differences in particle size characteristics and flow evidently were unaccounted and caused substantial inter-catchment variation. It has been shown than turbidity meters respond linearly to sediments from a particular grain size distribution, as well as particle shape and composition, and are more sensitive to fine clay and silt particles than they are to sand (Lewis 1996, Gippel 1995). Therefore, improvements were made by correlating turbidity and TSS for each specific sub-sets of the data (i.e. sub-catchment) to determine the site specific nature of inflows and flow conditions. Logging turbidity during stormwater events should utilise a turbidity meter capable of logging up to 2000 NTU or above to capture exceedingly high turbidity levels.

Best practice and optimisation of monitoring suspended sediments using turbidity requires that data is collected over varying conditions such as variances with rainfall intensity, total and duration, soil moisture levels and antecedent period without rainfall (Gippel 1995, Grayson, Finlayson et al. 1996, Daphne, Utomo et al. 2011). Calibration of turbidity versus TSS was extensively sampled over multiple events and on a site-specific basis to reduce errors and uncertainty in the measurements. Given the importance and focus of accurate estimates of sediment loads, and increased uncertainty from less frequent grab sampling estimates, using turbidity loggers for future sampling is a simple approach for future monitoring of Balcombe Creek. Lewis (1996) found that around 75% of the sediment load was delivered after the turbidity peak, such that the importance of logging intervals both before and after the peak flow should be captured for accurate estimation of loads.

Sediment Particle Transport

Significant variation in loads and particle size of suspended sediment was shown from the data. Sediment particle size is influenced by catchment properties such as soils, roads and land use activities, as well as hydrological variables including water discharge, variation in rainfall intensity, volume and flow patterns and will vary between each rainfall event (Sansalone et al 1998). Particle size from Augusta tended to be slightly coarser than the higher volumes of finer particles from Henley Ave and Ferrero Reserve. Studies have shown that suspended sediment particles from urban stormwater run-off tends to be relatively fine from urban roads (e.g. Walker et al, 1999) and unsealed roads (Lane and Sheridan, 2002). Similarly, while there are many unsealend roads in Mt Martha, the suspended sediments measured in this study contain primarily fine silts to medium sands, while large proportions of coarser sands and gravels are likely transported as bed-load.

The types of particles entering the estuary can have a strong indication of the likely deposition and associated impacts. Coarse sands and gravels from road-base will quickly fall out of the water column once flows dissipate with mixing into slower parts of the upper or lower estuary. While there can be some first flush with higher loads of sediments from within urban areas, the unsealed roads

which are present in the sub-catchments surrounding Balcombe Creek estuary are likely to deliver higher loads and coarser particles with increased rainfall intensity and volumes and subsequently higher water discharge rates and greater mobilisation (cf. Lenzi and Marchi 2000). Some of the suspended sediment particles in samples were primarily fine grained silts and clays, which will continue to remain in suspension even in very low flows and can be transported long distances until flow velocities reduce, such as in the estuary.

Difference in the impacts of sediments are liely for aquatic biota. Fine silts and clay particles are able to bind higher concentrations of chemicals due to their higher specific surface areas relative to size. Finer grained particles are also transported more easily longer distances and are likely to accumulate only once flows recede, such as in the estuary. Meanwhile, coarse sediments are likely to increase channel aggradation and accretion rates, settling adjacent to their inputs and reducing water depths and flows (Nelson and Booth 2002).

The majority of particles flowing from the three drains consist of fine silts to medium sands. These particles are unlikely to be removed by standard GPTs. Henley Ave has an existing GPTs which appears to be inaffective, likely due to clogging from high loads of coarse sediments, which would require frequent and costly maintenance after each storm event to ensure it is functioning. Hopetoun Creek catchment is three to six times larger than Henley or Augusta. Suspended sediments from Ferrero Reserve are generally finer than Henley Ave, which tends to have a higher proportion of sand content. Options for reducing the loads of these include swales, disconnecting urban runoff through integrated infiltration systems. Construction of a sediment pond is likely to require a much greater area of land and higher costs. The suitability of the area for these treatment options and their respective maintenance requirements should be considered as part of a cost benefit approach.

While Hopetoun Creek contributes the highest sediment load to the upper estuary, in terms of yield, this catchment contributes similar volumes of sediment per square meter to Henley Ave catchment. Furthermore, sediments from Ferrero are predominately fine particles, and are likely to flow in suspension to the lower estuary and discharge during high flows when the estuary mouth is open. Meanwhile, Henley Ave continues to input medium to coarse silts and sands directly into the lower estuary. Both catchments will remain as key sources until further treatment within the catchments, such as revegetation, removing direct stormwater flows by vegetated swales or additional stormwater infrastructure such as sediment ponds.

Average settling rates for fine silts (3 to 20 µm) can be 0.1 m per hour, while for medium to coarse sand particles (>250 µm) it can be greater than 1m per minute (Lawrence and Breen 1998). In flowing water, these fine sediments will likely have been transported to the estuary zone, and deposit once flows recede. Particles larger than gravels, as well as aggregates and coarse sands will flow down the catchment and deposit into the creek and estuary in bed-load transport, as their weight it too heavy to keep them in suspension. Samples collected from stormwaters using grab samples, autosampler or turbditiy logger are unlikely to provide a measure of bed-loads. However, there can be large variation in size distributions and fall velocities between sites and storm events, such as those from urban studies across Melbourne (Lloyd et al, 1998; Lloyd and Wong, 1999). It is likely that medium to coarse sands will deposit directly downstream of outfalls, and will be transported in the bed-load during high flows following storms. Suspended particle residence times are likely to be very short, given that the velocity estuarine waters was typically less than <0.1 m/s when measured during spot sampling surveys.

Sediment transport beyond the mouths of these stormwater outlets is beyond the scope of this study and would involve more complex data collection and modelling processes to understand the flow and velocity of Balcombe Creek and estuary during peak flows and examine the fate and behaviour of sediment discharge downstream. The flows and sediment loads from this catchment has not been compared with total discharge volumes of fine sediments entering the estuary. The catchment loads of fine suspended particles may be relatively high. The proportion of suspended sediment to total sediment load can be highly variable, and has been reported to range from 20% to 90% for upland rivers and from 70 to 95% for lowland rivers based on a number of published studies (Lenzi and Marchi 2000, Billi et al 1998, Walling and Webb 1987). The relationship between suspended versus bed-load sediment delivery is of great importance, and would indicate the total volume of sediment load. The grain size of sediments in the estuary trapped downstream of each inlet can indicate the dominant particles and respective loads being deposited from the catchment, and also help identify properties of sediments contributing the greatest total volume, as well as associated contaminants bound to sediment particles. Additional spatial assessment of surface sediments, their particle size and associated bound contaminant residues would help to further discriminate catchment inputs.

Stormwater management infrastructure

Melbourne Water is generally responsible for the installation and maintenance of stormwater drainage systems for catchments greater than 60 hectares, while Council is responsible for assets with smaller catchments. Information collected by Council and Melbourne Water on sediment management is important to assess the performance of systems such as GPTs, street sweeping, in addition to the influence of regrading unsealed roads and new developments. Both council and Melbourne Water have invested in a number of existing stormwater treatment systems to reduce the volumes of litter, sediments and other pollutants which would otherwise impact on the quality of receiving water and sediments.

The types of infrastructure that could be considered for future management include constructions of vegetated swales, integrated infiltration systems, stormwater treatment and harvesting, street tree irrigation, permeable paving, road surface sprays, road sealing, sediment ponds and upgraded GPTs. Mornington Peninsula Shire Council have completed an evaluation and priority process to address the capacity building opportunities. This is supported by earlier work from Water Technologies (2010) who proposed various Water Sensitive Urban Design (WSUD) treatment options across the catchment for stormwater infrastructure using modelling to estimate sediment and nutrient loads from three catchments (Henley, Latrobe and Augusta), providing an evalution of the costs and treatment potential.

While urbanisation may reduce erosion rates from some surfaces, through sealing of roads and parking areas, it can also increase channel erosion further downstream and increase the severity and frequency of high flows (Nelson and Booth 2002). Roads can contribute up to 70% of the total impervious area in an urban catchment, leading to increased volumes of stormwater to manage and/or treat (VicRoads, 2013). The majority of the roads in the Henley Ave catchment are already sealed, and are likely contributing smaller volumes of sediment from the catchment, while increasing flow rates downstream. The Augusta Street catchment relatively steep, and sealing roads would also require substantial flow reduction systems, as high flow volumes would otherwise be likely to cause scouring and impacts further downstream or changes at the outfall. A natural accumulation of water, acting as a sediment wetland, was observed in the Augusta Street

catchment. This served to reduce the volume and timing of stormwater run-off and sediment delivery to the creek (see photo, Apppendix 1).

Existing stormwater treatment infrastructure is limited to a Rocla CDS GPT at the bottom of the Henley catchment. The quoted performance of these units suggest they can retain up to 95% of particles >215 um (Rocla CDS, 2017). However, capacity for sediment retention relies on the treatment chamber being clean. Otherwise, they are susceptible to re-suspension and loss (Rocla CDS, 2017). Working limitations of these devices can include site hydraulics, velocity impact, tidal or backward levels and overdue maintenance (Rocla 2017). The particle size information and suspended concentration data from this site would suggest this unit was clogged and not working during the period of the instantaneous spot sampling, likely due to the chamber being full and high-flows bypassing treatment. The size, maintenance and condition of this asset and its capacity for removing sediment loads from this catchment should be reviewed in line with the benefits and associated costs and time involved to make changes. Data from Council and Melbourne Water managed stormwater assets can provide a useful measure of the sediment loads, timing and frequency required to properly maintaining these devices.

Further opportunities for installing stormwater treatment measures should be identified and optimised by combining estimates of flow with measurement of pollutant concentrations. In particularly, the volume, timing and velocity of stormwater entering waterways should be managed to minimise adverse impacts on receiving waters (e.g. Balcombe Creek estuary, Port Philip Bay Phillip Bay), and reduced loss of bank stability, changes to flow regimes and loss of in-stream aquatic flora and fauna. Essentially, these devices should attempt to mimic the riparian vegetation, stream channel meanders, dissipating flow and increasing the transit time to allow a reduction in the velocity and timing of sediment and flows directly draining to the estuary. Options for reducing suspended sediment include decentralised water sensitive urban design, vegetated swales, sediment pond and wetlands and surfacing of roads. While sealing roads would reduce the available volume of direct sediment run-off, higher flow rates would also result, requiring additional treatment to limit erosion and discharge of pollutants further downstream.

Urban pollution

In addition to sediments, gross litter and contaminants bound to the surface of particles are washed from catchments and can impact the estuarine ecosystem. Objectives from the Urban Stormwater Best Practice Environmental Management Guidelines contain environmental stormwater standards, focusing on reducing mean annual loads of stormwater pollutants (Victorian Stormwater Committee, 1999). Decreasing the volume of sediment is important to protect receiving waterways in Balcombe Creek, however, the impact from other stressors should be considered.

Urbanisation has a major impact on run-off, resulting in significant increase in both the volume and peak discharges of stormwater events, which are primarily due to the land use, slope and relative density of impervious surfaces within catchments (Engineers Australia 2006). While the loads of sediment were the focus of this study, the types of pollutants bound to sediments from urban stormwater include gross pollutants, metals, hydrocarbons, pesticides and micro-organisms from surfaces, roads, household products and pets (NRMMC-EPHC 2006).

Correlations between imperviousness, drainage connection and other catchment can be highly correlated with the total loads (e.g. Hatt et al 2004), however they may not clearly indicate the resulting concentrations of suspended sediments. For concentrations of pollution in sediments,

however, it has been shown that the types of land use within catchments (e.g. industrial, rural residential) can highly influence the resulting sediment quality in receiving waterways (Marshal et al 2016, Sharley et al 2017).

Sediment quality monitoring for Melbourne Water at Balcombe estuary and creek has shown concentration of metals have remained relatively stable over the past seven years (Sharp and Sharley 2015, Sharley and Sharp 2017). Trace residues of pesticides have been detected on occasion, likely resulting from spraying to control termites using synthetic pyrethroid insecticides. These contaminants may further impact on the ecosystem health by sub-lethal or direct toxicity to invertebrates. Earlier studies conducted by CAPIM were unable to determine any major source within sub-catchments, where higher concentrations of insecticides occurred (CAPIM, unpublished data). Concentrations of heavy metals measured in surface sediments in 2017 were below the trigger values of sediment quality guidelines, suggesting metal contamination is unlikely to cause toxicity to benthic organisms. However, certain contaminants in sediments such as zinc and petroleum hydrocarbons may exceed clean-fill guidelines for disposal and this should be considered in future decisions for sediment management if sediment ponds are considered.

Furthermore, a large amount of gross litter was observed in the estuary during this study, particularly with prevailing westerly winds and high water levels washing debris up to the silt jetties enclosing Henley Ave stormwater outfall (Appendix F.10). The amount of debris suggests there are urban stormwaters entering the estuary without preventative controls such as gross pollutant traps (e.g. Mirang Ave, Appendix F.8), or substantial litter from other soruces. Some of the litter entering the estuary is likely to be trapped in sediments, while the remainder could be washed to the bay, presenting a potential for ingestion, entrapment of wildlife and accumulation of waste. Reducing sources of gross pollutants should be targeted to improve the condition of Balcombe Creek estuary.

Limitations and Uncertainties

Uncertainties due to data collection in pollutant and flow data have been previously reported in the literature, with possible cumulative uncertainty in the range of 18 to 53% when applied to the prediction of loads using similar methods (De Silva 2003; Harmel et al 2006). The cumulative uncertainty from this study was limited by the use of a strong correlation between turbidity and TSS, which reduced the time-step for collecting data (2 min), and hence the variability over the total flow event is captured at a higher resolution. With reference to the observed flow, the noise in the velocity data and backflows from estuarine inflows may have limited the accuracy of some of the measurements. The difficulty with logging flow at one site was highlighted at Henley outfall where the logger become covered in sand between the first and second logged rainfall events. Furthermore, the infilling of the estuary between events 1 and 2 at all sites may have also contributed to a reduced level of precision, with velocity readings close to the limit of measurement, caused by some backflow, flow retardation and the potential for some stratification. Therefore, the overall estimated uncertainty for sediment loads was approximated to be 30% in light of these observations.

Conclusions

This study found high concentrations of sediments were discharged from three sub-catchments to Balcombe Creek estuary during high rainfall events.

The instantaneous loads estimates showed:

- Suspended sediment discharged ranged between 0.2 to 684 grams per second
- Hopetoun Creek (sub-catchment Ferrero) recorded the highest discharge with 684 grams per second
- Uralla measured the lowest overall discharge from all events, ranging 0.3 to 2 grams per second over the four events, and is an unlikely source of large volumes of sediment
- Mirang was generally lower than Ferrero, Henley and Augusta, except for one event with 56 grams per second of suspended sediment, while otherwise ranged from 2 to 19 grams per second
- Loads from Augusta (West) outfall were the third highest, and ranged between 10 and 39 grams per second over three events

Based on the estimated total loads and yields of suspended solids from the three sub-catchments during 28 Sep – 23 Oct, with rainfalls ranging from 3.2mm to 21.2mm, it was shown that:

- Around 14 tonnes of suspended sediments were discharged into Balcombe Creek estuary
- Hopetoun Creek (sub-catchment Ferrero), with a catchment area of 204 Hectares, representing around 70% of the total monitored area, generated the highest suspended sediment load and had the highest yield of sediment per square metre
- The lowest estimated loads and yield of sediment per square metre were from Augusta

Following this investigation of flow monitoring and event data over a three week period, there are several key recommendations:

- Sediment management for Balcombe Creek estuary should be prioritised based on the findings of suspended sediment loads and yields
    - Henley Ave should be investigated as a priority site and sub-catchment:
        - Large volumes of sands and silts flow directly into the estuary at this site;
        - The existing GPT should be reviewed;
        - Bed-load transport should be estimated,
        - Further treatment options should be reviewed and prioritised.
    - Hopetoun Creek (Ferrero Reserve) should be investigated for stormwater treatment such as revegetation and construction of vegetation swales
    - Augusta Street catchment is considered a lower priority, however estimating bed-load transport may indicate a need for improvements in stormwater treatment
- Water and sediment quality montiroing should continue and transport of sediments in bed-load and other pollutants including gross litter and heavy metals should be considered as part of future monitoring to improve the environment and amenity for the estuary.
- It is important to address stormwater improvements, either through changes in the catchment, additional treatment, and/or slowing water flows before entering the estuary to protect Balcombe Creek, with the key catchments of concern being Henley and Ferrero.

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Appendix 1 – Sampling locations

Sub-Catchment Photos

Appendix F.2 - Henley Ave stormwater outfall at the start of logging and during inundation of the estuary (5 Oct 16) following high rainfall events.

Appendix F.3 - Ferrero Reserve (Hopetoun Ck) outfall (left) and draining to Balcombe estuary (right).

Appendix F.4 - Augusta Street stormwater outfalls during heavy rain event (5 July 2016).

Appendix F.5 – Natural wetland downstream on southern side of Augusta Street and water from inflowing channel during high rainfall event (19 Aug 16).

Appendix F.6 - Mirang Ave stormwater outfall during heavy rain event (5 July 2016).

Appendix F.7 - Balcombe Creek estuary facing east (upstream), and west towards Port Phillip Bay, standing from sediment quality sampling site.

Appendix F.8 – Uralla Drive outfall (left), and overflow channel draining to Balcombe Creek (right).

Appendix F.9 – Henley Ave outfall channel blocked up with sand between the silt jetties

Appendix F.10 – Gross pollution accumulated on Henley Ave silt jetty, Balcombe Estuary west-facing

Appendix 2 – Detailed Methodology

Rainfall

Rainfall measurements were provided by Melbourne Water and derived from the closest pluviograph (tipping electronic rain gauges), which is located at Devil Bend Reservoir [Station ID: 586206; -38.2769, 145.1] (Melbourne Water, 2016), which lies 6.7 km to the east of Mt Martha. The rain gauge readings were in 6-minute intervals with recordings in 0.2mm tips.

Ideally, local rainfall should be sourced within 2 km from the sampling sites to provide high accurate estimates of rainfall totals, intensity and timing (Maheepala et al. 2001). However, only one rain gauge was available within close proximity to the catchment.

Small spatio-temporal variations in the volume and timing of rainfall across the area were considered by calculating rainfall totals from other sites within proximity to the sampling location using the inverse distanced weighted squared method (Ladson 2008; Li & Heap 2008)

The inverse distance weighted (IDW) method estimates values of an attribute (i.e. rainfall) at an un-sampled point using values at sampled points weighted by an inverse function of the distance from the point of interest to the sampled points. This method assumes that measurements closer to the un-sampled site are more similar than those farther away. The unknown rainfall at point R_0 can be found using the following equations:

Equation (1) $$R_0 = \sum_{i=1}^{N} \lambda i \, Ri$$

Equation (2) $$\lambda i = \frac{1/di^P}{\sum_{i=1}^{N} 1/di^P}$$

where:

di = the distance between the site and each rainfall station,

P = a power parameter (see below), and,

n = number of rainfall stations used in the estimation.

Power is general assumed as 2 and the resulting method is often called inverse square distance or inverse distance squared (IDS) (Zhu & Jia 2004; Li & Heap 2008; Lin & Yu 2008).

Correlation was conducted to compare the strength of associations between a local rainfall gauge with a limited data set from 2015 at hourly and daily time-steps (Ferrero Reserve, Mornington Peninsula Shire Council). Adjustments were made for the power (between 0.1 and 5). Results indicated a poor correlation ($R^2 < 0.5$) between the derived IDW rainfall estimates (using all suitable power variables) and daily data from Ferrero, while a better relationship ($R^2 > 0.6$) was shown between Devil Bend rainfall gauge and Ferrero Reserve. Therefore, Devil Bend was used as the primary rainfall gauge.

Flow measurement

Three ISCO low-profile Acoustic Doppler Current Profilers (ADCPs) were deployed at the outfalls from each of the main stormwater drains to be investigated. These were programmed to log water depth, water velocity and calculated water flow rates at one minute intervals. Data was downloaded at the conclusion of the sampling.

The flow meters can measure water depth down to 1 - 2 cm, however they can be inaccurate at very low levels. Velocity measurements of less than 0.01m/s are not recorded, and at low water depths the Doppler shift may not be submerged and therefore no reading was taken in some instances at lower flows. The device is able to measure velocity over the range of 0.01 – 6.1 m/s, with a reported accuracy of ±2% of reading, while published research indicates typcailly uncertainity ranging between 2- 20% for discharge calculated from flow by area (e.g. harmel et al 2006). The minimum reported depth at which the pressure sensors can operate is 2 cm, however, operationally it is likely to be closer to 3 – 3.5 cm for accuarate results.

The logging interval chosen was 1 minute for detection of pulse events and then data was aggregated to 6 minute averages to coincide with rainfall and turbidity logging intervals. The pressure sensor was zeroed or calibrated against the current water depth to the nearest millimetre using a steel ruler prior to installation and logging at each site. Sensor adjustment was made by checking the water height and entering this using the proprietary software. Several additional measurements of water level were made during the course of the investigation.

At Ferrero (Hopetoun Creek) the minimum depth to be able to measure velocity was between 0.037 and 0.044 m, which was prior to or after flow events. At these levels, several outliers were detected and removed from the data prior to analysis. For total discharge at Ferrero and Henley outfall drains, flow rating curves were derived from accurate discharge data as in both instances errors were observed in the logging data later during events due to disturbance of the ADCP and/or sedimentation. The accurate flow rating curves were used for error checking of the data.

Rainfall Run-off Coefficient

To examine that volume of rainfall to total flow for each event, and exclude events relating to other sources of discharge or equipment malfunction, the rainfall-runoff coefficient was calculated using:

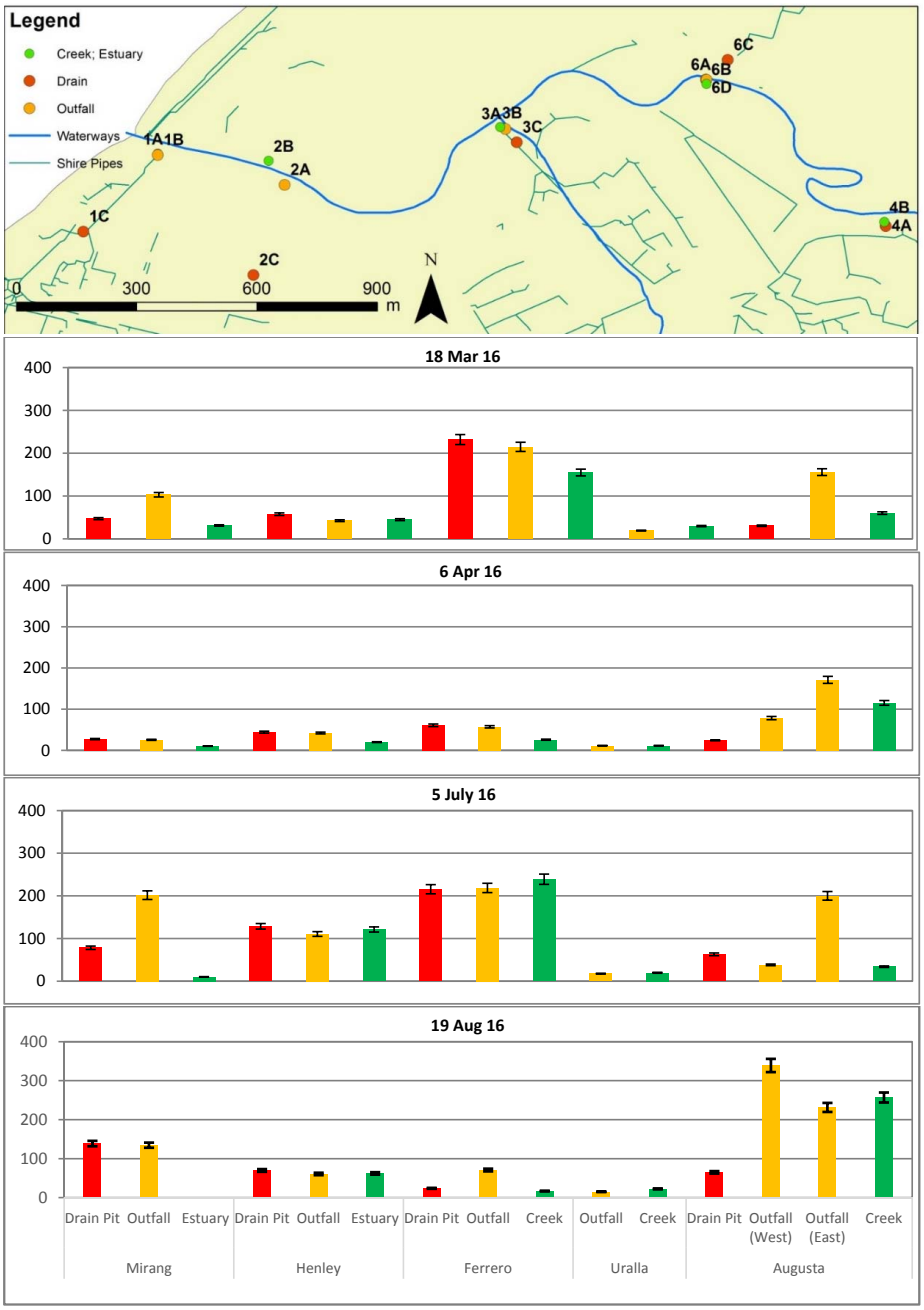
Equation 1

$$rc = \frac{v}{r \text{ X A}}$$

Where rc is the run-off coefficient, r is the rainfall (m), A is the catchment area (m2) and v is the total runoff volume (m^3). A coefficient >1 would indicate more flow than suggested by rainfall, however, it could also indicate that the observed rainfall data inadequately describes local rainfall patterns (Devil Bend ~5km) (Mahepala 2001). Possible causes of higher *rc* include rainfall events with high spatial variability, such as thunderstorms which affect different areas of the catchment, while lower *rc* values could result from infiltration, stormwater retardation or lower rainfalls at areas of the catchment.

Measurement of water quality

Instantaneous Turbidity Measurements

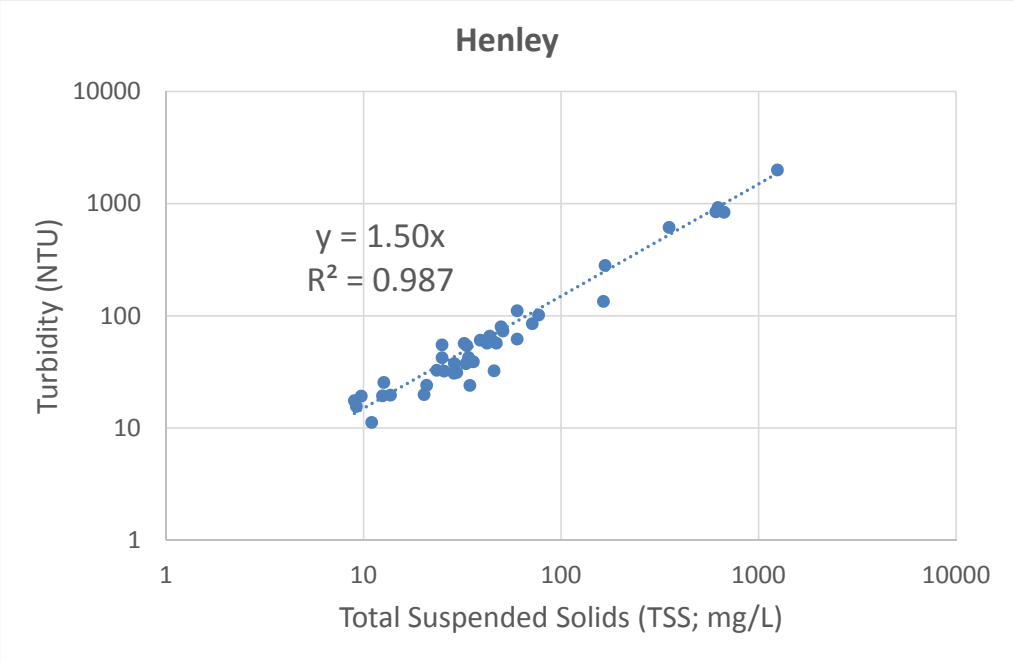


A.1 – F.1 – Map and plots of spot turbidity (NTU) measurements from four events. Mean ± S.E.

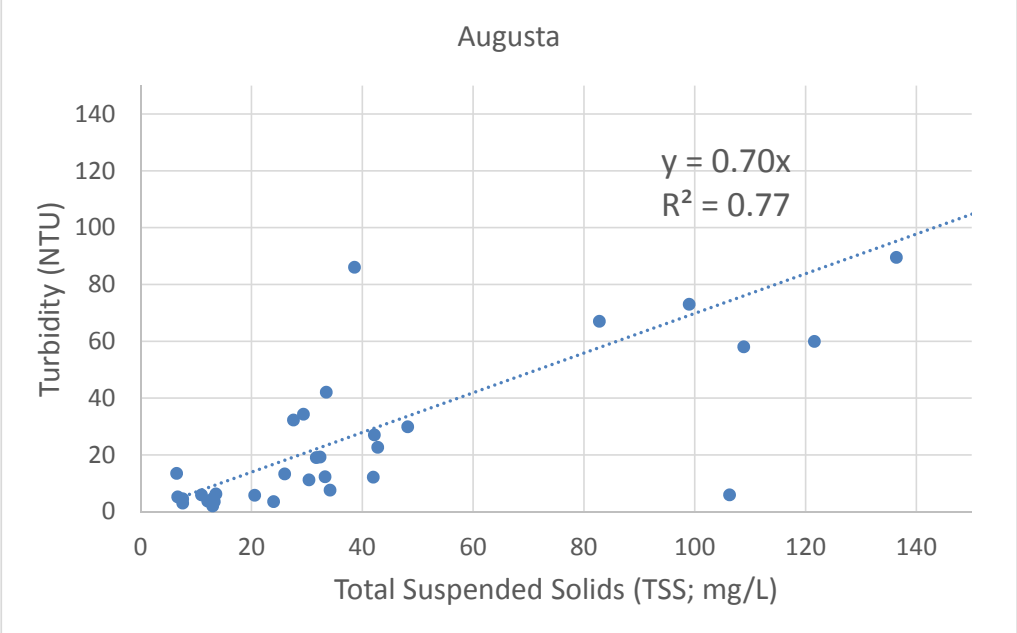
Correlation of Turbidity with Suspended Sediments

Parameters monitored as part of the program were total suspended solids (TSS) (discrete or composite time-based sampling). Turbidity, conductivity, temperature and pH were also recorded at two-minute intervals using a HANNA HI9829 multi-parameter logger. Samples for TSS were analysed using standard laboratory techniques for total suspended solids (APHA 2564-D) by gravimetry. The detection level was <1 mg/L. Precision was assessed by measurement of duplicates, accuracy was assessed by spike recovery, and reporting limits were determined by measurement of blanks, with 1 quality sample analysed in every batch of 10 samples.

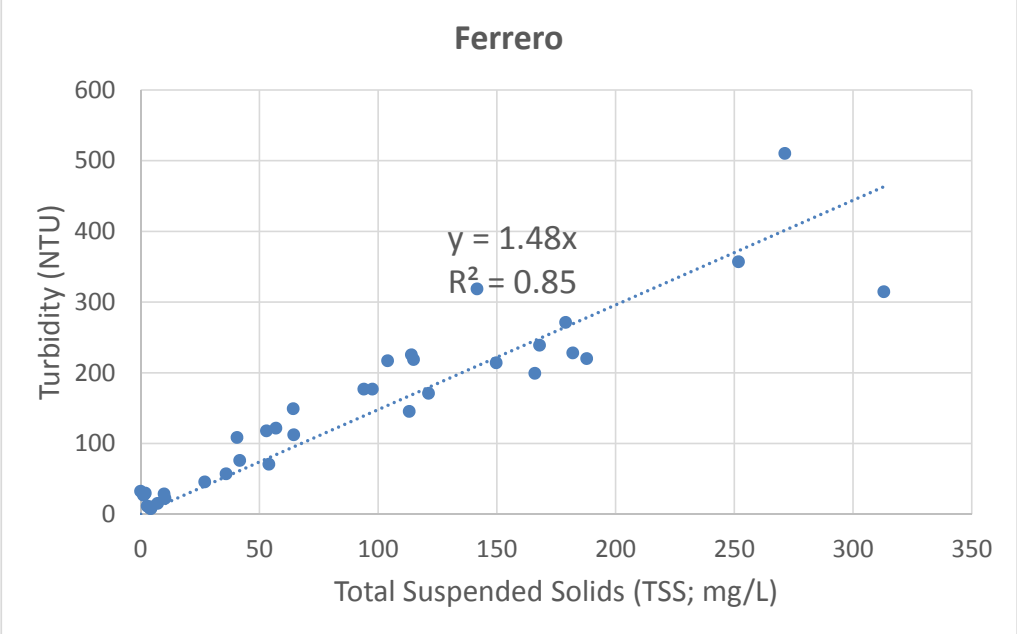
The turbidity readings were calibrated against TSS concentrations for each site and exhibited high correlations. Regressions were determined using SPSS (version 24) and outliers were retained. Uncertainity in the models was deteremined from the standard errors of the slope.



A.2 – Figure 1 – Regression of suspended sediment and turbidity for Henley Ave ($P < 0.001$, df = 1,39, $SE_b = 0.03$, *u=3.6%*).



A.2 – Figure 2 – Regression of suspended sediment and turbidity for Augusta Street ($P < 0.001$, df = 1,37, $SE_b = 0.1$, u=18%).



A.2 – Figure 2 – Regression of suspended sediment and turbidity for Ferrero Reserve ($P < 0.001$, df = 1,37, $SE_b = 0.09$, *u=13%*).

Appendix 3 – Loads estimation summary data

Spot Samples

A.3 – Table 1 – Instantaneous flow and total suspended sediment (TSS) loads for all sub-catchments measured on four separate random grab sample events. Probable Error (±30%). See below.

Catchment	Asset	Date	Depth (cm)	Velocity (ft/s)	Diameter (cm)	Flow (m^3s)	TSS (mg/L)	Discharge (g/s)
Mirang	Outfall	18/03/2016	22	1	62	0.315	43	14 ± 4
Mirang	Outfall	6/04/2016	15	0.6	62	0.111	19	2.1 ± 0.6
Mirang	Outfall	5/07/2016	20	0.6	62	0.166	*34*	5.6 ± 1.7
Mirang	Outfall	19/08/2016	35	0.9	62	0.518	109	57± 17
Henley	Outfall	18/03/2016	20	7.3	87	0.247	34	84 ± 25
Henley	Outfall	6/04/2016	11	0.6	87	0.086	25	2.2 ± 0.7
Henley	Outfall	5/07/2016	10	4.4	87	0.547	60	33 ± 10
Henley	Outfall	19/08/2016	32	0.8	87	0.520	39	20 ± 6
Ferrero	Outfall	18/03/2016	22	9.7	75	3.436	199	684 ± 205
Ferrero	Outfall	6/04/2016	13	5.7	75	0.957	36	35 ± 11
Ferrero	Outfall	5/07/2016	15	7.3	75	1.505	168	253 ± 76
Ferrero	Outfall	19/08/2016	4.5	3.4	75	0.121	54	6.5 ± 2
Uralla	Drain Pit	18/03/2016	41	0.1	*90*	0.093	22	2.0 ± 0.6
Uralla	Drain Pit	6/04/2016	37	0.05	*90*	0.040	8	0.3 ± 0.1
Uralla	Drain Pit	5/07/2016	27	0.05	*90*	0.026	8	0.2 ± 0.1
Uralla	Drain Pit	19/08/2016	32	0.3	*90*	0.199	4	0.8 ± 0.2
Augusta	Outfall (East)	18/03/2016	5	0.05	110	0.003	83	0.2 ± 0.1
Augusta	Outfall (East)	6/04/2016	5	0.1	110	0.005	62	0.3 ± 0.1
Augusta	Outfall (East)	5/07/2016	4	0.05	110	0.002	*27*	0.05 ± 0.0
Augusta	Outfall (East)	19/08/2016	46	*0.05*	110	0.062	179	11 ± 3
Augusta	Outfall (west)	18/03/2016	ND	ND	110	ND	ND	ND
Augusta	Outfall (west)	6/04/2016	15	0.8	110	0.204	89	18 ± 5
Augusta	Outfall (west)	5/07/2016	18	0.4	110	0.133	75	10 ± 3
Augusta	Outfall (west)	19/08/2016	6	2.3	110	0.152	253	39 ± 12

Continuous Sampling

Loads estimates were based on the software in the Water Quality Analyser (version 2.1.2.4) (eWater, 2011). The choice to use linear regression as the method for estimating loads was based on a decision tree to assess the optimal techniques based on the available data in the program. Notwithstanding this, the Beale Ratio method was also suggested, and provided similar results, but is preferred where data are only collected on one side of the hydrograph.

A.3 – Table 2 - Total estimated loads over the three events using several methods. Error is reported as cumulative measurement of uncertainty (±30%). See below.

	Units kilograms			
	Parameter	**Event 1**	**Event 2**	**Event 3**
Augusta	Total flow	393.23 m^3	2525.982 m^3	2469.414 m^3
	Start date	28/09/2016 7:09	2/10/2016 11:27	20/10/2016 4:51
	End date	30/09/2016 12:55	3/10/2016 9:15	22/10/2016 9:03
	Time span	1d, 5h, 46min	1d, 9h, 48min	1d, 16h, 12min
	Loads Beale Ratio	14.5 +/- 4.3 kg	166 +/- 50 kg	263 +/- 79 kg
	Loads Linear Interpolation	**4.2 ±1.3 kg**	**165.9 ±49.8 kg**	**263 ±79 kg**
	EMC Beale Ratio	36.851 mg/L	65.884 mg/L	106.6 mg/L
	*EMC Flow * Concentration*	*6.343 mg/L*	*22.255 mg/L*	*45.2 mg/L*
	EMC Linear Interpolation	10.7 mg/L	65.7 mg/L	106.4 mg/L
Ferrero	Total flow	640 m^3	2857 m^3	9731 m^3
	Start date	29/09/2016 1:15	2/10/2016 19:27	21/10/2016 13:22
	End date	30/09/2016 9:21	4/10/2016 5:45	22/10/2016 9:01
	Time span	20h, 6min	1d, 10 h, 18 min	1d, 18 h, 30min
	Loads Beale Ratio	178 ±53 kg	3,568 +/- 1070 kg	11,256 ± 3,377
	Loads Linear Interpolation	**178 ±53 kg**	**1,528 +/- 458 kg**	**10,114 ± 3,034 kg**
	EMC Beale Ratio	263 mg/L	1,249 mg/L	NaN mg/L
	EMC Linear Interpolation	**263 mg/L**	535 mg/L	**1,003 mg/L**
Henley	Total flow	513.9 m^3	ND	6420.78 m^3
	Start date	28/09/2016 11:59	ND	21/10/2016 9:00
	End date	29/09/2016 10:54	ND	22/10/2016 8:27
	Time span	22h, 55min	ND	1d, 1h, 48min
	Loads Beale Ratio	221 ±66 kg	ND	**1,658 ±497 kg**
	Loads Linear Interpolation	**155 ±47 kg**	ND	**1,665 ±500 kg**
	EMC Beale Ratio	39.1 mg/L	ND	NaN
	EMC Linear Interpolation	**27.5 mg/L**	ND	**102.8 mg/L**

Estimates of Uncertainty in Measurements

Cumulative probable uncertainty, represented by the probable error, for streamflow and nutrient and sediment storm loads for worst case, best case, and typical scenarios are reported in the literature. Typical scenarios for cumulative uncertainty range from best case of 7%, average of 18% and maximum error of 53%, while grab sampling (single point, random time) uncertainty measurements for TSS were estimated at >100% (Harmel et al 2006) and >50% (Slade 2004). Errors from discrete sampling with 30 minute intervals and up to six composite samples was estimated to range from −32% to 25%, more so with an interval of 120 min, ranging −65% to 51% with the same number of samples (King and Harmel 2003).

To determine cumulative uncertainty, previous authors have compared time or flow-interval sampling using discrete and/or composite samples and linear interpolation to determine 'true' loads and compare against alternate sampling strategies (Harmel et al 2006l; Harmel and King 2005) and turbdidity estimates (Lewis 1996). Lewis (1996) reported probable errors in loads estimates using linear fit of turbidity versus TSS (R^2> 0.98) at 10 min intervals between 1.9 and 7.7%. Higher errors observed in regression models for this study were accouanted for in the uncertainty estimate below.

Sampling using a time-interval sampling strategy with short collection intervals (5 minutes) and discrete sampling can provide uncertainties as low as 0 – 11%, while uncertainty involved with analysis of suspended solids can range between -5 and 6% (Harmel et al 2006). Other variance can occur from single sampling points (single sample intake) during automated sampling, with median uncertainty for TSS ranging from 14% to 33%, with an overall median of 20% (Martin et al. 1992).

The cumulative probable uncertainty results from streamflow measurements has previously been estimated to range from 3% at best, typically 6 – 19%, and higher 42% for worst case scenarios (e.g. Manning's equation, unstable stage-discharge relationship, shifting channel). The velocity-area (direct discharge) method in this study was likely to have an uncertainty between 3 - 20%, with typical (average) conditions around 6%.

Total cumulative uncertainty was calcaulated using published values to estimate the potential sources of error (±%) by propagation of errors by the equation (Taylor theorem, Harmel et al 2006):

$$E_P = \sqrt{\sum_{i=1}^{n}(E_1^2 + E_2^2 + \ldots + E_n^2)} \quad (1)$$

where, E_P = probable range in error (±%), *n* = total number of sources of potential error. The probable error (E_P) for this study was estimated as ±30% and used as the error term in this report. Average error values in the Table below were used to calculate cumulative uncertainty (E_P).

Source of Error	Uncertianty	Method	Mean Error	Reference/s
Velocity-area	2 – 20%	Doppler	8%	Harmel et al 2006*
Single sampling point	14 – 33%	Logger	20%	Harmel et al 2006*
Minimum Flow Threshold	1 – 5%	Judgment	3%	Harmel et al 2006*
Time-interval	0 – 11%	6-minute	5%	Harmel et al 2006*
Sample analysis	0 – 10%	Gravimetric	5%	Harmel et al 2006*
Loads by turbidity	2 – 8%	Regression	8%	Lewis 1996
Slope Turbidity vs TSS	4 – 18%	Regression	12%	This study, residuals

*cited in Harmel et al 2006, compiled information from several authors to report these values.

Appendix 4 – Quality Assurance and Quality Control

Quality Assurance / Quality Control (QA/QC)

Quality control and assurance methods were derived from published sources. The following documents were consulted in developing a program and internal quality assurance and control procedures for flow monitoring. In accordance with:

- World Meteorological Organization (WMO) (2008) Guide to Hydrological Practices, Volume I. Hydrology – From Measurement to Hydrological Information,
- Standards for the Analysis and Processing of Surface-Water Data and Information Using Electronic Methods,
- Ladson (2008) Australian hydrology: an introduction
- BOM (2013) National Industry Guidelines for hydrometric monitoring,

A range of quality assurance and control procedures were used to check, process and perform data calculations. These include the following methods:

- Data verification and validation,
- Error checking,
- Data adjustment for known errors,
- Aggregation and interpolation of data, and,
- Computation of derived variables.

Data verification and validation

a) Check manual readings against logger data at the beginning and end (and intermediate) measurements;

b) Plots of stage with plot of any other stage values for the period, such as from flow gauging or water quality data sets;

c) Qualitative check of hydrograph shapes and events, looking for suspicious features such as straight lines, steps, spikes or freshets, floods and recessions in conditions where they would not be expected

Error screening

Pressure transducers and Doppler profilers might record erroneous readings during deployment for a variety of reasons, including:

- they can become dewatered during low flow conditions
- high flow events can bury them in sediment
- high flow events could move them
- they might become fouled from debris, aquatic vegetation, or algae
- humans might cause interference
- if moisture enters the cable of a vented transducer, it could result in erratic readings or readings of zero water depth
- if the cable of a vented transducer becomes kinked or plugged, it could result in the data not being corrected for barometric pressure

d) Physio-statistical errors were checked by comparing plots of rainfall total with predicted variables (i.e. water height and velocity)

e) Data were plotted to look for issues such as extended periods of zero flow, velocity or no change

Data adjustments for known errors

f) Errors reported by field staff for manual quality control of data sets, commonly associated with sensor drift, clock adjustments or discrete events (e.g. standardised measurements to time excluding daylight savings)

g) Infill data gaps using a mathematical function (linear interpolation)

h) Correct for drift if any shifts were detected (using a statistical fit)

i) Correct negative height values using a geometric mean from the two adjacent data points.

Aggregation and interpolation of data

j) Reduce the dataset to a longer time period (e.g. 6 minutes) or take the median, geometric mean and/or percentiles and plot trend-lines

k) Flow and TSS (estimated) were aggregated to a cumulative average or sum at 6-minute intervals (matching rainfall 6-minute totals)

Computation of derived variables

l) Recheck and calculate flow from height and velocity Q=V x A to compute total discharge

m) Check if annual discharges are logical and meaningful [compared with local flow data]

Absolute checks were used to ensure all data were within range (i.e. positive, less than height of drain). Where data were negative, an investigation of the possible cause and either a minimum value (typically zeroing for estuary backflow) or re-interpolation was chosen depending on the type and extent of negative data.

Relative checks were used to assess if data were within expected ranges. Outliers were checked using the Walsh test and removed if exceeding the probability level of alpha = 0.05.

Shorter logging periods were used to allow for data smoothing, i.e. a 1 - 2 minute logging interval recommended based on results from other studies (Maheepala et al. 2001), with subsequent aggregation of data. Logging using a shorter time interval, such as every 2 minutes, allows for averaging of height (and velocity for ADCP), better smoothing and greater potential detection of pulses, as thresholds could be set at lower limits (Maheepala et al. 2001). This allows data to be compared against rainfall and pressure data available from the Bureau of Meteorology (BOM) or Melbourne Water, which is typically provided in 6-minute time intervals.

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alluvium

FINAL REPORT:

Balcombe Creek estuary sedimentation study: sediment coring and analysis

July 2017

THE UNIVERSITY OF MELBOURNE

MORNINGTON PENINSULA Shire

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- Balcombe Estuary Reserves Group Mount Martha (BERG MM) for background information to the study.

Summary

Context
Alluvium in partnership with The University of Melbourne was engaged by Mornington Peninsula Shire Council (MPSC) to undertake a study on the sedimentation history of Balcombe Creek estuary. The purpose of the study is to improve understanding on the historical and recent sources of sediment to the estuary, to assist with informing future management of estuary sedimentation. The technical work was completed over June 2016 – June 2017, and involved:

- Sediment coring in the estuary
- Analysis and dating of sediment samples from the cores
- A review of available historical and recent aerial imagery of the estuary zone
- Interpretation of results in the context of other investigations including the Balcombe Creek estuary review (Alluvium 2016) and recent sediment loads and water quality monitoring analysis (Sharps and Sharley 2017).

Outcomes
Sedimentation and associated infilling of an estuary is a natural process that occurs over time, and is influenced by a range of factors including catchment hydrology, sediment dynamics and disturbance (fire, flood, landuse change). However, where human activity contributes to an increased rate of sediment infill, there may be justification and opportunity to intervene. The findings from this investigation confirm a substantial increase in the rate of sediment deposition in the estuary associated with catchment disturbance since European settlement (clearing for agriculture and urbanisation). This has resulted in the rapid infilling of the estuary over the last 80 years, and with significant inputs from local urban areas in recent decades (last 40 years). The overall findings from the study include:

1. The estuary has an exceptionally well preserved sedimentation history, with the bottom sediments of the 2.5 – 3 m deep cores dating back to some 7000 years ago at the end of the last ice age. Sediment layers include sea grass beds, marine material, organic material and fine sediments, sand and gravel lenses. The well preserved layers within the core indicate minimal disturbance and movement of sediments once deposited in the estuary itself. As such the estuary has been prone to rapid infilling by sediment delivered to it from the catchment, as the deposited sediment is not readily flushed out.

2. A historical sea grass bed is evident in the cores. The sea grass is underlying 0.5 m of recent sediment (last 80 years) derived from rapid infilling due to catchment disturbance, including both agriculture and urbanisation. This infilling has smothered the old seagrass beds and built the islands that are now exposed at low water levels.

3. Sediment from the broader rural catchment, as well as from the local urban sub-catchments (local to the estuary itself), have historically contributed to estuary infilling since European settlement. In the rural areas, waterways are predominantly intact (not eroding) valley fill systems. The swampy form of the valley fill channels, plus the distance of rural areas from the estuary, and the presence of many established wetlands across the catchment, will assist to minimise liberation and delivery of fine sediment to the estuary (Alluvium 2016). In the local urban sub-catchments, reducing the liberation and delivery of sediment to the estuary zone is more challenging.

4. Major sources of recent fine sediment deposition in the estuary (last 40 years to date) from the local urban sub-catchments include: the Hopetoun Creek (Ferrero reserve) sub-catchment (Sharps and Sharley 2017), as well as the Henley Avenue sub-catchment (Sharps and Sharley 2017, and this investigation).

5. The laminations and coarser material (gravel) lenses observed within the top sediment layers of the cores are evidence of storm-induced sediment flows from the local urban sub-catchments. The sediment core data, and the bay-head delta at the southern edge of the estuary near Henley Avenue,

indicate that local runoff from this local urban sub-catchment is a significant source of both fine and coarser sediment to the estuary in recent years.

These findings are derived by the results from recent sediment loads and water quality monitoring analysis undertaken by Sharps and Sharley (2017), combined with the outcomes from this investigation and expert interpretation of the information. The outcomes from this investigation have included interpretation of the sediment layers observed in the sampled cores, as well as geomorphic form and changes observed in historical imagery of the estuary over the last 80 years.

Recommendations
Based on the outcomes from this investigation, the future focus for management of sedimentation in Balcombe Creek estuary includes the following:

- Investigate / implement measures to reduce fine sediment liberation and delivery from the Hopetoun Creek (Ferrero reserve) and Henley Street sub-catchments. This may include:
    - Identification of erosion hotspots / sources of fine sediment
    - Revegetation opportunities along waterways and wetlands
    - Other opportunities to minimise sediment entrained to the estuary
- Investigate / implement measures to reduce coarse sediment liberation and delivery from the local urban areas, in particular the Henley Avenue sub-catchment. This may include:
    - Sealing existing unsealed roads – plus - establishing grassed / vegetated swales along new sealed roads to trap and filter sediment (avoid curb and gutter arrangements). Vegetated swales may also be established along existing sealed roads where possible.
    - Reviewing stormwater management options for the area, and consider a broad range of options to reduce stormwater inflows at Henley Avenue (e.g. diversion of flow, interception, other treatment options).
- Sediment finger printing – matching specific sediments in the catchment (urban or rural) with location/presence in the sampled cores – is an option for further detail if required, however is not a priority recommendation. We propose that sufficient information is now known through the current coring results and water quality investigations to inform the progression of management actions. The samples cores are currently preserved at The University Melbourne if any further specific investigation is required in the future.
- A supplementary investigation to be considered for the future is a geomorphic assessment of the catchment waterways (form, condition, stability). A geomorphic assessment, combined with water quality monitoring in the rural areas, would provide additional confidence that erosion from catchment waterways is not likely to be major concern for future sediment delivery to the estuary. However, there is sufficient understanding from investigations to date a support a focus on immediate management activities in the urban sub-catchment areas, to address known sources of sediment to the estuary.

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1 Introduction

1.1 Project context and scope

Mornington Peninsula Shire Council (MPSC) and other management agencies work together with active community groups to protect and enhance the health of the Balcombe Creek estuary (Figure 1). Altered hydrology and sediment delivery to the estuary have been emerging as key issues for management in the past decade (Water Technology 2008, 2009, 2010; BERG MM 2013, 2015; MPSC 2013).

Alluvium in partnership with The University of Melbourne was engaged by Mornington Peninsula Shire Council (MPSC) to undertake this study on the sedimentation history in Balcombe Creek estuary. The purpose of the study is to improve understanding on historical and recent sources of sediment to the estuary, to assist with informing future management of estuary sedimentation. The technical work was completed over June 2016 – June 2017, and involved:

- Sediment coring in the estuary
- Analysis and dating of sediment samples from the cores
- A review of available historical and recent aerial imagery
- Interpretation of results in the context of other investigations including the Balcombe Creek estuary and catchment: summary report and desktop review (Alluvium 2016) and recent sediment loads and water quality monitoring analysis (Sharps and Sharley 2017).

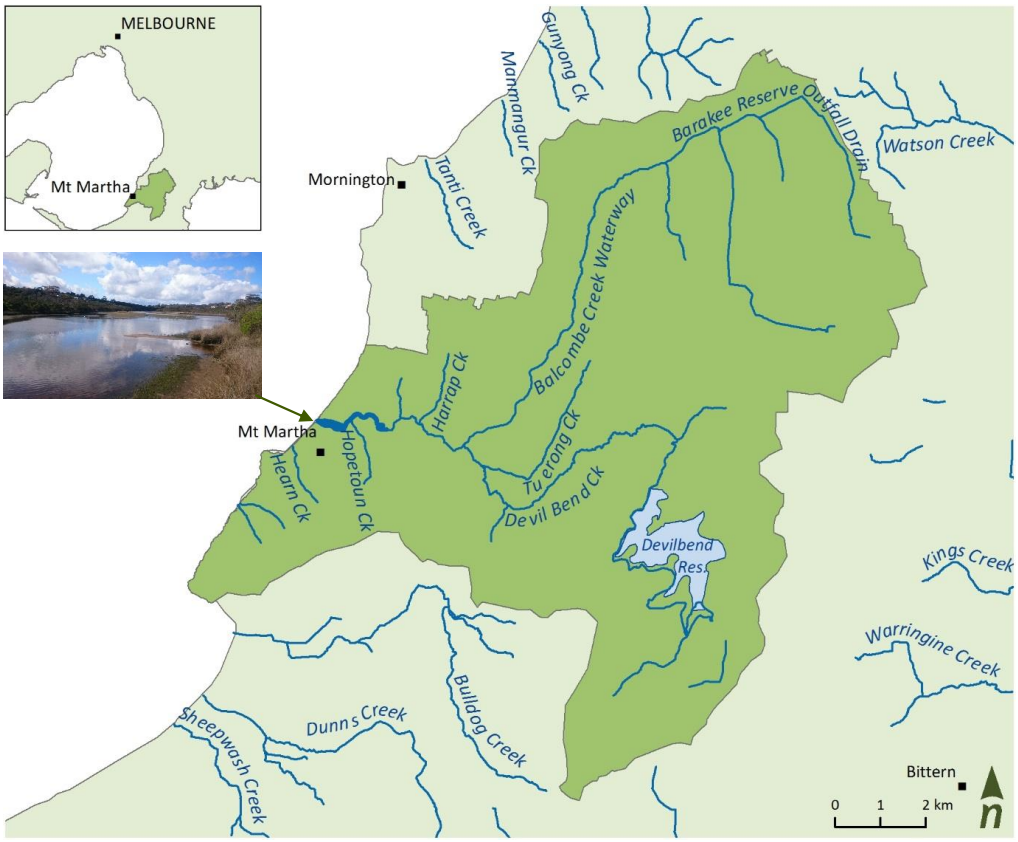

Figure 1. *Balcombe Creek catchment and estuary (photo view of estuary from mouth looking upstream)*

1.2 Structure of this report

This report builds on the existing body of literature on the Balcombe Creek estuary. A review of this literature is provided in the report entitled *Balcombe Creek estuary and catchment: summary report and desktop review* (Alluvium 2016). Please refer to Alluvium 2016 for more detailed background on the Balcombe Creek estuary and catchment (values, threats to values, opportunities).

This report is focused specifically on reporting the outcomes form the sedimentation study, and includes:

- Section 2: Background information
- Section 3: Sediment coring and results
- Section 4: Aerial imagery observations
- Section 5: Conclusions and recommendations.

2 Background

2.1 Estuary processes context

Like the majority of estuaries situated on the southern Australian coastline, the Balcombe Creek estuary is a wave dominated estuary (OzCoasts 2015). Wave dominated estuaries are also often referred to as; barrier estuaries, bar-built estuaries, and intermittently closed and open lakes and lagoons, with characteristic geomorphic features including the estuary barrier bar, fluvial delta and central basin (Figure 2).

Historically, estuaries such as Balcombe Creek form when sea level rise floods the lower area of a catchment. Over time wave energy drives the development of the barrier bar, resulting in a partly closed estuary. Over long time frames (100s to 1000s of years) the estuary will gradually start to infill due to sediment loads coming from the catchment, until the estuary transforms into a delta (Figure 3).

The accretion of fine and course sediments in estuary zones is an ongoing component of the geomorphic evolution of estuaries, with or without anthropogenic catchment disturbance. However, catchment disturbance associated with urban development, land clearing (for agriculture, forestry) and other disturbances (e.g. fire) will increase the degree of hillslope and channel erosion in the catchment, and increase the magnitude and rate of sediment delivery to the estuary. Management actions can be effective in reducing sediment loads associated with some catchment disturbances.

The current landscape trajectory for Balcombe Creek estuary is a gradual transition to become a wave dominated delta (Figure 3). However, the rate of sediment infill in the basin has been accelerated by catchment disturbance, and there is opportunity to reduce the rate through management interventions.

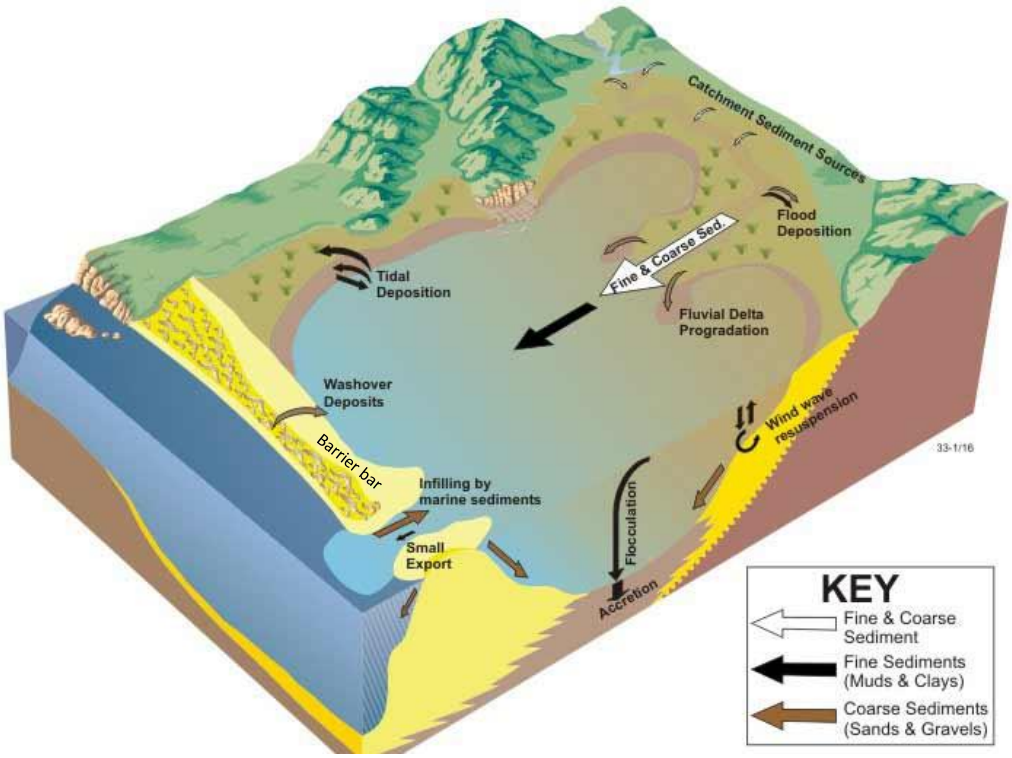

Figure 2. *Sedimentation processes in wave-dominated estuaries (after OzCoasts 2015)*

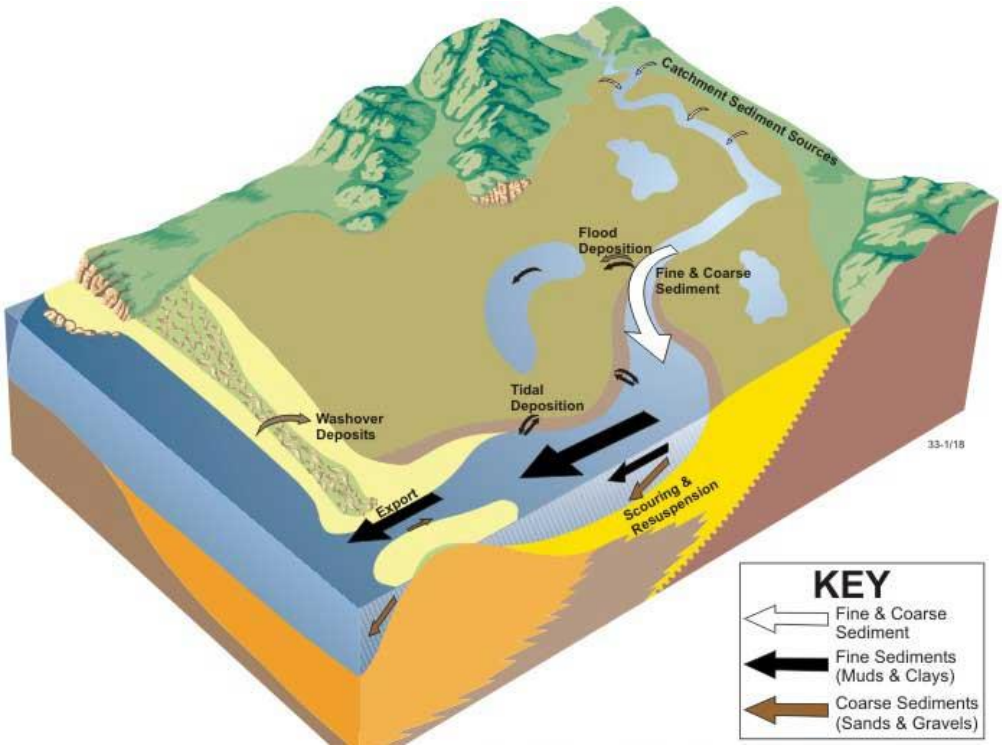

Figure 3. *Long-term development into a wave-dominated delta (after OzCoasts 2015)*

2.2 Management context

Sedimentation
Since 2008 there has been an increasing management focus for the Balcombe Creek catchment and estuary on geomorphology, sedimentation and water quality issues. Studies include a geomorphic study of waterways on the Mornington Peninsula (Water Technology 2008) an assessment of erosion in Harrap Creek (Water Technology 2009), estuary sedimentation studies (Water Technology 2010; BERG MM 2013, 2015) and recent water quality morning and suspended sediment load assessments (CAPIM 2015, Sharps and Sharley 2017).

The context for these investigations has included consideration of the influence of both:

- The broader catchment (including rural areas)
- Largely urban sub-catchments local to the estuary zone.

Broader catchment (rural)
The major concerns associated with the broader catchment zone include hydrology and water quality impacts from agriculture and areas of urbanisation in the upper catchment.

The current valley fill geomorphic form of catchment waterways is in relatively good condition with limited known erosion. Well vegetated valley fills are preventing erosion across the majority of catchment waterways, and acting as sediment sinks reducing the transport of sediment to and its deposition in the estuary. Throughout the catchment there are a number of constructed wetlands and sediment basins that reduce the sediment and nutrient loads entering the waterways.

While in predominantly intact condition (minimal erosion), the status of catchment waterways has been previously recommended for review (Water Technology 2010, Alluvium 2016). The implication is that if valley fills become destabilised, a substantial volume of sediment would be eroded and potentially delivered to the estuary zone, a volume that is likely to be several orders of magnitude greater than inflows from urban areas adjacent to the estuary. Valley fills could be destabilised by a major change in hydrology and/or vegetation cover that can occur with land clearing, extensive urban development, bushfire or other landuse changes.

Local urban-sub catchments

The assessment of potential sediment loads to Balcombe Creek estuary from urban areas in the vicinity of the estuary have been the subject of several targeted investigations to date, including modelling (Water Technology 2008, 2009) and water quality monitoring (CAPIM 2015, Sharps and Sharley 2017). This current study builds on these and other past investigations, and is intended to provide additional clarity on the significance of local urban-sub catchments on estuary sedimentation, in the context of the broader catchment and historical sedimentation rates. The location of the Henley Avenue and Hopetoun Creek (Ferrero Reserve) sub-catchments that are referred to in this report are shown in Figure 4. These are two sub-catchments (of several) that are relatively close to the estuary zone that have substantial areas of urban development.

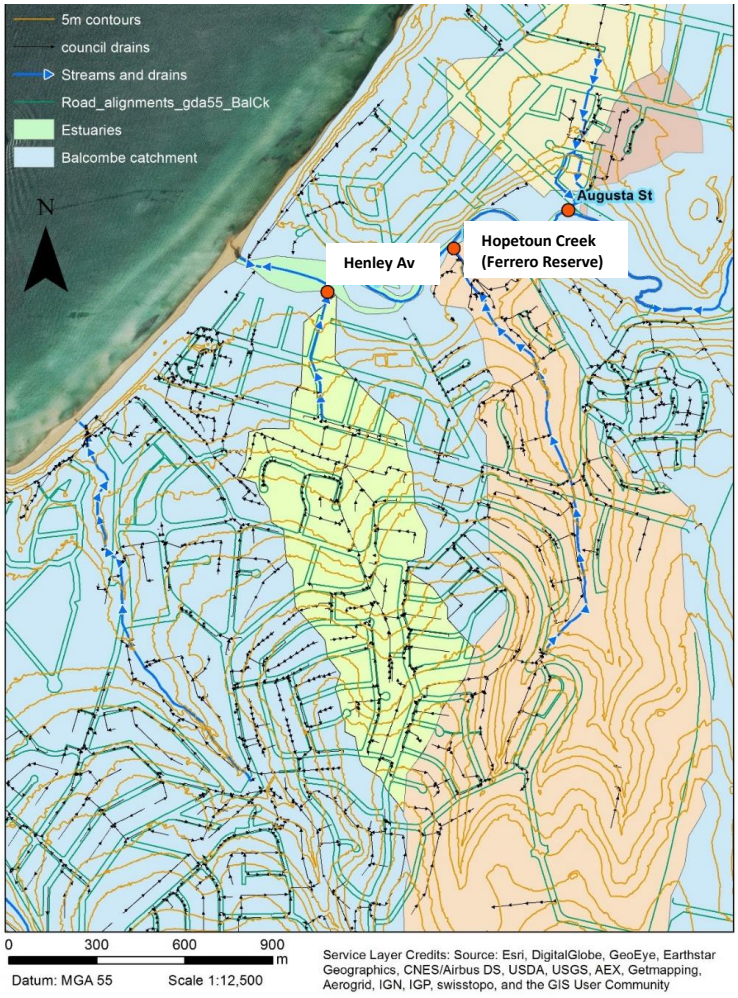

Figure 4. *Location of local urban sub-catchments to Balcombe Creek estuary - including Henley Avenue and Hopetoun Creek (Ferrero Reserve) local urban sub-catchments (after Sharps and Sharley 2017)*

3 Sediment coring and analysis

3.1 Overview

This section of the report outlines the results and conclusions from examination of the sedimentation history of Balcombe Creek. The conclusions are based on examination of sediment texture and pollen composition as well as radiocarbon and Lead 210 dating. It appears that the contemporary infill of Balcombe Creek is the result of sediment influx derived from human activities in the catchment in the past 100 years. These sediments have buried former seagrass meadows that would have been at subtidal elevation and dominated the estuary basin prior to influx of anthropogenically-derived sand and mud. Urbanisation around the lower, cored, part of the estuary is a key sediment source for infilling the lagoon, and the dominant source of sediment to the estuary in recent years. The coring methodology and detailed findings are outlined in the following sections.

3.2 Introduction

Coring was undertaken in Balcombe Creek in October 2016 and February 2017. The intertidal sediment flats in the lower estuarine basin were targeted to retrieve the longest possible history of infill of the creek. This area was also identified by the local community as the area that had undergone observable infill in recent times. Three cores were retrieved using vibrocoring from the estuary in October 2016 (Figure 5) with the depth of penetration ranging from 2.30 – 3.38 m. A total maximum core length of 2.50 m was captured with compaction rates ranging up to 27.5% (Table 1). The compaction observed is within the typical range of estuarine sediments and the depth achieved was excellent for understanding sedimentation within the creek. Two additional cores (# 4a and 4b) were collected by push coring in 2017 to gain high resolution samples of the uppermost part of the sedimentary sequence. A maximum depth of 60 cm was reached.

Figure 5. *Location of cores within Balcombe Creek*

Table 1. Length and depth of penetration of each core collected within Balcombe Creek

Core Number	Depth Penetration (m)	Length Extracted Core (m)	Compaction (%)
1	2.30	2.15	6.5
2	2.83	2.50	11.7
3	3.38	2.45	27.5
4a	0.94	0.68	27.6
4b	0.77	0.60	22.1

3.3 Methodology

Field sampling
Cores 1 - 3 were collected through vibrocoring. An aluminium pipe was sunk into the mud island using vibrations sourced from a modified concrete vibrator. The vibrations act to liquefy the water-saturated sediment and combined the weight of the vibrating head, the pipe sinks into the subsurface. The pipe is extracted through means of a tripod and winch (Figure 6) and allows for an undisturbed core to be retrieved.

Figure 6. *Vibrocoring in Balcombe Creek estuary*

Cores 4a and 4b were collected by push coring where a 50 mm diameter PVC pipe was manually pushed into the sediment and extracted by hand. The push core was retrieved for the specific purpose of quantifying the rate of modern sediment. The two cores were collected within 2 m of each other.

Sediment texture
Once the cores were returned to the Coastal Laboratory at The University of Melbourne they were cut and split lengthways and the sediment visually described. Grain size was analysed using a Beckman Coulter LP13320 laser particle sizer which can analyse grains from 2 mm to 0.4 µm in size. Grain texture was classified according to the criteria of Leeder (1982) and size statistics calculated using the graphical procedures of Folk and Ward (1957). All size results are reported in Phi (ϕ) units, the standard in coastal geomorphology (Table 2).

Phi (ϕ) = $-\log_2$(mm)

Table 2. Wentworth classification of grain size in millimetres and Phi units (Wentworth 1922)

Millimeters (mm)	Micrometers (µm)	Phi (ϕ)	Wentworth size class		Rock type
4096		-12.0	Boulder		
256		-8.0	Cobble	Gravel	Conglomerate/ breccia
64		-6.0	Pebble		
4		-2.0	Granule		
2.00		-1.0	Very coarse sand		
1.00		0.0	Coarse sand		
1/2 0.50	500.00	1.0	Medium sand	Sand	Sandstone
1/4 0.25	250.00	2.0	Fine sand		
1/8 0.125	125.00	3.0	Very fine sand		
1/16 0.0625	63.00	4.0	Coarse silt		
1/32 0.031	31.00	5.0	Medium silt		
1/64 0.0156	15.60	6.0	Fine silt	Silt	Siltstone
1/128 0.0078	7.80	7.0	Very fine silt		
1/256 0.0039	3.90	8.0			
0.00006	0.06	14.0	Clay	Mud	Claystone

Pollen analysis

Pollen analysis, or Palynology, is a type of environmental archaeology in which microscopes are used to analyse the range of plant pollens present in sediment layers: these can tell us what crops, vegetation or ground cover were likely to have been present when a layer was deposited. Pollen analysis is one of the more accurate ways to determine when the influence of European settlement commenced in the sediment cores, in particular by examining when exotic (introduced) vegetation species start to appear in the sediment layers.

Analysis of pollen within core 2 was undertaken at the Pollen Laboratory at The University of Melbourne. Samples were taken at 10 cm intervals in the uppermost part of the core and chemically treated to concentrate the pollen grains. Samples once processed were identified under a microscope with identification based on species reference collections held by the Melbourne University School of Geography.

Radiometric dating

Radiocarbon dating was conducted at the University of Waikato Radiocarbon dating laboratory on shell and bulk organic material from the vibrocores using Atomic Mass Spectroscopy techniques. Lead 210 dating was undertaken at the Australian Nuclear Science and Technology Organisation in Sydney using alpha-counting techniques.

3.4 Results

Stratigraphy

All cores were visually and texturally examined and contain a similar sediment sequence (Figure 7). The maximum compaction observed was 28%, and is likely concentrated in the uppermost parts of the cores, based on the compaction observed in the shorted push cores. The depths referred to here are the core depth, as the precise compaction cannot be accurately assigned to specific sedimentological layers.

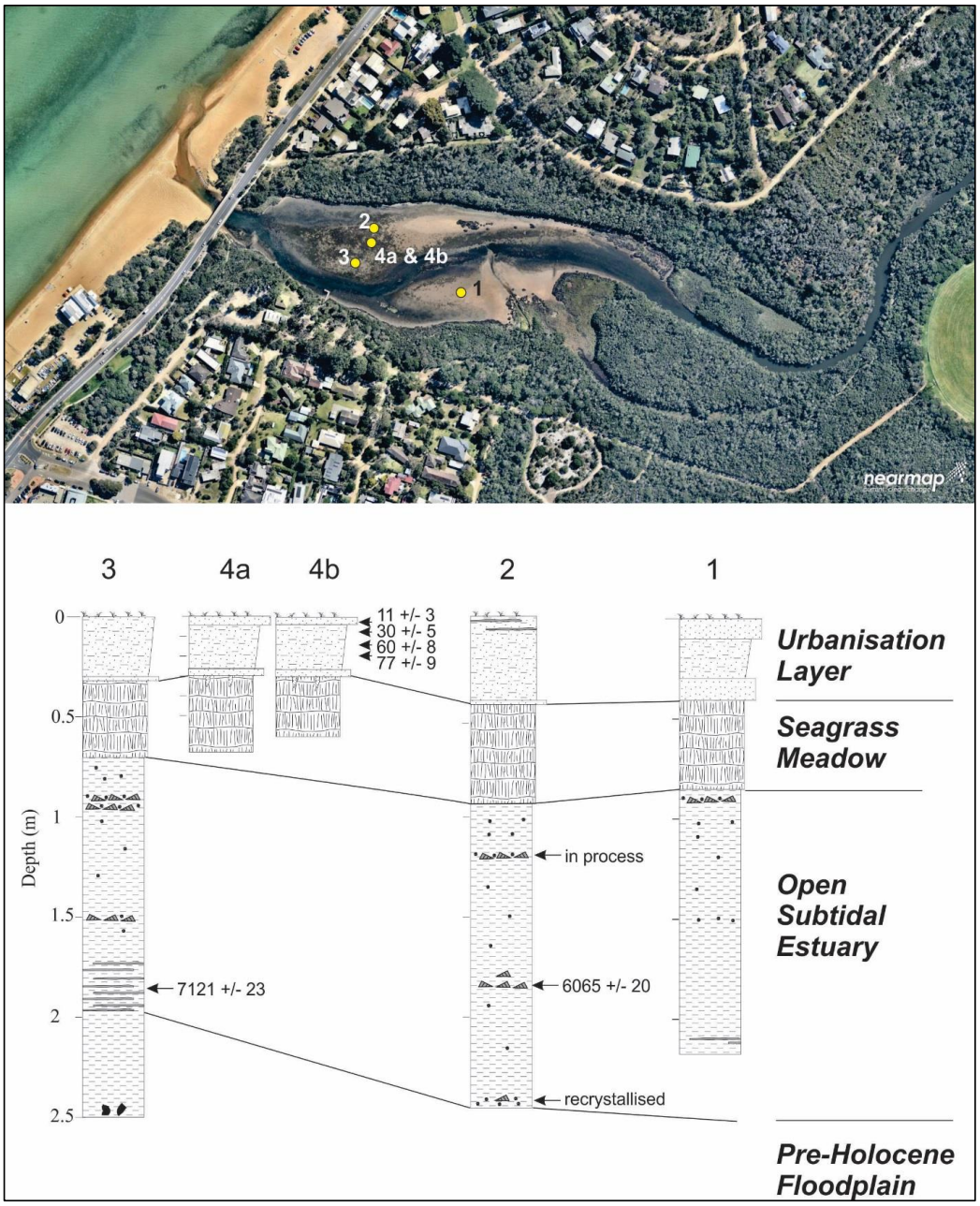

Figure 7. *Stratigraphy and age structure (in years) of Balcombe Creek, showing the variation in depositional environments that have occurred since sea level flooded the coast after the last Ice Age.*

The deepest and oldest sediment sampled was found in core 3. Here the 0.5 m lowest portion of the core encountered compact mud-size sediment with evidence of mottling typical of subaerial weathering that occurs during the process of soil formation (Figure 7, Figure 8). This unit was devoid of macrofossils and is interpreted as representing the pre-exiting land surface before the river channel was flooded at the end of the last ice age.

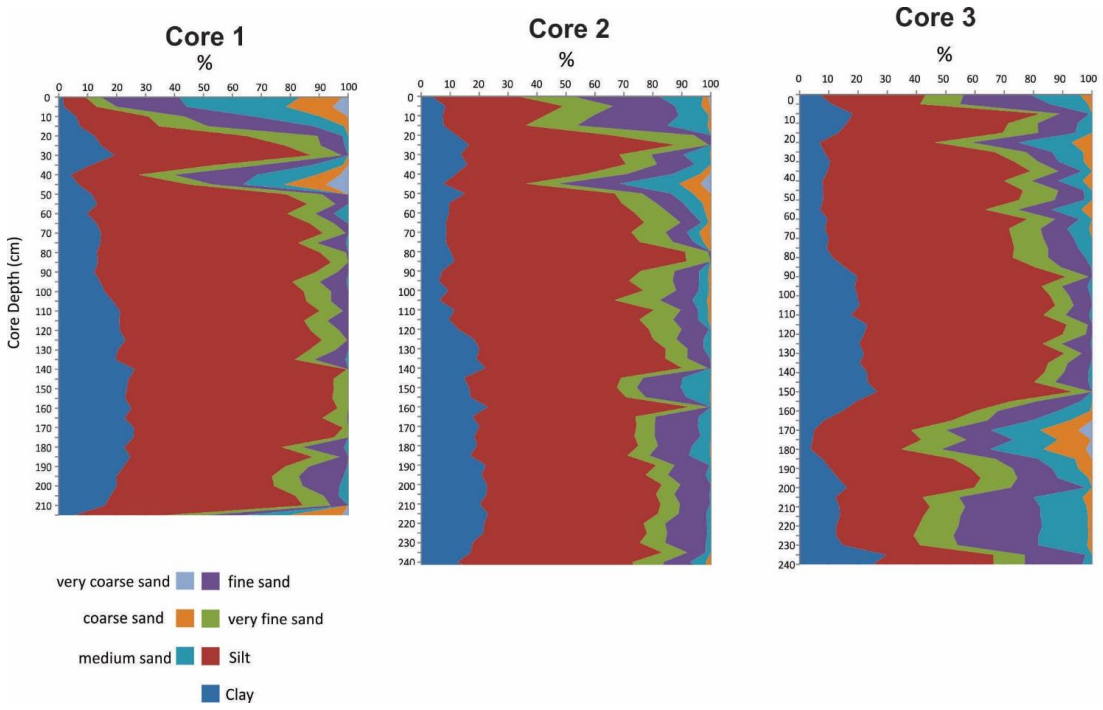

Figure 8. *Vibrocore sediment texture*

Overlying this unit is a layered sequence of highly organic material some of which contained charcoal. This unit is dated at 7121 +/- 23 years by radiocarbon dating (Table 3). It most likely represents a flooded marsh surface or a basin of accumulated plant material. Sea level at this time would have been close to, or slightly higher than, present elevations, based on regional sea level curves (predictions) in eastern Australia (Lewis et al., 2013). This part of the core is likely a 'flooding surface' representing the first stage of marine influence on Balcombe Creek. A shell at the base of core 2 was undatable, and indicates recrystallization from freshwater supporting this interpretation.

Table 3. Radiocarbon ages from Balcombe Creek

Lab Number	Material	Core # / Depth (cm)	Conventional age (years BP +/- 1σ)
45081	Zeacumantus sp (Common Mud Whelk)	Core 2 / 120	5000
45082	Zeacumantus sp (Common Mud Whelk)	Core 2 / 186	6065 +/- 20
45083	Zeacumantus sp (Common Mud Whelk)	Core 2 / 240	recrystalised
45084	Bulk Organics	Core 3 / 186	7121 +/- 23

The main part of the three vibrocores is composed of a fine muddy unit with a mean grain size in the medium silt range (Figure 7, Figure 8). It is very poorly sorted (Figure 10) related to the presence of fine shell material derived from bivalves and mud whelk gastropods. Shells are present throughout this unit decreasing in density with depth. The gastropods tend to be concentrated in distinct shelly bands, representing either a former mud flat surface or a storm deposit. This is a typical estuarine sequence formed in a moderate-low energy basin. A radiocarbon date at 1.8 m depth in core 2 indicates rapid deposition during the early to mid-part of the Holocene when sea level was higher than present.

Overlying the open estuary sequence is an organic rich dark mud with a high density of root material (Figure 7, Figure 9). The roots are identified as sea grass based on their morphology. The sediments are finer grained being mostly medium silt and are poorly sorted. The skewness is markedly different to the upper layer being mostly near-symmetrical (Figure 10). Shell material is not observed within this root-rich organic mud. This unit is ubiquitous through the estuary indicating a vibrant and widespread sea grass meadow was present in Balcombe Creek.

The top of the core, from the surface to a maximum of 0.5 m depth is dominated by fine sand and mud (Figure 8, Figure 10). The unit is thickest in core 1, located on a delta on the southern edge of the estuary (Figure 5, Figure 7). This indicates that the delta is a primary zone of sediment deposition for sediment sources from the nearby sub-catchment area. The material appears to be laminated close to the surface. The laminations may represent specific depositional events related to high flows from the catchment. This uppermost part of the core is devoid of fossil material such as roots or shells. The mean grain size ranges from very fine sand to fine silt, is very poorly sorted and is fine to strongly fine-skewed (Figure 8, Figure 10). This surface unit is separated from the seagrass meadow by a fine sand layer (Figure 7). In cores 4a and 4b the sand penetrates the seagrass bed as it infilled invertebrate burrows, suggesting rapid sedimentation. The widespread nature of this centimetre-thick sand layer throughout the cores suggests a rapid disturbance to the immediate catchment.

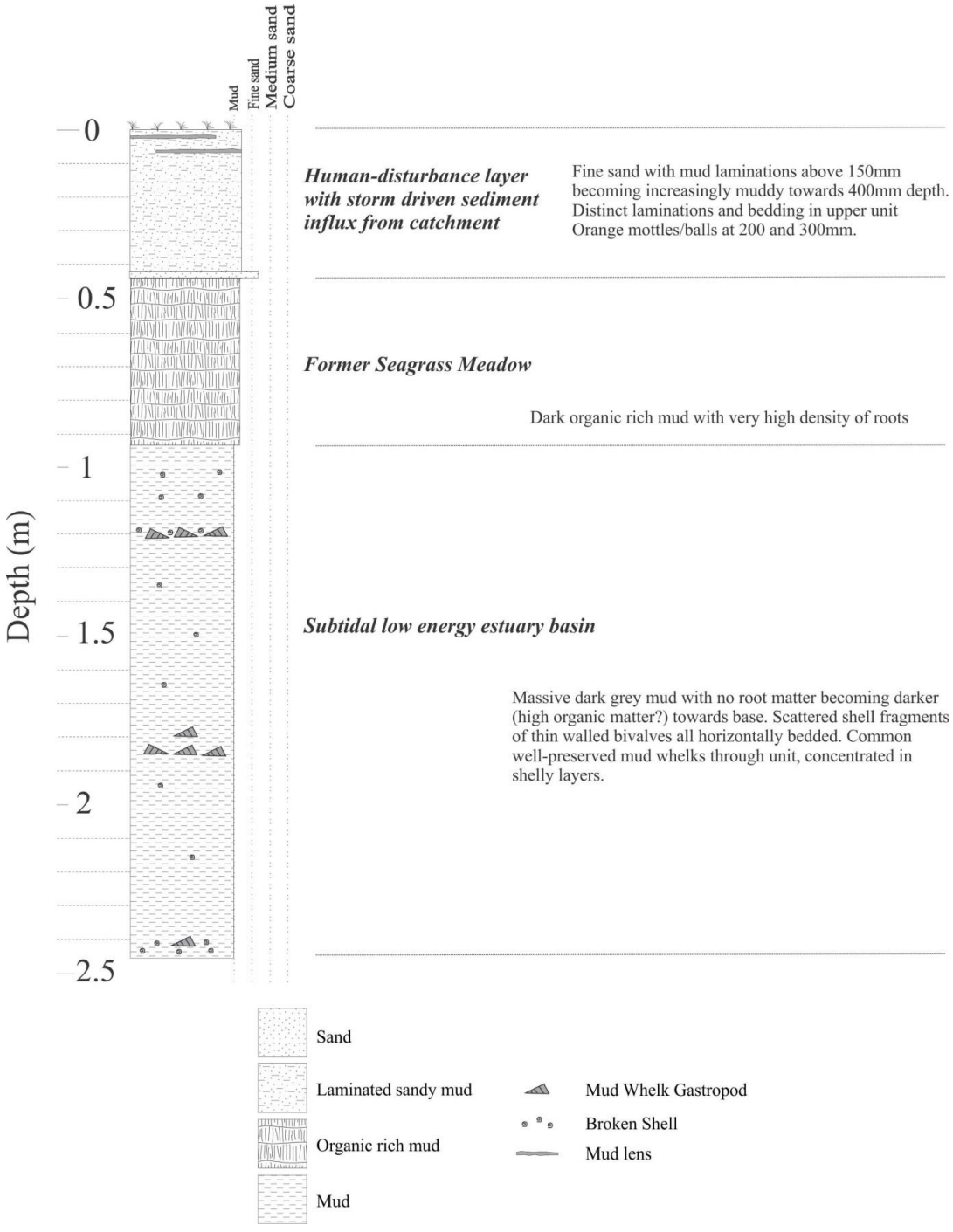

Figure 9. *Detailed textural log of core 2 from Balcombe Creek*

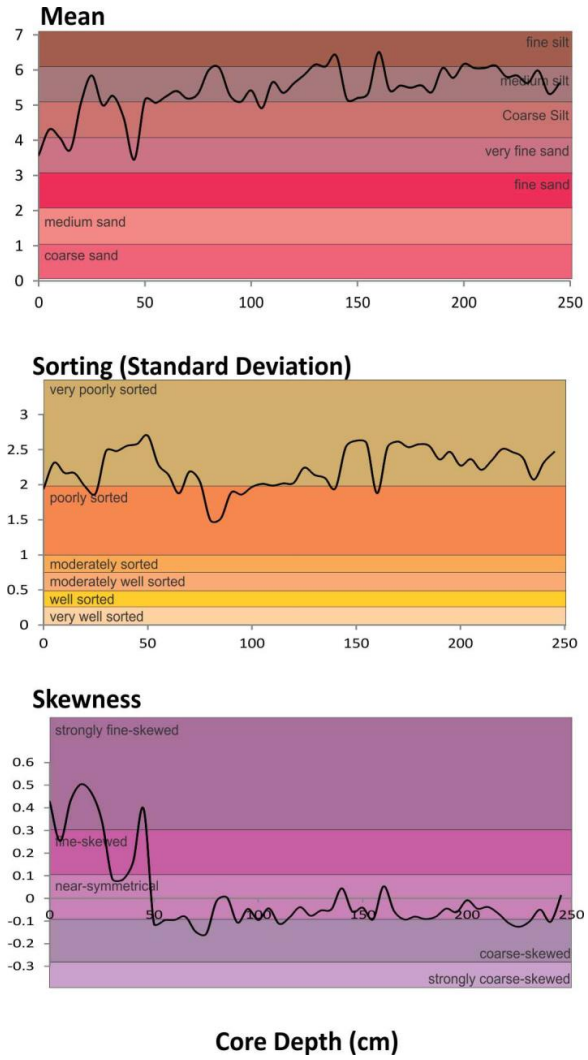

Figure 10. *Detailed sediment texture of core 2 within Balcombe Creek. Texture is calculated using the graphical classifications of Folk and Ward (1957). X-axis is depth in cm, y-axis grain size in Phi units.*

Palynology
Pollen was extracted from the entire core with the concentration of grains being low, typical of these environments. Between 100 - 300 terrestrial pollen grains were counted per sample with pollen diversity also being low (<20 types).

There is a clear difference in the sequence within the top 45 cm (Figure 11). Exotic pollen grains are persistently present and relatively abundant. This sequence also corresponds to the sandier portion of the core. Before this phase, the pollen diagram is dominated by *Casuarina* and *Eucalyptus*, which indicate a large abundance of native vegetation (Figure 11).

The abundance of aquatic species peaks in the uppermost unit and then is virtually absent below 1.0 m, which is close to the base of the inferred seagrass unit (Figure 9).

Pb210 Dating
Lead 210 dating was undertaken in the uppermost layer to determine its age. Lead 210 is a short lived isotope and is therefore ideal for quantifying the age of sediments younger than 200 years old. Sediments from both cores 4a and 4b were homogenised and analysed. The results indicate this surface layer is less than 80 years old and is still accreting today (Table 4).

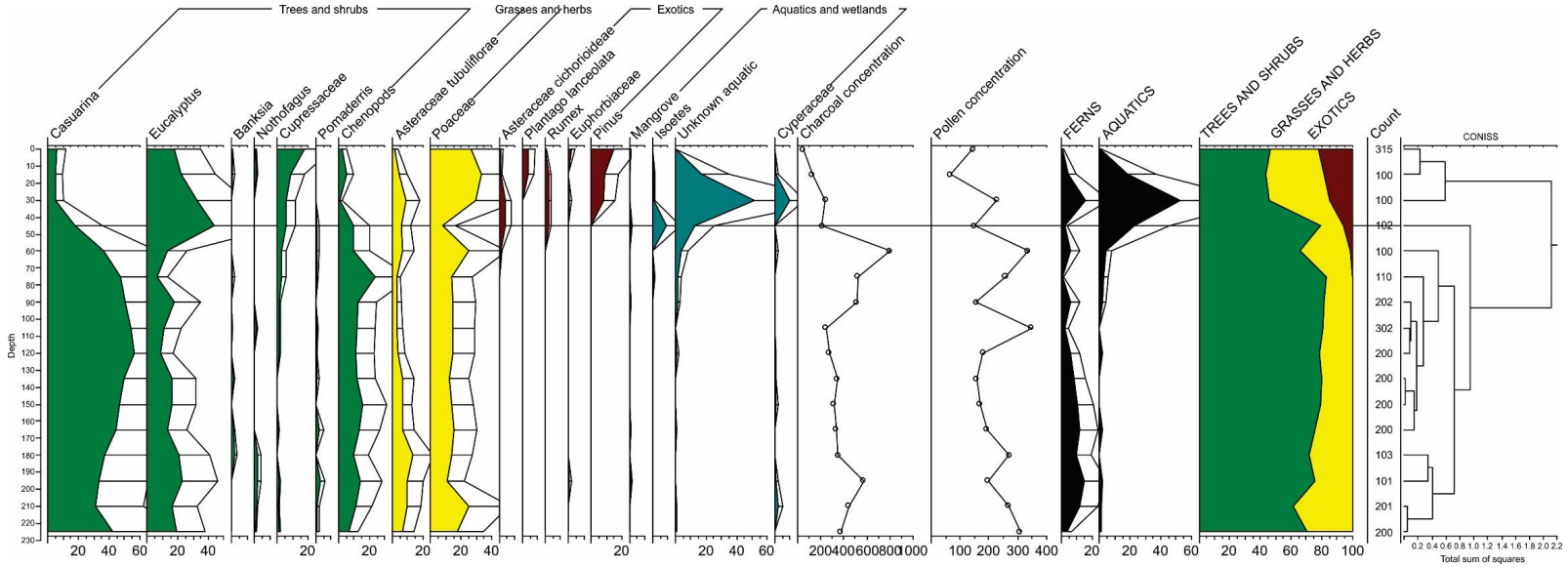

Figure 11. *Pollen concentrations and species abundance for core 2 within Balcombe Creek. The abundance of exotic species suggests the uppermost unit was deposited after European settlement.*

Table 4. Lead 210 dating results from cores 4a and 4b

ANSTO ID	Depth (cm)	Dry Bulk Density (g/cm^3)	Cumulative Dry Mass (g/cm^2)	Count Date	Total ^{210}Pb (Bq/kg)	Supported ^{210}Pb (Bq/kg)	Unsupported ^{210}Pb Decay corrected to 11-Apr-17 (Bq/kg)	Calculated CIC Ages (years)	Calculated CRS Ages (years)	CRS model Mass Accumulation Rates (g/cm^2/year)
T317	0 - 4	1.60	3.3 ± 3.3	20-Apr-17	60 ± 3	13 ± 2	47 ± 3	9 ± 10	11 ± 3	0.29 ± 0.03
T318	4 - 8	1.44	9.4 ± 3.1	20-Apr-17	27 ± 2	5 ± 1	22 ± 2	27 ± 10	30 ± 5	0.33 ± 0.03
T320	12 - 16	1.09	19.5 ± 2.8	20-Apr-17	16 ± 1	8 ± 1	8 ± 2	56 ± 11	60 ± 8	0.35 ± 0.06
T321	16 - 20	1.29	24.2 ± 2.7	20-Apr-17	18 ± 1	11 ± 1	7 ± 2	70 ± 12	77 ± 9	0.23 ± 0.03
T322	20 - 24	1.11	29.0 ± 2.6	20-Apr-17	32 ± 2	9 ± 1	23 ± 2			
T319	8 - 12	1.47	13.6 ± 2.7	20-Apr-17	12 ± 2	13 ± 2	Not detected			

3.5 Environmental interpretation

The detailed sedimentological and palynological information provides the basis for an interpretation of the history of infill within Balcombe Creek. The environment at the site has developed through three distinct environmental phases as outlined in Table 5.

Table 5. Environmental interpretation of the sedimentation history in Balcombe Creek estuary

Environment	Description
Phase 1: Subtidal low energy basin (7,000 – 5,000 years ago)	For the majority of the history represented in the sediment cores, Balcombe Creek was a deep open estuary. The basin was likely several metres deep with mud flats exposed at the margins when the entrance was open.
Phase 2: Accretion of Seagrass. (5,000 years to near present)	Progressive infill of the estuary, derived from sediment sourced from the catchment, built the bottom of the estuary to a depth where seagrass could thrive. A seagrass community was then established with the estuary likely 1-2 m deep.
Phase 3: Rapid sedimentation and island accretion (last century)	Major catchment disturbance following European settlement, including clearing for agriculture and urbanisation, has led to an influx of sediment into the estuary. Rapid sedimentation in the estuary smothered the seagrass beds and built the islands that are now exposed at low water levels. The increased rate of sedimentation directly relates to human activity in the last 80 years, based on the dominance of exotic pollen species within these sediments and Pb210 dating results. The laminations observed with the sediments of the upper layers of sediment (dated to the last 40 years) are likely caused by storm-induced sediment flows in the estuary from the local urbanised catchment. The sediment core data, and the delta at the southern edge of the estuary (where core 1 is located), indicates a dominant source of sediment is now local runoff from the urbanised areas.

4 Geomorphic form changes – aerial imagery review

4.1 Context

A set of aerial images is available from Nearmap (2010-2017) and historical aerials. The imagery is from varying perspectives, scale and resolution, however highlights the development of several geomorphic features that indicate the nature of sediment delivery to the estuary. Specific features of note include the position of the central low flow channel, and progression of the fluvial bay-head delta at the end of Henley Avenue – these are the main changes in geomorphic form in recent decades observable from the imagery. A bay-head delta is a geomorphic feature created by the deposition of sediment over time at the location where a significant waterway / inflow point meets the depositional estuary basin (e.g. Figure 12).

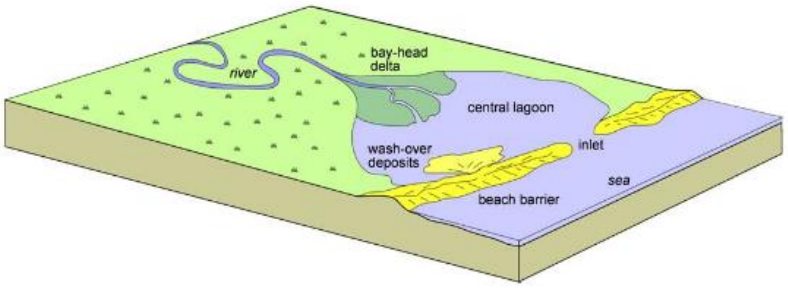

Figure 12. *Conceptual example of a bay-head delta*

4.2 Observations

The bay-head delta at the end of Henley Avenue is evident from the aerials from 1985 (see area circled in orange in aerial images provided below). The presence and persistence of this bay-head delta at the Henley Avenue location (Figure 13 to Figure 19) indicates that a significant recent source of sediment to the estuary (at a minimum in the last 40 years) is from local runoff from the adjacent urbanised catchment. The coring results support these observations. No other major changes in the presence of main bayhead delta on Balcombe Creek are observable over this timeframe, although there is likely to have been sediment accretion on the already established features.

Figure 13. *April 1977 historical aerial imagery (courtesy MPSC) – orange circle identifying area at the end of Henley Avenue – absence of defined bayhead delta. Main bayhead delta on Balcombe Creek indicated in blue circle.*

September 1985

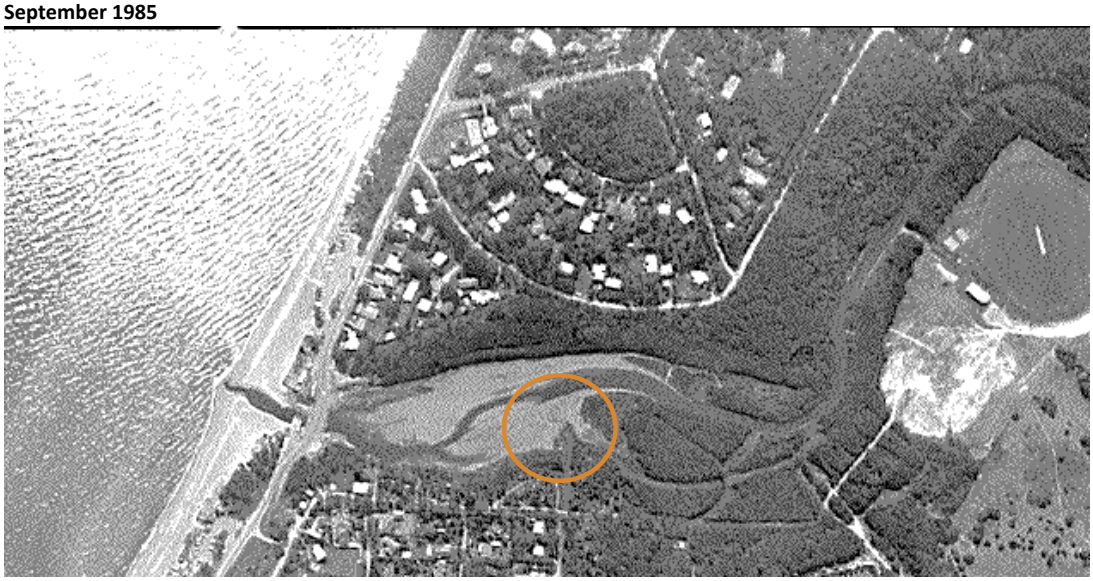

Figure 14. *September 1985 historical aerial imagery (courtesy MPSC) – orange circle identifying area at the end of Henley Avenue – bayhead delta form establishing*

09/10/2010

Figure 15. *October 2010 nearmap aerial imagery – orange circle identifying area at the end of Henley Avenue – bayhead delta well established – vegetation infilling surrounding area.*

31/03/2014

Figure 16. *March 2014 nearmap aerial imagery – orange circle identifying area at the end of Henley Avenue – persistence of bayhead delta*

05/10/2015

Figure 17. *May 2015 nearmap aerial imagery – orange circle identifying area at the end of Henley Avenue – persistence of bayhead delta*

16/01/2016

Figure 18. *January 2016 nearmap aerial imagery – orange circle identifying area at the end of Henley Avenue – persistence of bayhead delta*

08/03/2017

Figure 19. *March 2017 nearmap aerial imagery – orange circle identifying area at the end of Henley Avenue – persistence of bayhead delta*

5 Conclusions and recommendations

5.1 Summary

Summary points drawn from the sediment coring and observations of geomorphic form changes include the following:

6. The estuary has an exceptionally well preserved sedimentation history, with the bottom sediments of the 2.5 – 3 m deep cores dating back to some 7000 years ago at the end of the last ice age. Sediment layers include sea grass beds, marine material, organic material and fine sediments, sand and gravel lenses. The well preserved layers within the core indicate minimal disturbance and movement of sediments once deposited in the estuary itself. As such the estuary has been prone to rapid infilling by sediment delivered to it from the catchment, as the deposited sediment is not readily flushed out.

7. A historical sea grass bed is evident in the cores. The sea grass is underlying 0.5 m of recent sediment (last 80 years) derived from rapid infilling due to catchment disturbance, including both agriculture and urbanisation. This infilling has smothered the old seagrass beds and built the islands that are now exposed at low water levels.

8. Sediment from the broader rural catchment, as well as from the local urban sub-catchments (local to the estuary itself), have historically contributed to estuary infilling since European settlement. In the rural areas, waterways are predominantly intact (not eroding) valley fill systems. The swampy form of the valley fill channels, plus the distance of rural areas from the estuary, and the presence of many established wetlands across the catchment, will assist to minimise liberation and delivery of fine sediment to the estuary (Alluvium 2016). In the local urban sub-catchments, reducing the liberation and delivery of sediment to the estuary zone is more challenging.

9. Major sources of recent fine sediment deposition in the estuary (last 40 years to date) from the local urban sub-catchments include: the Hopetoun Creek (Ferrero reserve) sub-catchment (Sharps and Sharley 2017), as well as the Henley Avenue sub-catchment (Sharps and Sharley 2017, and this investigation).

10. The laminations and coarser material (gravel) lenses observed within the top sediment layers of the cores are evidence of storm-induced sediment flows from the local urban sub-catchments. The sediment core data, and the bay-head delta at the southern edge of the estuary near Henley Avenue, indicate that local runoff from this local urban sub-catchment is a significant source of both fine and coarser sediment to the estuary in recent years.

5.2 Recommendations

Based on the outcomes from this investigation, the future focus for management of sedimentation in Balcombe Creek estuary includes the following:

- Investigate / implement measures to reduce fine sediment liberation and delivery from the Hopetoun Creek (Ferrero reserve) and Henley Street sub-catchments. This may include:
    - Identification of erosion hotspots / sources of fine sediment
    - Revegetation opportunities along waterways and wetlands
    - Other opportunities to minimise sediment entrained to the estuary
- Investigate / implement measures to reduce coarse sediment liberation and delivery from the local urban areas, in particular the Henley Avenue sub-catchment. This may include:
    - Sealing existing unsealed roads – plus - establishing grassed / vegetated swales along new sealed roads to trap and filter sediment (avoid curb and gutter arrangements). Vegetated swales may also be established along existing sealed roads where possible.

  - Reviewing stormwater management options for the area, and consider a broad range of options to reduce stormwater inflows at Henley Avenue (e.g. diversion of flow, interception, other treatment options).

- Sediment finger printing – matching specific sediments in the catchment (urban or rural) with location/presence in the sampled cores – is an option for further detail if required, however is not a priority recommendation. We propose that sufficient information is now known through the current coring results and water quality investigations to inform the progression of management actions. The samples cores are currently preserved at The University Melbourne if any further specific investigation is required in the future.
- A supplementary investigation to be considered for the future is a geomorphic assessment of the catchment waterways (form, condition, stability). A geomorphic assessment, combined with water quality monitoring in the rural areas, would provide additional confidence that erosion from catchment waterways is not likely to be major concern for future sediment delivery to the estuary. However, there is sufficient understanding from investigations to date a support a focus on immediate management activities in the urban sub-catchment areas, to address known sources of sediment to the estuary.

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	Actuals (Dec) FY25 $'000	Adjusted Forecast $'000	Full Year Q2 Forecast $'000	Variance Fav/(Unfav) $'000	Actual FY24 $'000
Rates and Charges	226,277	225,826	226,466	640	223,482
Grants and subsidies	5,392	9,133	8,885	(247)	9,833
User Charges	16,299	29,325	31,908	2,583	32,273
Grants Commission	7,031	7,513	7,614	100	1,309
Other Income	2,285	6,463	6,639	175	7,888
Total Operating Income	**257,285**	**278,260**	**281,511**	**3,252**	**274,786**
Employee Costs	(50,746)	(97,669)	(98,199)	(530)	(88,467)
Materials and Services	(18,080)	(52,989)	(52,026)	962	(37,545)
Materials and Services - Contracts	(50,954)	(111,623)	(112,458)	(835)	(101,048)
Other Expenses	(5,146)	(9,082)	(9,764)	(682)	(9,344)
Total Operating Expenditure	**(124,925)**	**(271,363)**	**(272,447)**	**(1,084)**	**(236,405)**
Net Operating Income/ Funds Available	**132,359**	**6,897**	**9,064**	**2,168**	**38,381**
Capital Works (Net)	(9,074)	(64,546)	(65,374)	(828)	(36,402)
Operating Projects (Net)	(2,196)	(10,860)	(8,167)	2,693	(3,412)
Land acquisitions	-	(659)	(659)	-	(20)
Land sales	-	7,908	7,908	-	-
Interest Income	3,107	4,600	5,357	757	7,728
Interest Expense	(417)	(884)	(888)	(4)	(904)
Debt Servicing Principal	(1,387)	(2,633)	(2,633)	0	(2,916)
New Borrowings	-	6,160	5,160	(1,000)	-
Lease liability repayments	-	(915)	(915)	-	-
Total Other Income/ Expenditure	**(9,967)**	**(61,830)**	**(60,211)**	**1,619**	**(35,925)**
Surplus/ (Deficit)	**122,392**	**(54,933)**	**(51,147)**	**3,786**	**2,456**

Council
Alcohol Harm Prevention Policy

Objective Reference:

MORNINGTON PENINSULA Shire

1.0 AUTHORITY

The Alcohol Harm Prevention Policy (the Policy) applies to all types of Council decision making on alcohol-related matters, drawn from duties, obligations and powers under the following:

- *Local Government Act 2020*
- *Public Health and Wellbeing Act 2008*
- *Liquor Control Reform Act 1998*
- *Planning and Environment Act 1987*

The Policy aligns with the Council and Wellbeing Plan 2021-25:

- Strategic Objective 1.4 – An accessible built environment that supports diverse, current and future community needs.
- Strategic Objective 3.1 - A healthy and self-determined community where everyone feels valued, supported and safe.

2.0 INTENT

The purpose of the Policy is to guide Council's decision-making in relation to the supply and consumption of alcohol on the Mornington Peninsula. The Policy aligns with Council's commitment to enhancing safety and amenity as well as improving community health and wellbeing outcomes, while fostering economic vitality.

3.0 SCOPE

The Policy applies to all Council staff, volunteers and Councillors and relates to:

- The review of planning permit applications or enforcement of planning permit conditions involving the use of land to supply or consume alcohol.
- Correspondence from the Victorian Liquor Commission or relevant government body for Council to provide comment on an application for a liquor licence or permit.
- Matters pertaining to local laws related to alcohol prohibition and infringements.
- The promotion, supply and consumption of alcohol at Council owned facilities, managed events and programs.
- Initiatives and advocacy which aim to improve the health and wellbeing of the Mornington Peninsula community by reducing or preventing alcohol-related harms.

The Policy does not replace the existing processes linked to permit applications and planning scheme amendments governed by the *Planning and Environment Act 1987*, nor does it replace the objection procedures for liquor licensing applications under the amended *Liquor Control Reform Act 1998*.

4.0 GOVERNANCE PRINCIPLES

Under the *Local Government Act 2020*, Council must give effect to the following overarching governance principles:

- Council decisions are to be made and actions taken in accordance with the relevant law;
- Priority is to be given to achieving the best outcomes for the municipal community, including future

generations;
- The economic, social and environmental sustainability of the municipal district, including mitigation and planning for climate change risks, is to be promoted.

5.0 POLICY STATEMENT

Alcohol is the primary drug of concern in Victoria and the Mornington Peninsula. In 2021, alcohol accounted for more than half of all drugs of concern on the Mornington Peninsula which is highest of all the local government areas in the Bayside Peninsula catchment.

In relation to the supply and consumption of alcohol, Federal and State governments hold the most powerful levers of change, such as regulating price, availability, licensing, and marketing, and providing vital services such as police and health systems.

Local government plays an integral role in addressing alcohol related harm such as improving community safety and amenity, managing availability and promotion, and supporting individuals to access support.

This Policy recognises that alcohol consumption is a socially accepted activity, and that responsible supply and service of alcohol can support the vitality of our local economy by generating employment and profit in the viticulture, niche manufacturing, hospitality and tourism industries.

Council prioritises the enhancement of community health and wellbeing on the Mornington Peninsula through acting within its delegated authority to embed alcohol harm prevention principles in its decision-making around the supply and consumption of alcohol in the municipality.

This Policy defines alcohol harm prevention by three key principles, adapted from the National Alcohol Strategy 2019-2028:

- **Supply Reduction** - Controlling managing or regulating the availability of alcohol and advocating for improved options that prevent harm.
- **Demand Reduction** – Prevent or delay the uptake of alcohol consumption and reduce the misuse of alcohol in the community.
- **Harm Reduction** – Reduce the adverse health, social and economic consequences of alcohol-related harm for the individual, their families and the wider community.

This Policy will be implemented under four key areas, with responsibilities being upheld by relevant teams across the organisation:
1. Planning and Liquor Licensing
2. Regulation and Enforcement
3. Open Space, Community Infrastructure and Events
4. Advocacy and Service Delivery

Implementation of the Policy is overseen by the Community Partnerships unit via an internal Alcohol Harm Prevention Working Group comprising:
- Local Laws
- Strategic Planning
- Planning Services
- Economic Development

- Youth Services
- Facility Operations and Event Permitting
- Sports Development

The Policy is supported by key stakeholders including but not limited to local Liquor Licence Forums/Accords (led by Victoria Police), alcohol and other drugs and other community services, advisory committees, and community groups.

5.1 Planning and Liquor Licensing

5.1.1 Assess and determine land use applications for planning permits to use land to sell or consume liquor as required under the *Liquor Control Reform Act 1998* and outlined under the Victorian Planning Provisions and the Mornington Peninsula Planning Scheme, noting that the Victorian Planning Provisions consideration of clustering/cumulative impact are due to be removed in July 2025.

5.1.2 Considering the duties, obligations and powers conferred to Council under the *Planning and Environment Act 1987* only, identify suitable locations of certain types of licensed premises.

5.1.3 Assess and provide a response to the Victorian Liquor Commission (VLC) for applications to grant, vary, transfer and relocation of liquor licences and BYO permits in accordance with the *Liquor Control Reform Act 1998.*

5.1.4 Undertake Social Impact Assessments (SIA) on liquor licence applications received from VLC where there may be higher risk of harm i.e. – large packaged liquor outlets or as determined by Council. The SIA will include considerations of the following criteria:

- Trading Hours – with recommendation that licensed premises close at 11pm and recognition that trading after 1am contributes to increased alcohol consumption and significant local impact.
- Outlet Type – studies propose that hotel, bars and nightclubs with late night licenses as well as sporting clubs are more likely to be associated with alcohol-related harms.
- Venues/Locations – within the evidence, inadequate access to public transport is a contributing factor to alcohol-related harm. Additionally, licensed venues with few chairs, shelves or similar furniture result in patrons being forced to stand, which may foster increased alcohol consumption, leading to increased harms.

5.1.5 To have regard to creating safe and healthy environments in the design of streetscapes in the immediate vicinity of venues providing for the sale and/or consumption of alcohol.

5.1.6 To embed alcohol harm prevention considerations in Council's Municipal Public Health and Wellbeing Plan.

5.2 Regulation and Enforcement

Council
Alcohol Harm Prevention Policy
Objective Reference:

MORNINGTON PENINSULA Shire

5.2.1 Ensure appropriate licensing for sporting, recreational or community facilities which sell or provide alcohol.

5.2.2 Continue to enforce the Mornington Peninsula Planning Scheme and planning permit conditions relevant to the sale and consumption of alcohol.

5.2.3 Work collaboratively with Victoria Police to regulate trading hours, licence types, patron numbers, land use mix and density of licences as well as participation in Liquor Licence Forums and Accords.

5.2.4 Share relevant information with Victoria Police to support them in their responsibility for enforcing the local law relating to open containers of alcohol in public.

5.2.5 Manage infringements issued by Victoria Police under Council's Community Amenity Local Law 2022 and maintain statistical data.

5.2.6 Support licensees ongoing compliance with Responsible Service of Alcohol (RSA), liquor licence permit conditions and 'good neighbour' obligations.

5.2.7 Develop and uphold local laws that protect safety and amenity of public places and support enforcement through Authorised Officers.

5.2.8 Work with the Victorian Liquor Commission in their overall regulation of premises for the supply and consumption of alcohol.

5.3 Open Space, Community Infrastructure and Events

5.3.1 Oversee and maintain public places and local amenity to manage perceptions of safety and wellbeing particularly in areas where there is a high density of liquor licences.

5.3.2 Provide a clear and transparent approach to decision-making on alcohol provision and consumption at sporting clubs and community facilities on Council owned or managed land, including:

5.3.2.1 Actively encourage sports clubs to reduce alcohol-related harm though a range of measures, including:

- Discounts on Council licence fees for clubs not holding a liquor licence;
- Mandatory Good Sports Level 3 accreditation for sports clubs with a liquor licence to be eligible for discounts on Council licence fees or incentives;
- A ban on serving, selling or consuming alcohol in licensed areas during junior club activities (as detailed in Council's Sports Management Policy); and
- Not permitting advertising of alcohol products on seasonal tenants' signage (as per the Council's Signage Policy).

5.3.2.2 Prohibit the serving of alcohol at any programs or by any hirers of the Council owned and run Mornington Community House and Mount Martha Community House. This provision is clearly stated in Council's Room Hire Terms and Conditions document and forms part of the venue description on Council's website.

DRAFT

5.3.4 Provide a clear and transparent approach to decision-making on alcohol provision and consumption at events on Council owned or managed land.

5.3.4.1 For events held on Council owned managed land, the Hirer must complete Council's Event Application Form (Bookable Checklist) which mandates:

- A valid VLC liquor licence must be obtained and a copy provided prior to the event, if applicable.
- An event permit issued by Council and the VLC Liquor License is required.
- Both permits must be on display at the event and all conditions adhered to.

5.3.4.2 In Council managed halls, the Hirer must:

- Apply for and obtain the appropriate licence from the VLC;
- Provide a copy of the licence to Council before the hire period;
- Display the licence at the venue during the Hire Period along with any required liquor signage; and
- Upon request, if the booking is deemed High Risk, complete and lodge a Party Safe form with Victoria Police and provide evidence of registration at least 4 weeks prior to their booking and engage security personnel.

5.3.5 All Council-led events, programs and meetings are to be delivered alcohol free, unless permission has been granted by the CEO or a Director.

5.4 Advocacy, Collaboration and Service Delivery

5.4.1 Work in collaboration across the organisation and in partnership with key stakeholders, including people with lived experience, to have an integrated approach to alcohol harm prevention.

5.4.2. Deliver and/or contribute to evidence-based initiatives aimed at addressing alcohol-related harm, promoting healthier alcohol consumption and empowering those seeking to reduce or abstain from alcohol consumption as guided by the VicHealth Alcohol Cultures Framework.

5.4.3 Exchange information and resources and participate in local, regional and State-wide advocacy initiatives that aim to address alcohol related harm and increase provision of related services.

5.4.4 Monitor relevant global and local trends, research and policy contexts pertaining to alcohol-related harm.

5.4.5 Adopt a harm reduction approach in the delivery of Council services to community (e.g. – Child and Family Health, Youth Services, Libraries) to ensure community health and wellbeing is first priority.

5.4.5.1 Maintain partnerships with relevant community service organisations to enable successful referral pathways.

5.4.5.2 Work in partnership to deliver community education and training focused on alcohol harm reduction.

5.4.5.3 Deliver and promote alcohol and drug free events and programs to encourage alternative forms of recreation and leisure.

5.4.5.4 Adopt of a harm reduction approach in the delivery of Council's annual 'Schoolies' event.

Council
Alcohol Harm Prevention Policy
Objective Reference:

MORNINGTON PENINSULA Shire

6.0 HUMAN RIGHTS CHARTER COMPATIBILITY

This Policy has been assessed as being compatible with *the Charter of Human Rights and Responsibilities Act* 2006 *(Vic).*

7.0 ASSOCIATED DOCUMENTS

- Victorian Planning Provisions
- Mornington Peninsula Shire (MPS) Planning Scheme
- MPS Community Amenity Local Law 2022
- MPS Commercial Activities on Footpaths Policy 2008
- MPS Sports Management Policy 2023
- MPS Signage Policy 2012
- MPS Council and Wellbeing Plan 2021-25
- MPS Community Facility Hire Policy 2023
- MPS Employee Code of Conduct 2022
- MPS Conditions of Hire – Community Facilities
- MPS Community Centre Room Hire – Terms and Conditions
- MPS Event Permits – Terms and Conditions
- MPS Event Permits – Quick Reference Guideline

8.0 DEFINITIONS

Alcohol-related harm	Harm arising from the misuse and abuse of alcohol, including: a) Harm to minors, vulnerable persons or communities, including groups within communities b) Family violence c) Anti-social behaviour, including personal injury or property damage
Application Form	Also known as Application Form (Bookable Checklist) which was developed by the Mornington Peninsula Shire to be completed by community members/groups requesting use of Council Land for events. Includes questions on alcohol management.
Authorised Officer	Means any Person appointed under Section 224 and 224A (Members of Victoria Police) of the *Local Government Act 1989*
Council	Means the Mornington Peninsula Shire
Council Land	Means land, buildings or facilities owned, occupied or vested the in the Council or in respect of which Council has the care and management and to which the public has access whether an entry fee is paid or not and includes a public space.

DRAFT

Good Sports	Australian Alcohol and Drug Foundation program aimed at preventing alcohol and other drug harm in sports clubs.
Liquor	Has the same meaning as the meaning as the *Liquor Control Reform Act 1998.*
Liquor Licence Forum/Accord	The Forum refers to an entity made up of liquor industry representatives, Victoria Police, community members and other stakeholders that develops strategies to improve the operation of licensed premises and reduce alcohol-related harms. The Accord is the written document agreed to by all stakeholders.
Licensed Premises	A venue that is licensed to sell alcohol for consumption on or off the premises or allows members of the public to bring alcohol on to the premises.
Packaged Liquor Outlets	Refers to the supply of liquor in sealed containers specifically for consumption off the retail premises, for example, bottle shops, a 'drive-thru', licensed supermarkets.
Party Safe	Victoria Police program aimed minimising the risks of anti-social behaviour, violence, intoxicated guests, or gate crashers at parties.
VLC	Victorian Liquor Commission, a statutory body responsible for alcohol. A successor from the previous Victorian Commission for Gambling and Liquor Regulation.

9.0 POLICY SPONSOR

The Manager Community Partnerships is responsible for overseeing the implementation and review of the Alcohol Harm Prevention Policy.

10.0 DOCUMENT CONTROLS

Council will review the Alcohol Harm Prevention Policy within four years or earlier as required.

10.1 Document Version Table

Document Version Control				
Version	**Section**	**Revision Description**	**Date Revised**	**Approved by**
1	All	Alcohol Management Policy 2017 – reviewed and updated to reflect shift to alcohol harm prevention focus.	June 2024	Manager, Community Partnerships

Council
Alcohol Harm Prevention Policy
Objective Reference:

MORNINGTON PENINSULA Shire

2	All	Alcohol Harm Prevention Policy	To be reviewed by June 2028	Manager, Community Partnerships

Administrative Updates
It is recognised that, from time to time, circumstances may change leading to the need for minor administrative changes to this document. Where an update does not materially alter this document, such a change may be made administratively. Examples include a change to the name of a Council department, the change to an existing policy or document referred to in this policy, and minor updates to legislation and the like which does not have a material impact. However, any change or update which materially alters the document must be by resolution of Council or endorsement of the Executive Team.

DRAFT

MORNINGTON PENINSULA SHIRE Community Alcohol Profile

November 2023

Mornington Peninsula Shire Community Alcohol Profile

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SymPlan respectfully acknowledges the Traditional Owners and Custodians of the land, the Boon Wurrung peoples of the Kulin Nation and pays respect to their Elders, past, present and emerging.

Mornington Peninsula Shire Community Alcohol Profile

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Glossary

Alcohol culture	The way different groups of people drink when they get together. Drinking cultures can influence the way individuals drink. Understanding alcohol cultures can provide a lens for designing and implementing programs seeking to reduce harm from alcohol-related products.[1]
Alcohol	Alcohol is a psychoactive substance with dependence-producing properties that has been widely used in many cultures for centuries.[2] It is the most widely used drug in Australia.[3]
Amenity[4]	The amenity of an area is the quality that the area has of being pleasant and agreeable. Factors that may be considered in determining whether the grant, variation or relocation of a licence would detract from or be detrimental to the amenity of an area include the harmony and coherence of the environment and any other matters prescribed by the Commission. The following factors which may occur inside and/or surrounding the licensed premises are considered to detract from or be detrimental to the amenity of the area in which the licensed premises is situated: • violent behaviour • drunkenness • vandalism • using profane, indecent or obscene language • using threatening, abusive or insulting language • behaving in a riotous, indecent, offensive or insulting manner • disorderly behaviour • causing nuisance • noise disturbance to occupiers of other premises • obstructing a footpath, street or road and • littering.
Alcohol-related violence or disorder	Violence or disorder resulting from or related to the consumption of alcohol, whether or not the alcohol is consumed in the place where the violence or disorder occurs.[5]
Family incident	A family incident is an incident attended by Victoria Police involving an 'affected family member'. An affected family member' is the person affected by events occurring during a family incident. The other individual involved in a family incident is referred to as the 'other party'. The other party could be a current partner, former partner or a family member.[6]

[1] VicHealth Alcohol Cultures Framework Alcohol Cultures Framework | VicHealth
[2] Alcohol (who.int)
[3] Alcohol | NHMRC
[4] Liquor Control Reform Act 1998
[5] Liquor Control Reform Act 1998
[6] Crime Statistics Agency

	For the purposes of this report the terms family incident and family violence are interchangeable.
Family violence	Family violence is defined by the Family Violence Protection Act 2008 as: Behaviour by a person towards a family member of that person if that behaviour— (a) (i) is physically or sexually abusive; or (ii) is emotionally or psychologically abusive; or (iii) is economically abusive; or (iv) is threatening; or (v) is coercive; or (vi) in any other way controls or dominates the family member and causes that family member to feel fear for the safety or wellbeing of that family member or another person; or (b) behaviour by a person that causes a child to hear or witness, or otherwise be exposed to the effects of, behaviour referred to in paragraph (a).
Harm	Harm arising from the misuse and abuse of alcohol including harm to minors, vulnerable persons or communities, family violence and anti-social behaviour including behaviour that causes personal injury or property damage.[7]
Licensed premises	A premises which has a liquor licence (other than a pre-retail or producer's licence) or BYO permit
Liquor	Liquor is a beverage, or other prescribed substance, intended for human consumption with an alcoholic content greater than 0.5 per cent by volume at a temperature of 20 degrees Celsius.
Off premises liquor licences	Premises that sell alcohol for consumption off the premises. These typically include bottle shops with packaged or general liquor licences and clubs with full liquor licences. Refer to Appendix 2.
On premises liquor licences	Premises that sell alcohol for consumption on the premises. These typically include restaurants and cafes (restaurant and café licences and BYO permits), nightclubs (on premises and late night on-premises licences), pubs and hotels (general and late-night general licences) and recreational clubs (restricted club licences). Refer to Appendix 2.

[7] Liquor Control Reform Act 1998

Acronyms

AOD	Alcohol and other drugs
CCTV	Closed circuit television
FASD	Foetal Alcohol Spectrum Disorder
LGA	Local government authority
LCV	Liquor Control Victoria
LGBTIQA+	Lesbian, gay, bisexual, transgender, intersex, queer, asexual
TAC	Transport Accident Commission

Executive summary

Background

Mornington Peninsula Shire Council (the Shire) has recognised the need for a new alcohol harm prevention policy and action plan which will guide it in protecting the community from alcohol-related harm.

Council engaged SymPlan to prepare the Mornington Peninsula Shire Community Alcohol Profile (the profile) which will provide the evidence underpinning the new alcohol harm prevention policy and action plan.

Community and health profile

At present Mornington Peninsula' Shire's population is concentrated along the Port Phillip Bay coastline to the west of the municipality. The population is expected to grow by 10,748 people between 2021 and 2036.[8] The majority of this growth will occur in the west and southwest (Rosebud, Capel Sound, McCrae, Boneo, Fingal, Cape Schanck), Mornington, Mount Eliza and Dromana.

Compared with Victoria, Mornington Peninsula Shire compares unfavourably with several health and wellbeing indicators, including psychological distress and people who report their health status as fair or poor. In 2023 the municipality also has a high rate of family incidents per 100,000 people compared with the Southern Metro Region.

Alcohol is the primary drug of concern in Victoria and Mornington Peninsula. [9] In 2021, alcohol accounted for more than half of all drugs of concern in Mornington Peninsula. This was the highest of all the local governments in the Bayside Peninsula Catchment. The municipality has a high rate of ambulance attendances (360 per 100,000 people) and alcohol-related hospital admissions (775 per 100,000 people) compared to metropolitan Melbourne (290 per 100,000 people and 586 per 100,000 people respectively).

Despite high levels of service, overall demand for alcohol and other drugs services is not currently being met in Frankston and Mornington Peninsula. [10]

In the 2022-23 Financial Year $90.3 million was lost on EGMs in the municipality. This was higher than the average for Victoria ($53.1 million) and metropolitan municipalities ($77.6 million).

Between the 2019-20 and 2022-23 Financial Years EGM losses in the municipality grew by 8.4 per cent.

Family violence reports increased 23 per cent from the previous year between March and December 2023.

Alcohol consumption behaviours

Alcohol is a psychoactive substance with dependence-producing properties that has been widely used in many cultures for centuries.[11] It is the most widely used drug in Australia.[12]

People who consume alcohol are more likely to consume it at home than in a licenced premise.[13]

Mornington Peninsula Shire Council's licensed premises play an important role in supporting tourism and the local business sector. The consumption of alcohol is integral to the community's local culture and contributes to social vitality.

[8] .id consulting
[9] Bayside Peninsula Area Catchment Plan, 2023
[10] Bayside Peninsula Area Catchment Plan 2023
[11] Alcohol (who.int)
[12] Alcohol | NHMRC
[13] Foundation for Alcohol Research and Education *Annual Alcohol Poll 2020*

Alcohol consumption patterns and behaviours are influenced by several factors including social and peer pressure, association between consuming alcohol and celebrations, widespread alcohol availability and accessibility of cheap alcohol products and exposure to alcohol advertising and promotion.[14]

Feedback gathered during a stakeholder engagement workshop provided insights into specific drivers influencing alcohol consumption and alcohol harm on the Mornington Peninsula.

- Mornington Peninsula is a challenging place to address AOD issues because the culture normalises alcohol consumption and is an important part of economic prosperity here.
- The Shire is known for its wineries.
- The shire has limited access to public transport.
- Australian culture normalises binge drinking culture "I don't drink during the week".
- Decriminalization of public drunkenness will have a significant impact. Mornington Peninsula Shire currently has the second highest arrest rate for public drunkenness in the State.[15]
- Technology has increased the availability of alcohol [with reference to the ability to order alcohol online].
- The issues on the Mornington Peninsula are temporal – over the weekends, during tourist seasons and schoolies the issues are more acute, during other times of the year the issues are more chronic. During the year police incidents involving young people are not a concerning number, but during schoolies it is a challenge as some venues exceed their maximum capacities.
- Some children place pressure on parents to allow them to drink, saying other parents allow their children to drink.
- Alcohol delivery is not well-regulated and increases accessibility for people that are isolated.

Licensed premises context

In April 2023 there were 811 liquor licences[16] on the Mornington Peninsula. The northern part of the municipality is also in close proximity to a concentration of liquor licences in Frankston.

There are concentrations of liquor licences in Mornington, Dromana, and Rosebud, Red Hill, and Mount Eliza. These suburbs are all located along the densely populated Port Phillip Bay coastline, to the west of the municipality.

The majority of liquor licences in Mornington Peninsula Shire are restaurant and café, limited and producer's. Thirteen of the licensed premises also have gaming licences which permit the use of electronic gaming machines.

Key features of Mornington Peninsula's mix of licence types are:

- No late-night packaged liquor licences.
- Low proportion of liquor licences selling large quantities of alcohol for consumption off the premises (packaged and general, including late night).
- High proportion of producer's and remote sellers licences relative to metropolitan and regional municipalities and Victoria.

[14] National Alcohol Strategy 2019-2028
[15] Personal comment, Victoria Police
[16] Including pre-retail and producer's liquor licences

- Low proportion of general and packaged liquor licences relative to metropolitan and regional municipalities and Victoria.
- High proportion of on premises and restaurant and café liquor licences relative to regional municipalities.

The mix of liquor licences reflects the important role Mornington Peninsula plays in supporting tourism both in the form of hospitality and wine production. It also reflects Shire's strategic location, being an interface council between metropolitan Melbourne and the regional municipalities where the high proportion of restaurant and café licences is consistent the mix of licences typical of metropolitan municipalities and the high proportion of producer's licences consistent with the regional municipalities.

Determinants of alcohol-related harm

Socio-economic determinants of alcohol-related harm include socio-economic disadvantage, cultural background, age, gender, and health and wellbeing status. Physical and environmental determinants of alcohol-related harm include density of liquor licences, proximity to licensed premises, mix and type of licensed premises, trading hours, patron capacity and gambling.

There are 13 licensed premises in the municipality which operate beyond 1am, six of which are located in Mornington and two of which are located in Hastings. Eight of the 13 late night venues are considered high risk due to their operating hours, large patron capacities and provision of electronic gaming machines.

Impacts of alcohol-related harm

The consumption of alcohol is often associated with celebrations, socialisation and the enjoyment of food and drink. However, the abuse and misuse of alcohol in the community leads to of social, health, safety, economic and environmental harms, the costs of which are borne by local government, local service providers and the judiciary system.

The Bayside Peninsula Area Catchment Plan identified the following priority groups in the community considered to be at an elevated risk of alcohol-related harm:

- Aboriginal and Torres Strait Islander people
- People with mental health conditions
- Young people
- Older people
- People in contact with the criminal justice system
- Culturally and linguistically diverse populations
- People identifying as lesbian, gay, bisexual, transgender, and/or intersex.

While a proportion of the community, particularly people aged 30 years and over, is at risk of chronic alcohol-related harms, younger people are at risk of acute alcohol-related harms particularly during peak tourist season and schoolies.

Analysis of the socio-economic determinants of harm within the municipality indicates the communities in Hastings, Rosebud, Tootgarook and Capel Sound are at an elevated risk of alcohol-related harms. These communities also display high levels of socio-economic disadvantage relative to Mornington Peninsula Shire.

Analysis of the three venue specific risk factors, namely venue size, trading hours and operating as a gaming venue indicates there is a concentration of high-risk venues in Mornington and Hastings.

Overall analysis indicates the communities of Mornington and Hastings are at specific risk of alcohol-related harms in the municipality.

Conclusions

Council plays several important statutory roles in protecting the community from alcohol-related harms. These include advocating for an increase in harm minimisation measures, collaborating with partners to ensure equitable access to services, building the community's capacity to engage in healthy alcohol consumption behaviours. Council plays an important statutory role in regulating land uses, including land use for the sale and consumption of alcohol, and maintaining a clean and safe public realm in areas surrounding licensed premises.

A further important role is in developing a strategic framework which will guide these statutory roles and reduce the overall cost burden to Council of alcohol-related harms in the community. This strategic framework would consist of an overarching vision, and a set of objectives, strategies and actions guiding the fulfillment of Council's statutory advocacy, collaborative, capacity building, planning and regulatory roles.

1 Introduction

1.1 Background

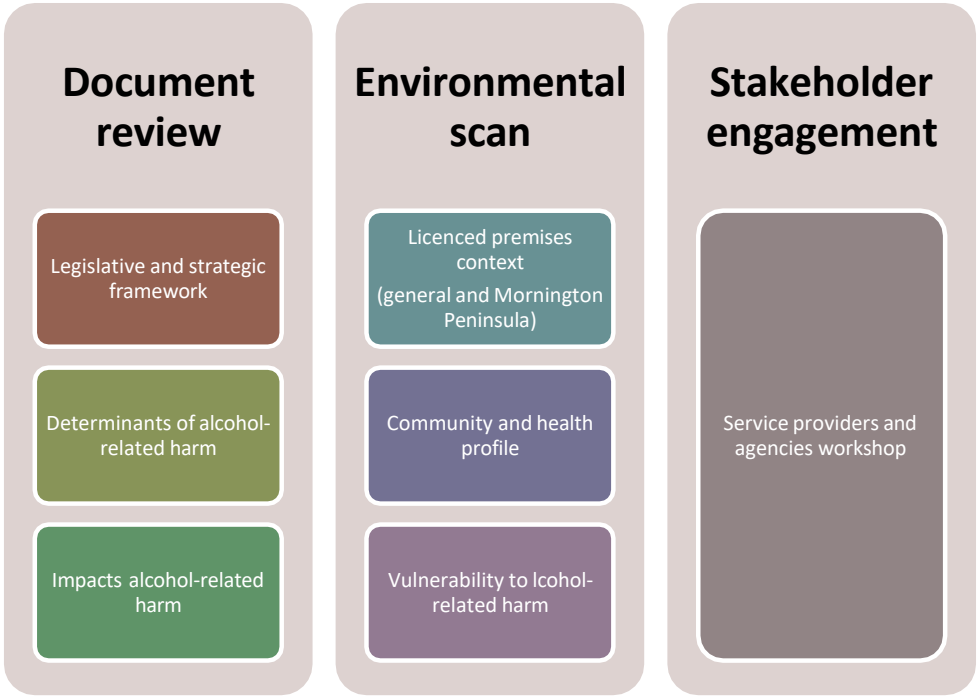
Mornington Peninsula Shire Council (the Shire) has recognised the need for a new alcohol harm prevention policy and action plan which will guide it in protecting the community from alcohol-related harm.

Council engaged SymPlan to prepare the Mornington Peninsula Shire Community Alcohol Profile (the profile) which will provide the evidence underpinning the new alcohol harm prevention policy and action plan.

1.2 Methodology

The methodology guiding the preparation of the profile involved the following:

Figure 1 - Methodology



The documents reviewed are included in Appendix 1.

Detailed outcomes of the environmental scan are provided in Appendices 2, 3, 4 and 5.

A workshop was held with internal and external stakeholders to discuss the socio-economic and environmental drivers of alcohol consumption in the Shire and the impacts of alcohol-related harms on the local community and visitors the shire.

A summary of the discussions held during the stakeholder workshop are provided in Appendix 6.

2 Project context

2.1 Strategic location

The traditional owners of Mornington Peninsula Shire (the municipality) are the Bunurong people of the Kulin nation.

Mornington Peninsula Shire is located at the fringe of Melbourne's outer southern municipalities, between 40 and 80 kilometres south of the Melbourne CBD. It is one of ten interface councils, the others in the southeast being Casey and Cardinia.

The municipality is bounded by Frankston City and the City of Casey in the north, Western Port in the east, Bass Strait in the south, and Port Phillip Bay in the west (refer to Figure 2).

Figure 2 – Strategic location

Source: SymPlan

The municipality consists of the localities of Arthurs Seat, Balnarring, Balnarring Beach, Baxter, Bittern, Blairgowrie, Boneo, Cape Schanck, Capel Sound, Crib Point, Dromana, Fingal, Flinders, Hastings, HMAS Cerberus, Main Ridge, McCrae, Merricks, Merricks Beach, Merricks North, Moorooduc, Mornington, Mount Eliza, Mount Martha, Pearcedale (part), Point Leo, Portsea, Red Hill, Red Hill South, Rosebud, Rye, Safety Beach, Shoreham, Somers, Somerville, Sorrento, St Andrews Beach, Tootgarook, Tuerong and Tyabb.

2.2 Community and health profile

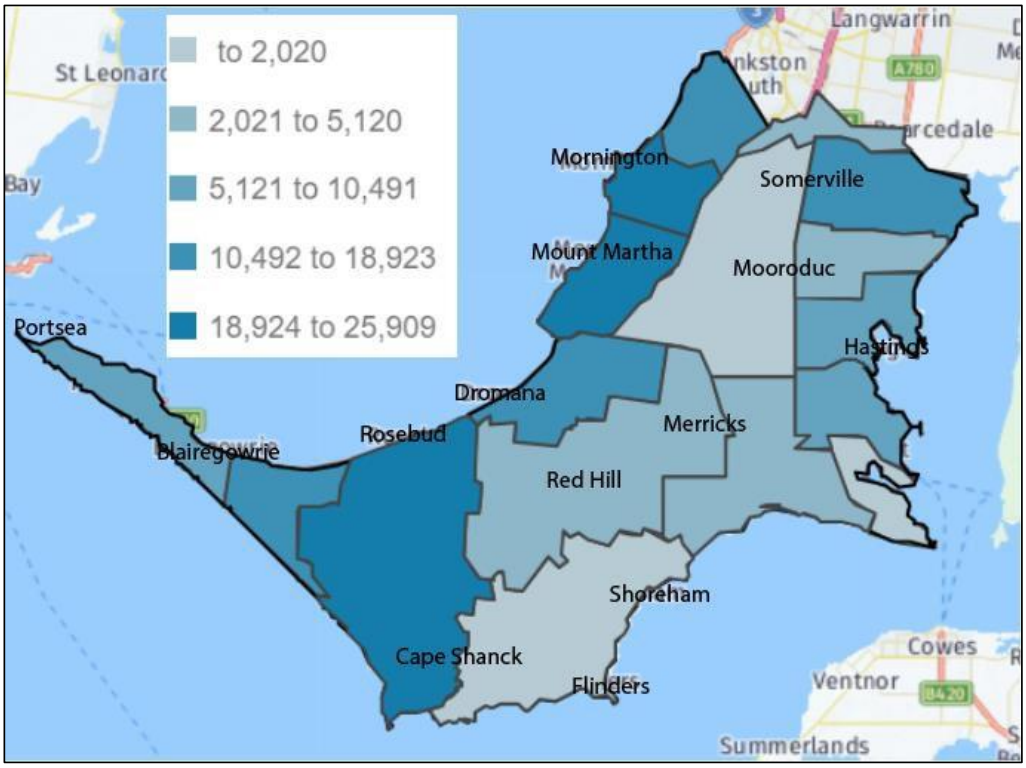
Appendix 4 provides full details of the Mornington Peninsula Shire community and health profile.

2.2.1 Socio-economic profile

Population size and growth

In 2022, the total population of Mornington Peninsula Shire was estimated to be 169,663 people. At present the population is concentrated along the Port Phillip Bay coastline to the west of the municipality (refer to Figure 3).

Figure 3 – Population size and distribution, 2021



Source: SymPlan and ABS Census of Population and Housing 2021, compiled by .id consulting

The population is expected to grow by 10,748 people between 2021 and 2036.[17] The majority of this growth will occur in the west and southwest (Rosebud, Capel Sound, McCrae, Boneo, Fingal, Cape Schanck +2,350 people), Mornington (+2,171 people), Mount Eliza (+1,970 people) and Dromana (+1,581 people). Refer to Appendix 4.

[17] .id consulting

Key characteristics

Relative to Greater Melbourne, Mornington Peninsula has:

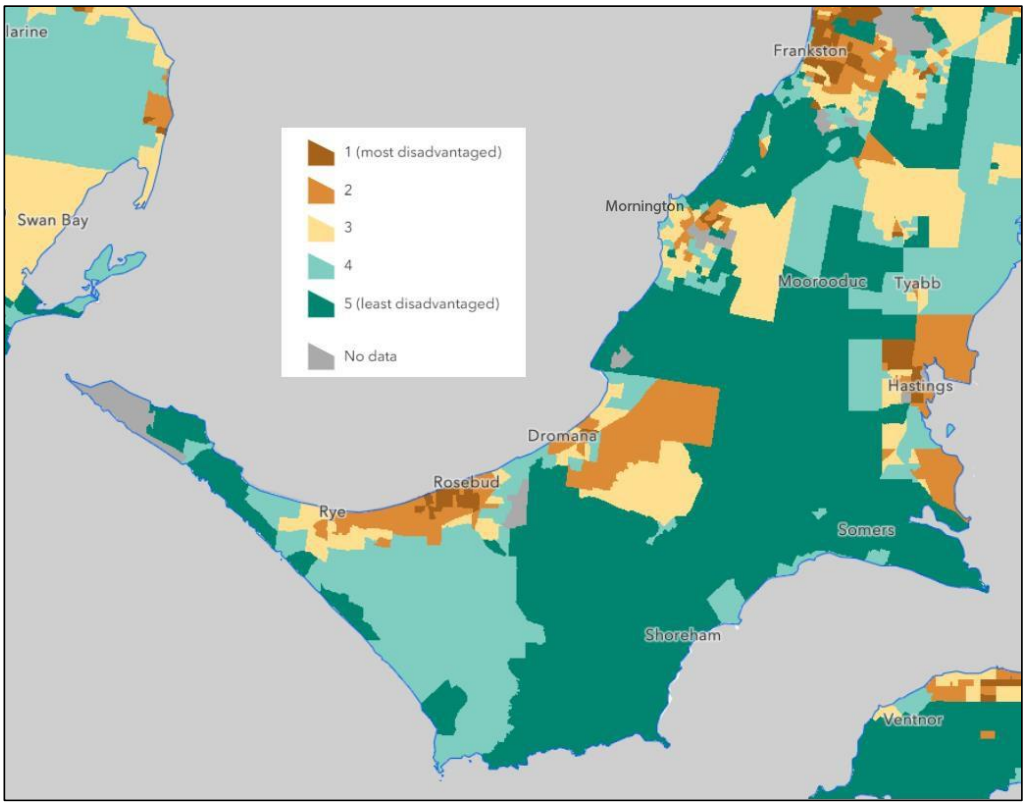
- Similar proportions of males and females.
- Higher proportions of people aged 50 plus years.
- Higher proportions of Aboriginal and Torres Strait Islander peoples, Australian citizens, population over 15 and people employed.
- Lower proportions of people aged 18-24 years, low-income households, group households and people not fluent in English.

Socio-economic disadvantage

Mornington Peninsula Shire, as a whole, does not display high levels of socio-economic disadvantage relative to Victoria, Greater Melbourne and the interface councils (refer to Appendix 4).

There are concentrations of socio-economic disadvantage in Rosebud, Dromana, Hastings and Mornington (refer to Figure 4 and Appendix 4). Hastings and Rosebud had the highest levels of socio-economic disadvantage in the municipality and have higher levels of socio-economic disadvantage relative to the municipality, Greater Melbourne, interface councils and Victoria (refer to Appendix 4).

Figure 4 – Index of Socio-economic Disadvantage, 2021



Source: ABS Census of Population and Housing, 2021

2.2.2 Health and wellbeing profile

Mental and physical health and wellbeing

Compared with Victoria, Mornington Peninsula Shire has (refer to Appendix 4):[18]

- Similar proportions of people who are overweight and daily smokers.
- Higher proportions of people who have high or very high levels of psychological distress, people who report their health status as fair or poor, do not feel people can be trusted, do not feel valued by society, own their houses with a mortgage, and experience food poverty.
- Lower proportions of people who rate their life satisfaction as very high.

The impacts of the COVID-19 pandemic on the Mornington Peninsula Shire community include:[19]

- Family violence reports increased 23 per cent from the previous year between March and December 2023.
- An increase of 250 per cent in calls to Beyond Blue from Mornington Peninsula community members in 2020.

Crime and safety

In the 12 months preceding March 2023, Mornington Peninsula recorded 9,768 criminal incidents. In this time period the rate of criminal incidents per 100,000 people was lower than the rate for the Southern Metro Region but higher than the rate for Victoria (5,711.9, 7,182.8 and 5,344.6 respectively).

Between 2019 and 2023 the number of criminal incidents and rate of criminal incidents per 100,000 people in Mornington Peninsula dropped by 10.2 per cent and 11.6 per cent respectively. The reduction in these indicators was higher than the reduction for the Southern Metro region (0.1 per cent and 2.5 per cent respectively). In this time period Victoria recorded an increase in the number of criminal incidents but a reduction in the rate of criminal incidents per 100,000 people (+3.8 per cent and -9.5 per cent respectively).

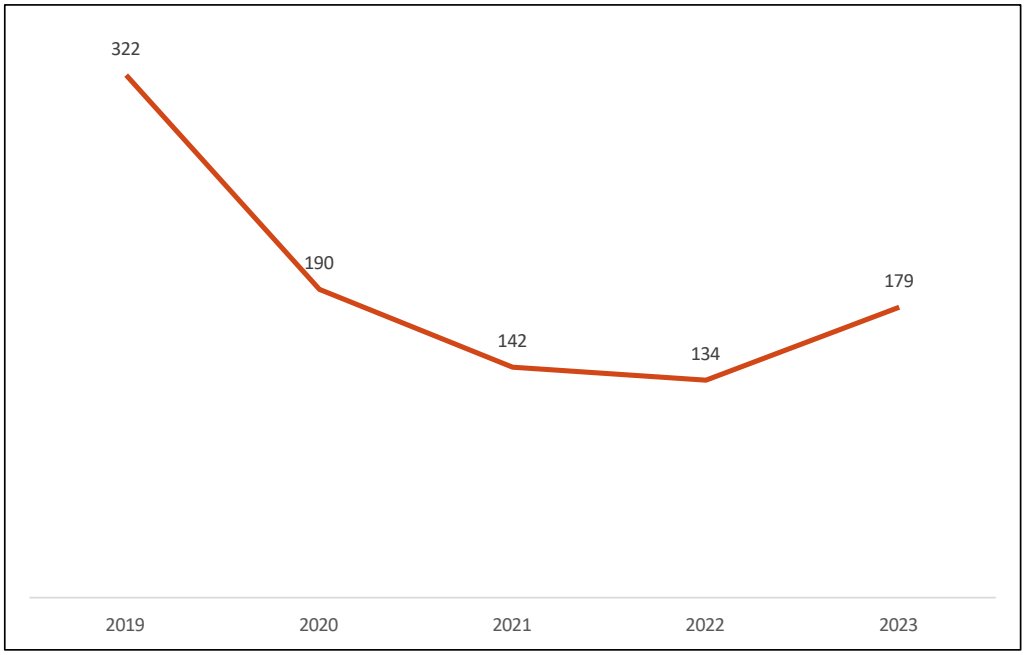
In the 12 months preceding March 2023, Mornington Peninsula recorded 1,996 family violence incidents.[20] In this time period the rate of family incidents per 100,000 people was higher than the rate for the Southern Metro Region (920.9) but lower than the rate for Victoria (1,259.50).

Between 2019 and 2023 the number of family incidents and rate of family incidents per 100,000 people in Mornington Peninsula grew by 8 per cent and 6.4 Per cent respectively. The growth in these indicators was lower than the growth for the Southern Metro region (16.7 per cent and 13.8 per cent respectively) and Victoria (14.6 per cent and 11.6 per cent respectively).

In the 12 months preceding March 2023 there were 179 incidents of drunk and disorderly in public offences in Mornington Peninsula (refer to Figure 5). While there has been a reduction in the number of these incidents between 2019 and 2023, most likely due to the restrictions associated with the COVID-19 pandemic, there has been a 33 per cent increase between 2022 and 2023.

[18] Victorian Population Health Survey 2020
[19] Council and Wellbeing Plan 2021-2025
[20] Please refer to glossary for the definition of a 'family incident'. For the purposes of this report, a family incident is the same as an incidence of family violence.

Figure 5 – Drunk and disorderly public offences, Mornington Peninsula Shire, 2019-2023



Source: Crime Statistics Agency

Alcohol-related health indicators

Alcohol is the primary drug of concern in Victoria and Mornington Peninsula. [21]

In the 2020-21 Financial Year, in Mornington Peninsula, there were:

- 1,321 alcohol-related hospital admissions
- 771 ambulance attendances for incidents involving alcohol, with or without other drugs.
- 613 ambulance attendances for incidents involving just alcohol.

In the 2020-21 Financial Year:

- The rate of alcohol-related hospital admissions and ambulance attendances for incidents involving alcohol with or without other drugs was higher than the rate for Victoria and metropolitan municipalities.
- The rate of ambulance attendances involving alcohol only was higher than metropolitan Melbourne and slightly lower than Victoria.

In Mornington Peninsula, between the 2017-18 and 2020-21 financial years there was a reduction in the number and rate of ambulance attendances for incidents that involved alcohol, with and without other drugs and alcohol only. In this time period there was a 12 per cent increase in the number of alcohol-related hospital admissions. This rate of increase was higher than the rate for metropolitan municipalities, regional municipalities and Victoria 99.3 per cent, 9.5 per cent and 9.3 per cent respectively).

[21] Bayside Peninsula Area Catchment Plan, 2023

In 2021 Mornington Peninsula Shire had the second highest number, and proportion of total, presentations to service providers in the Bayside Peninsula Area Catchment (refer to Table 1).

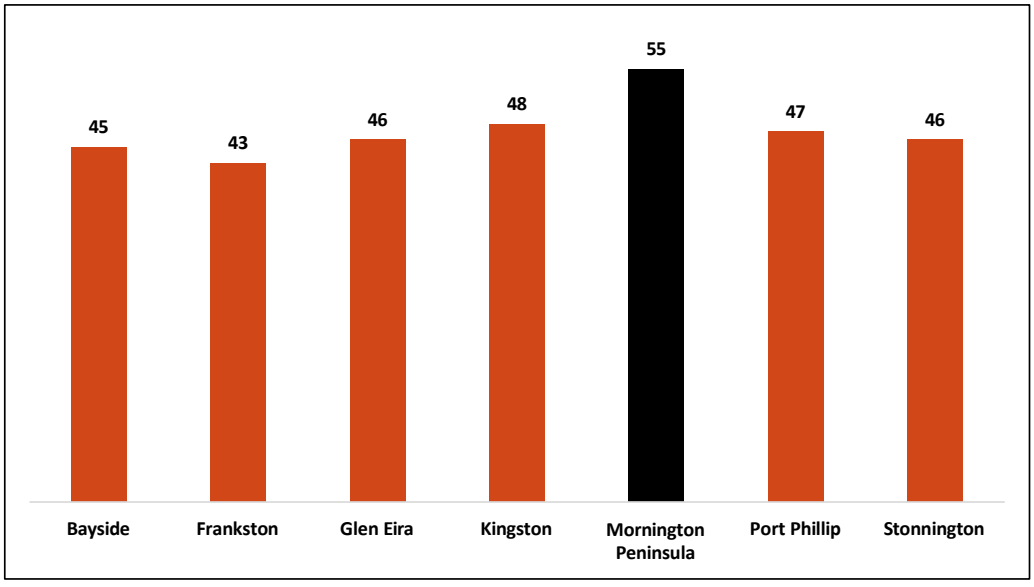
Table 1 - Alcohol and other drug presentations to service providers, 2021

Local government area	Number	Per cent of total
Bayside	847	7.0
Frankston	2,972	24.7
Glen Eira	1,232	10.2
Kingston	1,557	12.9
Mornington Peninsula	**2,262**	**18.8**
Port Phillip	2,002	16.6
Stonnington	1,155	9.6
Total	12,027	100.0

Source: Bayside Peninsula Area Catchment Plan 2023

In 2021, alcohol accounted for more than half of all drugs of concern on the Mornington Peninsula. This was the highest of all the local governments in the Bayside Peninsula Catchment (refer to Figure 6).

Figure 6 – Proportion of drugs of concern being alcohol (per cent), 2021, Bayside Peninsula Catchment



Source: Bayside Peninsula Area Catchment Plan 2023

Gambling

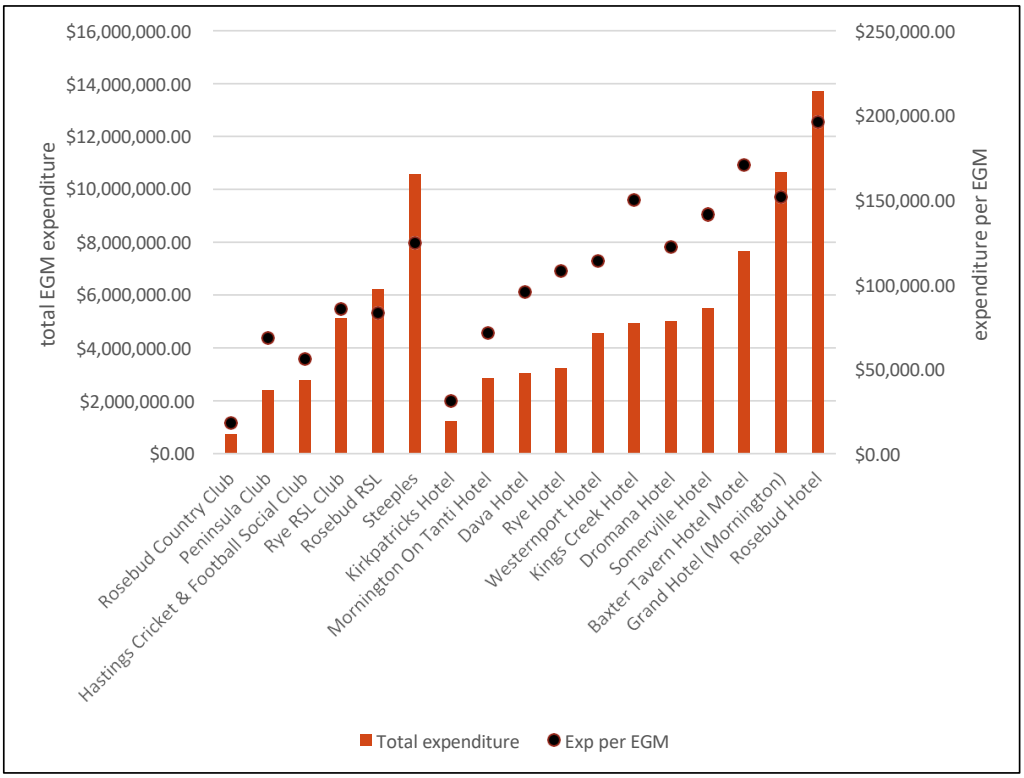
There are currently 17 gaming venues and 825 operating electronic gaming machines (EGMs). In Victoria EGMs are only permitted in hotels, clubs and racing clubs.

In the 2022-23 Financial Year $90.3 million was lost on EGMs in the municipality. This was higher than the average for Victoria ($53.1 million) and metropolitan municipalities ($77.6 million).

Between the 2019-20 and 2022-23 Financial Years EGM losses in the municipality grew by 8.4 per cent.

Rosebud Hotel had the highest total EGM expenditure and expenditure per attached EGM (refer to Figure 7).

Figure 7 – Gaming machine expenditure, 2022-23 Financial Year



Source: Victorian Gambling and Casino Control Commission

2.3 Service provision

The main alcohol and other drugs (AOD) service provider is the Frankston and Mornington Drug and Alcohol Service (previously Stepping up), led by Peninsula Health.

Despite high levels of service, overall demand for AOD is not currently being met in Frankston and Mornington Peninsula. [22]

[22] Bayside Peninsula Area Catchment Plan 2023

3 Licensed premises profile

This section describes Mornington Peninsula's licensed premises profile at a municipal and suburb level.

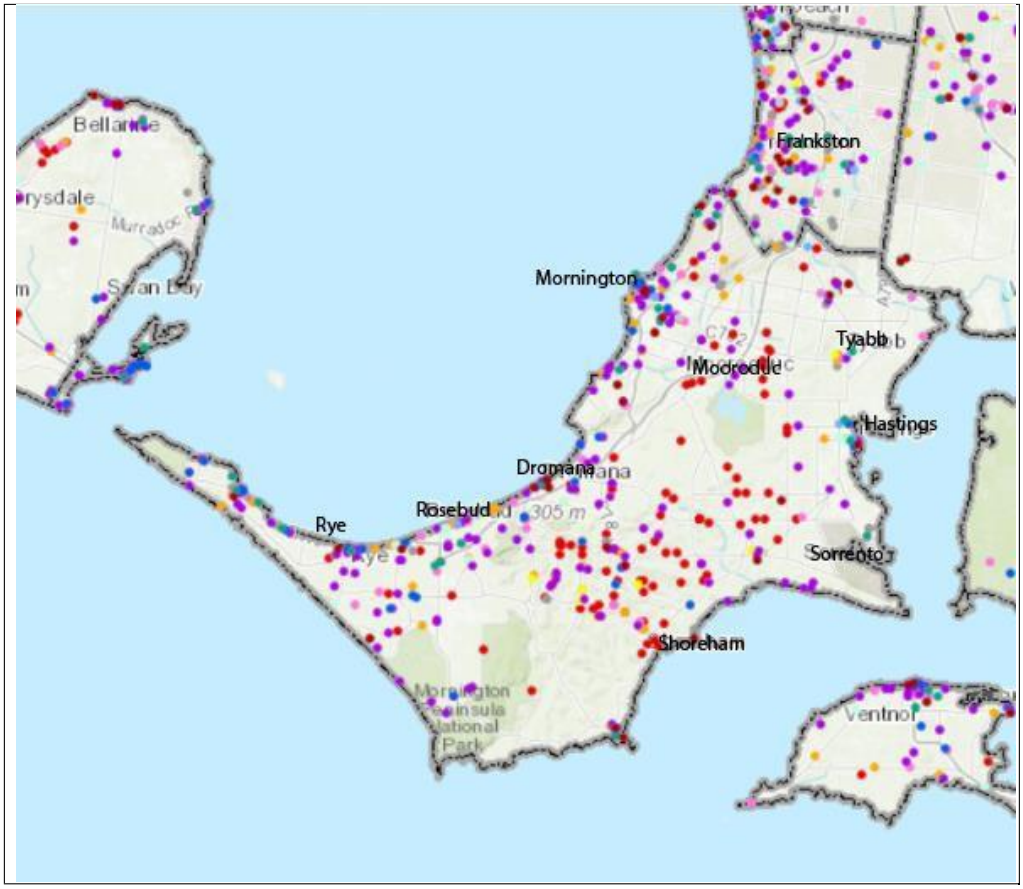
Since March 2020, COVID-19 has had significant impacts on the hospitality and live music industries including licensed venues. Only packaged liquor stores and licensees who were able to sell packaged liquor retail and online were not significantly impacted.

Since the lifting of the pandemic order and restrictions, there are indications that the liquor related industry is recovering. In terms of licence numbers by category with restaurants and cafes; on-premises licences (like bars) and general licences (like hotels) there has been an increase since 31 December 2020. [23]

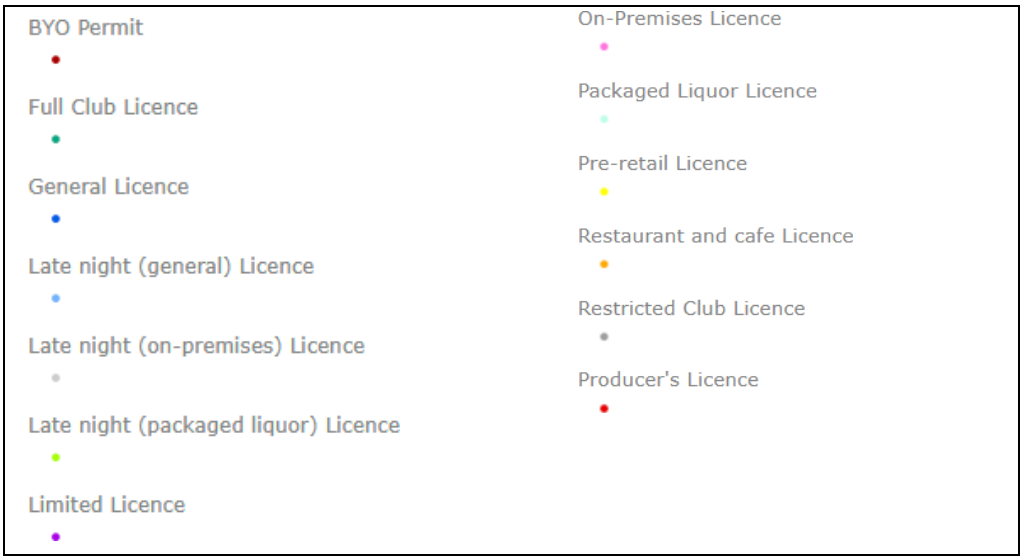
3.1 Context

In April 2023 there were 811 liquor licences in Mornington Peninsula. The northern part of the municipality is also near a concentration of liquor licences in Frankston (refer to Figure 8 and Appendix 5).

Figure 8 – Licensed premises context



[23] Department of Justice and Community Safety Regulatory Impact Statement Liquor Control Reform Regulations 2023



Source: Liquor Control Victoria

There are concentrations of liquor licences in Mornington (n=134), Dromana and Rosebud (n= 61 each), Red Hill (n=58) and Mount Eliza (n=46). These suburbs are all located along the Port Phillip Bay coastline, to the west of the municipality. They are also the suburbs with the highest population density.

3.2 Mix

The majority of liquor licences in Mornington Peninsula Shire are restaurant and café, limited and producer's (refer to Table 2).

Table 2 - Licence type and mix, April 2023, Mornington Peninsula Shire

Licence type	Number	Per cent of total	Number with gaming licences
Pre retail	6	0.7	0
Limited	164	20.2	0
Producer's	106	13.1	0
Remote sellers	67	8.3	0
BYO	35	4.3	0
Restaurant and café	202	24.9	0
On premises	64	7.9	0
Restricted club	29	3.6	0
Full Club	20	2.5	5
Packaged	65	8.0	0
General	41	5.1	3
Late night general	9	1.1	8
Late night on premises	3	0.4	1
Late night packaged	0	0.0	0
Total	**811**	**100.0**	**17**

Source: Liquor Control Victoria

Thirteen of the licensed premises also have gaming licences which permit the use of electronic gaming machines (five of the full club licences, eight of the late-night general, three of the general and one of the late-night on-premises liquor licences).

Key features of Mornington Peninsula's mix of licence types are (refer to Figure 9):

- No late-night packaged liquor licences.
- Low proportion of liquor licences selling large quantities of alcohol for consumption off the premises (packaged and general, including late night).
- High proportion of producer's and remote sellers licences relative to metropolitan and regional municipalities and Victoria.
- Low proportion of general and packaged liquor licences relative to metropolitan and regional municipalities and Victoria.
- High proportion of on premises and restaurant and café liquor licences relative to regional municipalities.

The mix of liquor licences reflects the important role Mornington Peninsula plays in supporting tourism both in the form of hospitality and wine production. It also reflects Mornington Peninsula Shire's strategic location, being an interface council between metropolitan Melbourne and the regional municipalities where the high proportion of restaurant and café licences is consistent the mix of licences typical of metropolitan municipalities and the high proportion of producer's licences consistent with the regional municipalities (refer to Table 3).

Table 3 - Mix and type of liquor licence relative to metropolitan and regional municipalities and Victoria (April 2023)

	Mornington Peninsula		Metropolitan		Regional		Victoria	
Number	#	% total	#	% total	#	% total	#	% total
BYO	35	4	634	4	266	4	900	4
Limited	164	20	2,773	18	1,873	25	4,646	19
Restricted club	29	4	403	3	382	5	785	3
Restaurant and café	202	25	5,436	35	1,302	17	6,738	28
On premises	64	8	1,529	10	518	7	2,049	8
Full Club	20	2	358	2	359	5	717	3
Packaged	65	8	1,564	10	682	9	2,246	9
General	41	5	914	6	1,057	14	1,971	8
Late night general	9	1	374	2	90	1	464	2
Late night on premises	3	0	302	2	41	1	343	1
Late night packaged	-	-	2	0	1	0	3	0
Pre retail	6	1	89	1	21	0	1,226	5
Producer's	106	13	381	2	644	9	1,025	4
Remote sellers	67	8	939	6	247	3	1,186	5
Total	811	100	15,698	100	7,483	100	24,299	100

Source: Liquor Control Victoria

Analysis of the mix and type of licensed premises across the municipality indicates:

- Mornington (n=134), followed by Dromana (n=61), Rosebud and surrounds (n=61), and Red Hill and surrounds (n=58) have the greatest number of liquor licences.
- Mornington (n=20), followed by Rosebud and surrounds (n=13), Dromana (n=11) and Hastings (n=11) have the greatest number of licensed premises selling alcohol for consumption off the premises.[24]
- Mornington (n=5) followed by Hastings (n=2) have the most late-night liquor licences.[25]
- Red Hill and surrounds (n=21), followed by Merricks and surrounds (n=14), Dromana (n=10) and Moorooduc (n=10) have the most liquor licences associated with wineries.[26]

[24] Packaged and general liquor licences
[25] Late night general and late night on-premises
[26] Wine Producer's Licence

4 Alcohol consumption behaviours and alcohol-related harm

The discussion of the alcohol consumption and alcohol-related harm in this section draws on the literature review and feedback gathered during the stakeholder workshop provided in Appendix 6.

4.1 Definitions

The full list of terminology used in this section is provided in the Glossary.

Alcohol and liquor

Alcohol is a psychoactive substance with dependence-producing properties that has been widely used in many cultures for centuries.[27] It is the most widely used drug in Australia.[28]

Liquor is a beverage, or other prescribed substance, intended for human consumption with an alcoholic content greater than 0.5 per cent by volume at a temperature of 20 degrees Celsius.

Amenity[29]

The amenity of an area is the quality that the area has of being pleasant and agreeable. Factors that may be considered in determining whether the grant, variation or relocation of a licence would detract from or be detrimental to the amenity of an area include the harmony and coherence of the environment and any other matters prescribed by the Commission.

The following factors which may occur inside and/or surrounding the licensed premises are considered to detract from or be detrimental to the amenity of the area in which the licensed premises is situated:

- violent behaviour
- drunkenness
- vandalism
- using profane, indecent or obscene language
- using threatening, abusive or insulting language
- behaving in a riotous, indecent, offensive or insulting manner
- disorderly behaviour
- causing nuisance
- noise disturbance to occupiers of other premises
- obstructing a footpath, street or road and
- littering.

[27] Alcohol (who.int)
[28] Alcohol | NHMRC
[29] Liquor Control Reform Act 1998

4.2 Consumption patterns and behaviours

Alcohol consumption patterns and behaviours are influenced by several factors including social and peer pressure, association between consuming alcohol and celebrations, widespread alcohol availability and accessibility of cheap alcohol products and exposure to alcohol advertising and promotion.[30]

The consumption of alcohol is an integral part of Australian culture, with the perception amongst some that celebration and consuming alcohol are intrinsically linked[31] with abstinence being viewed by some as 'unAustralian'.[32] It is estimated around a quarter of people consume alcohol at risky levels at least monthly.[33]

The per capita rate of alcohol consumption and the percentage of people reporting abstinence from alcohol in Australia has either declined or remained relatively stable in recent years.[34] While there have been significant improvements in abstinence among Australians under the age of 30,[35] young people aged 18-24 are more likely to drink to get drunk and consume risky levels of alcohol than any other age group.[36]

People who consume alcohol are more likely to consume it at home than in a licensed premise.[37] The majority of people aged 50 years and older (80 per cent) and 18 to 24 year olds (62 per cent) consume the largest quantity of alcohol at home.[38] This trend is facilitated by the increased use of online alcohol purchases, with 23 per cent of people having alcohol delivered at least weekly, almost half of whom having alcohol delivered within two hours of ordering.[39]

Research shows that there can be changes in the patterns of alcohol-consumption during large-scale disasters. While a large proportion of people retained their pre COVID-19 levels of alcohol consumption during the pandemic, some people reported higher levels of stress with women being more likely to increase their levels of alcohol consumption.[40] This is due to factors such as greater levels of stress, being bored and socially isolated, and spending more time at home.[41]

Recent research on alcohol consumption behaviours in Australia identified the following trends in the twelve months prior to January 2020:[42]

- More than three quarters (79 Per cent) of Australians had consumed alcohol.
- Alcohol has become more accessible due to online and home delivery with 15 per cent of Australians used alcohol home delivery services.
- The home was the most common place for people of all ages to consume alcohol (73 per cent). Other popular settings were pubs, clubs or bars (15 per cent) and restaurants (8 per cent).

[30] National Alcohol Strategy 2019-2028
[31] Alcohol consumption, 2020-21 financial year | Australian Bureau of Statistics (abs.gov.au)
[32] National Alcohol Strategy 2019-2028
[33] National Alcohol Strategy 2019-2028
[34] National Alcohol Strategy 2019-2028
[35] National Alcohol Strategy 2019-2028
[36] Foundation for Alcohol Research and Education *Annual Alcohol Poll 2020*
[37] Foundation for Alcohol Research and Education *Annual Alcohol Poll 2020*
[38] Foundation for Alcohol Research and Education *Annual Alcohol Poll 2020*
[39] Foundation for Alcohol Research and Education *Annual Alcohol Poll 2020*
[40] Farrugia, C and Hinkley, T (2021) *Alcohol-related harm in families and alcohol consumption during COVID-19* Child Family Community Australia, Australian Institute of Family Studies, CFCA Paper No. 60 Alcohol-related harm in families and alcohol consumption during COVID-19 | Australian Institute of Family Studies (aifs.gov.au)
[41] Farrugia, C and Hinkley, T (2021) *Alcohol-related harm in families and alcohol consumption during COVID-19* Child Family Community Australia, Australian Institute of Family Studies, CFCA Paper No. 60 Alcohol-related harm in families and alcohol consumption during COVID-19 | Australian Institute of Family Studies (aifs.gov.au)
[42] ALCPOLL-2020-SUMMARY-OF-KEY-FINDINGS.pdf (fare.org.au)

- More than a quarter (26 per cent) of Australians were unaware of the Guidelines to reduce health risks from consuming alcohol.
- More than a quarter (28 per cent) of Australians consume alcohol at levels that exceed the Guidelines for short term risk.
- More than three quarters (77 per cent) of Australians feel more needs to be done to reduce the harm caused by alcohol.
- A quarter (25 per cent) felt that pubs, clubs and bars should close by midnight and 45 per cent believe bottle shops should close at 10pm in order to reduce alcohol-related harm.

Feedback gathered during the stakeholder engagement workshop indicated the following locations are associated with different alcohol consumption patterns and behaviours in the municipality:

- Main Street **(Mornington):** There are more alcohol related incidents in Mornington than Frankston. Mornington has a high concentration of social housing. There is a spike of fake IDs in Mornington. Issues occur at the Melbourne Racing Club in Mornington.
- **Hastings:** Consumption of alcohol typically occurs in the home because it is easily accessible due to multiple packaged liquor licences/bottle shops and there are few on-premises licences compared with Mornington. People also consume alcohol in public places such as the Foreshore Village Green.
- **Rosebud:** People consume alcohol on the beach and in backyards.

This feedback also indicated different consumption patterns in the following settings in the municipality:

- **Short-stay accommodation:** Consumption of alcohol often occurs in short stay accommodation when there are larger groups of people and where the accommodation is close to licensed premises that sell alcohol for consumption off the premises.
- **Fast food outlets:** Alcohol consumption often occurs in the public realm surrounding fast food outlets that have extended trading hours.
- Consumption of alcohol often occurs on the **beaches,** in some instances by people experiencing homelessness.

4.3 Drivers influencing alcohol consumption in Mornington Peninsula Shire

Feedback gathered during the stakeholder engagement workshop provided an insight into specific drivers influencing alcohol consumption in the municipality.

- Mornington Peninsula is a challenging place to address AOD issues because the culture normalises alcohol consumption and is an important part of economic prosperity here. The Shire is known for its wineries.
- There is limited public transport in the Shire.
- Australian culture normalises binge drinking culture “I don’t drink during the week”.
- Decriminalization of public drunkenness will have a significant impact. Mornington Peninsula Shire currently has the second highest arrest rate for public drunkenness in the State.[43]
- Technology has increased the availability of alcohol by making it easy to purchase alcohol online and have it delivered.

[43] Personal comment, Victoria Police

- The issues in Mornington Peninsula are temporal – over the weekends, during tourist seasons and schoolies the issues are more acute, during other times of the year the issues are more chronic. During the year police call outs involving young people are low, but during schoolies[44] it is a challenge as some venues exceed their maximum capacities.
- Some children place pressure on parents to allow them to drink, saying other parents allow their children to drink.
- Alcohol delivery is not well-regulated and increases accessibility for people that are isolated.

One participant highlighted the need to consider the specific reasons people consume alcohol at risky levels which could include a coping mechanism, self-medication, the need to feel connected and 'fit in' socially.

4.4 Determinants of alcohol-related harm

The impact of alcohol consumption on an individual's health and wellbeing is largely determined by the total volume of alcohol they consume and their alcohol consumption behaviours.[45]

There is a substantial body of evidence that indicates alcohol is a contributing factor in family violence incidents and that alcohol abuse / misuse is often underpinned by other health and social challenges such as mental illness.[46]

There are a number of socio-economic, health, physical and contextual factors that determine the volume of alcohol people consume and the extent to which alcohol can cause harm to the individual and the wider community.

Socio-economic profile and health status

The levels of alcohol-related harm are not experienced uniformly across the population.[47] The more individual vulnerabilities a person has, the more likely they are to develop alcohol-related problems if they consume alcohol.[48]

The literature review identified following groups considered at an elevated risk of alcohol-related harms.

- Men are nearly three times as likely to die from alcohol-related harm compared to women (8.3 and 2.8 deaths per 100,000 respectively).[49]
- Aboriginal and Torres Strait Islander people are more likely to abstain from drinking alcohol than non-Aboriginal and Torres Strait Islander people. However, 35 per cent of Aboriginal and Torres Strait Islander People who drink at risky levels are likely to experience alcohol-related injury compared to non-Aboriginal and Torres Strait Islander people (35 per cent compared to 25 per cent).[50] Alcohol-related mortality rates among Aboriginal and Torres Strait Islanders are 4.9 times higher than among non-Aboriginal and Torres Strait Islanders.[51]

[44] Schoolies Week is a 3 week graduation festival which is to celebrate Year 12 school leavers from around Australia. The Schoolies Week festival usually take place during the first 3 weeks following the graduation – starting in Mid November.
[45] Alcohol (who.int)
[46] Morgan A & McAtamney A 2009. *Key issues in alcohol-related violence*. Research in practice no. 4. Canberra: Australian Institute of Criminology. https://www.aic.gov.au/publications/rip/rip4
[47] National Alcohol Strategy 2019-2028
[48] Alcohol (who.int)
[49] Foundation for Alcohol Research and Education *Alcohol-induced deaths in Australia January* 2023 Alcohol-induced-deaths-in-Australia.pdf (fare.org.au)
[50] National Alcohol Strategy 2019-2028
[51] Department of Health, Commonwealth of Australia (2018) *National Alcohol Strategy*

- People living in remote areas are 1.5 times as likely as people in major cities to consume alcohol at risky levels.[52]
- Some evidence suggests people experiencing socio-economic disadvantage are at an elevated risk of alcohol-related harm[53] while other research indicates people living in areas of least disadvantage are most at risk. [54] The mixed evidence could suggest that, while the latter group is more likely to consume alcohol at risky levels, the former group vulnerable to the impacts of alcohol-related harm due to their compromised resilience.
- While risky alcohol consumption among people from culturally and linguistically diverse backgrounds is lower than the wider population (5.4 per cent compared to 18.7 per cent), they are at an elevated risk of harm as they may face barriers to receive culturally appropriate help and support.[55]
- The type of harms is determined by age with younger people being more at risk of alcohol-related accidents and injuries and older people being more at risk of alcohol-related diseases.[56]
- Around 37 per cent of people who report problems with alcohol also have co-occurring anxiety and/or mood disorders.[57]
- Children whose parents or guardians experience alcohol dependence are more likely to experience child abuse or neglect.[58]
- Some adults in their 40s, 50s and 60s may continue the risky alcohol consumption behaviours they developed in their earlier years with compromised health and wellbeing status among people aged 65 years and over being at an elevated risk of harm from risky alcohol consumption behaviours.
- LGBTIQA people are less likely than heterosexual people to be abstainers or ex-drinkers (14.4 per cent compared to 21.3 per cent), are more likely to be lifetime risk drinkers (25.8 per cent compared to 17.2 per cent and are more likely to consume alcohol at risky levels.[59]

Feedback gathered during the stakeholder workshop indicated the following groups are at an elevated risk of alcohol-related harm in Mornington Peninsula Shire:

- **Young people** – Some of the reasons young people in the municipality are at an elevated risk of harm include limited public transport and opportunities to participate in social and recreational activities, unlimited access to money to purchase alcohol, they are at a life stage where taking risks is the norm, peer pressure, boredom and family situation. Young people more likely to frequent pubs and restaurants and some young people in more the affluent communities in Mornington, Mt Eliza, Mt Martha have access to cash and fake ID's, discouraging some young people from reporting issues. Alcohol-related harm among young people is more seasonal, peaking during holiday season and end of year schoolies.
- **Older people** Some older people experience social isolation and loneliness and can easily access alcohol. Older people both frequent cafes and restaurants and purchase packaged liquor to consume at home. Issues among older people are more chronic and occur throughout the year.

[52] National Alcohol Strategy 2019-2028
[53] Alcohol (who.int)
[54] AAlcohol consumption, 2020-21 financial year | Australian Bureau of Statistics (abs.gov.au)
[55] National Alcohol Strategy 2019-2028
[56] National Alcohol Strategy 2019-2028
[57] National Alcohol Strategy 2019-2028
[58] National Alcohol Strategy 2019-2028
[59] National Alcohol Strategy 2019-2028

- **People experiencing socio-economic disadvantage** – There is a higher prevalence of family violence in communities experiencing socio-economic disadvantage in the municipality, particularly those with a high concentration of licensed premises. In these communities alcohol-related issues are experienced in public housing and among people who are unemployed. People with greater disadvantage more likely to drink at home.
- People presenting in **financial crisis** often have AOD and gambling addiction issues.

Anecdotal evidence indicates that previously the ratio of male to females experiencing harm was 5:1, in recent years the ratio is more likely to be 1:1.

Licensed premises context

There are several interrelated features of physical context within which alcohol is sold, served and consumed that determine the potential level of alcohol-related harm in a community.

- **Density of liquor licences**[60]. Research conducted in Melbourne between 1996 and 2005 found that adding a new outlet in a postcode increased the family violence rate in police statistics by an average of 28.6%. [61] Other research has found that a 10 per cent increase in off-licence liquor outlets (bottle shops) is associated with a 3.3 per cent increase in family violence. Increases in family violence were also apparent with the increase in general (pub) licences and on-premise licences - for every 10,000 additional litres of pure alcohol sold by off-site outlets, family violence rose by 26 per cent in that area.[62] The potential for family violence assaults increases where the concentration of hotels is greater than 2: 1,000 population and packaged liquor licences is greater than 0.75 per 1,000 people.[63]. In Mornington Peninsula Shire the rates are 0.3 hotels per 1,000 people and 0.01 packaged liquor licences per 1,000 people. Anecdotal evidence gathered during the stakeholder workshop indicated that the concentration of licensed premises in Mornington is one of the reasons for the high incidence of alcohol-related harm in this location.
- **Proximity:** For those living in more disadvantaged areas, not having liquor licences selling alcohol for consumption off the premises-licences available within 800 m, or on-licenses available within 400 m were protective of self-rated health.[64]Anecdotal evidence gathered during the stakeholder workshop indicated that amenity issues are greater in areas where dwellings are located in close proximity to concentrations of licensed premises.
- **Mix and type of liquor licences:** Premises selling alcohol for consumption off the premises pose increased risks[65] with 41.7% of all alcohol-related attendances during high alcohol hours reported consuming last drinks at identifiable hotels, bars, nightclubs. [66] Proximity of premises selling alcohol for consumption to late night clubs and pubs can contribute to pre-loading. Areas with a concentration of risky venues such as large late-night venues can contribute to a culture of risky alcohol consumption.
- **Trading hours:** The later the trading hours, the greater the risk of harm. Hours beyond 1am are characterised by significant increases in police incidents and ambulance attendances.

[60] Livingston M, Wilkinson C, Room R. Community impact of liquor licences: an Evidence Check rapid review brokered by the Sax Institute (www.saxinstitute.org.au) for the NSW Ministry of Health, 2015.
[61] Foundation for Alcohol Research and Education (2015) Policy options paper : Preventing alcohol-related family and domestic violence
[62] Livingston, M. (2011), 'A longitudinal analysis of alcohol outlet density and domestic violence'. *Addiction*, 106: 919–925. doi:10.1111/j.1360-0443.2010.03333.x
[63] Donnelly, N. Menendez, P and Mahoney, N (2014) The effect of liquor licence concentrations in local areas on rates of assault in New South Wales NSW Bureau of Crime Statistics and Research, Bulletin Number 181, December 2014
[64] Badland, H., Mavoa, S., Livingston, M., David, S., *and* Giles-Corti, B. *(2016)* Testing spatial measures of alcohol outlet density with self-rated health in the Australian context: Implications for policy and practice. Drug Alcohol Rev, 35*:* 298–306*. doi:* 10.1111/dar.12341.
[65] Livingston M, Wilkinson C, Room R. Community impact of liquor licences: an Evidence Check rapid review brokered by the Sax Institute (www.saxinstitute.org.au) for the NSW Ministry of Health, 2015.
[66] Miller, P Droste, N, Bakers, T and Gervis, C (2015) 'Last drinks: A study of rural emergency department data collection to identify and target community alcohol-related violence' Emergency Medicine Australasia

Although usually related to entertainment precincts that have a cluster of similar venue types, it also relates to alcohol-related incidents on private property which is often the result of the consumption of packaged liquor. [67] Each additional high-alcohol hour that a venue can be open for is associated with a 72% increase in the number of recorded assaults. [68] Staggered closing hours among venues near one another can contribute to bar hopping. Anecdotal evidence gathered during the stakeholder workshop indicated that the 1am closure of licensed premises in Mornington has contributed to a reduction in alcohol-related incidences in this area.

- **Venue size:** Larger floor space represents a greater risk of harm for larger packaged liquor stores similar to larger bars (on-premises and late night on-premises licence) or hotels (general licence and late-night general licence). [69] Venues with maximum capacities between 501 and 1000 are 6.1 times more likely to have an assault recorded compared with venues with a maximum capacity between 0 and 100. [70] However, anecdotal evidence gathered during the stakeholder workshop indicated that in some instances there are fewer alcohol-related incidents at larger venues as they have experienced staff who manage RSA well, whereas the smaller venues often generate more challenges.
- **Activity:** Licensees offering gaming facilities (where the evidence is stronger for hotel gaming relative to club gaming). [71] This is supported by evidence gathered during the stakeholder workshop.
- **Venue management:** Licensees that have received one or more infringements for patron intoxication are likely to operate venues associated with alcohol-related harm.[72]This is supported by evidence gathered during the stakeholder workshop.
- **Venue design:** Internal measures such as venue layout and design, the placement of signs, furniture and other items as well as lighting, climate control and noise attenuation. Refer to Design Guidelines for Licensed Venues, July 2017 for more details.[73]
- **Design of the public realm outside the licensed premises:** External measures, including management of the streetscape and public spaces adjacent to licensed premises can affect patron movement, real and perceived safety, cleanliness and hygiene and the potential impact on the amenity of adjacent properties. Refer to Design Guidelines for Licensed Venues, July 2017 for more details.[74]
- **Advertising:** Alcohol advertising is directly linked to higher levels of alcohol consumption in general, and risky levels of alcohol consumption in particular, particularly among young people.[75], [76] The marketing and consumption of alcohol is an integral part of Australian sporting culture. This increases young people's exposure to alcohol when participating in

[67] Department of Justice and Community Safety Regulatory Impact Statement Liquor Control Reform Regulations 2023
[68] Miller, P et al (2021) "Size does matter: An exploration of the relationship between licensed venue capacity and on-premise assaults *Alcohol Clinical and Experimental Research* https://doi.org/10.1111/acer.14621
[69] Department of Justice and Community Safety Regulatory Impact Statement Liquor Control Reform Regulations 2023
[70] Department of Justice and Community Safety Regulatory Impact Statement Liquor Control Reform Regulations 2023
[71] The Allen Consulting Group (2009) *Alcohol-related harm and the operation of licensed premises* Report to the Department of Justice
[72] The Allen Consulting Group (2009) *Alcohol-related harm and the operation of licensed premises* Report to the Department of Justice
[73] Design Guidelines for Licensed Venues_MAY_2017_FINAL.pdf (vgccc.vic.gov.au)
[74] Design Guidelines for Licensed Venues_MAY_2017_FINAL.pdf (vgccc.vic.gov.au)
[75] Jernigan D, Noel J, Landon J, Thornton N, Lobstein T. Alcohol marketing and youth alcohol consumption: a systematic review of longitudinal studies published since 2008. Addiction [Internet]. 2017 [01.08.2023]; 112(S1):[7-20 pp.].
[76] Bryden A, Roberts B, McKee M, Petticrew M. A systematic review of the influence on alcohol use of community level availability and marketing of alcohol. Health & Place [Internet]. 2012 [12.07.2023]; 18(2):[349-57 pp.]

sporting training and events where alcohol is served, or when watching sporting events on television.

- **Access to public transport:** A lack of public transport can compromise efficient patron dispersal when the venues close.

Analysis of the presence of these risk factors in the municipality's licensed premises indicates the following (refer to Appendix 5):

- There are 13 venues operating beyond 1am, nine of which operate under a late-night general licence, three of which operate under an on-premises licence and one of which operates under a restaurant and café licence.
- Six of the 13 late night venues are located in Mornington and two are located in Hastings.
- Nine of the 13 late night venues have patron capacities within the risk category (500 to 1,000)
- Nine of the 13 late night venues operate as gaming venues.
- Eight of the 13 late night venues have all three risks namely operating after 1am, patron capacity between 500 and 1,000 and operating as a gaming venue.

4.5 Impacts of alcohol-related harm

Social

Feedback gathered during the stakeholder workshop indicated that while the consumption of alcohol on the Mornington Peninsula contributes to social vitality, it is also associated with a range of social harms including social isolation and exclusion, disconnection with support services, family and relationship breakdown, generational trauma, child neglect and perceived safety and security.

Health and safety

While alcohol is for the most part consumed at levels of low immediate risk, some people consume alcohol at levels that increase their vulnerability to alcohol-related harms, including injury and disease.[77]

The harmful use of alcohol can result in harm to the individual, and other people such as family members, friends, co-workers and strangers. In 2021, 1,559 people in Australia died of an alcohol-induced death, such as chronic conditions like liver cirrhosis or acute conditions such as alcohol poisoning. Alcohol-induced deaths were recorded at a rate of 5.4 deaths for every 100,000 people living in Australia – the highest rate reported in 10 years.[78]

Alcohol is a causal factor in more than 200 diseases, injuries and other health conditions. The consumption of alcohol is associated with a risk of developing health problems such as mental and behavioural disorders, including alcohol dependence, and other noncommunicable diseases such as liver cirrhosis, some cancers and cardiovascular diseases.[79] A causal relationship has been established between harmful drinking and the incidence or outcomes of infectious diseases such as tuberculosis and HIV.[80]

A significant proportion of the disease burden attributable to alcohol consumption is caused by unintentional and intentional injuries, including those involving road traffic crashes and suicide.[81]

[77] Alcohol consumption, 2020-21 financial year | Australian Bureau of Statistics (abs.gov.au)
[78] Australian Bureau of Statistics (2021), *Causes of Death, Australia*, ABS Website
[79] Alcohol (who.int)
[80] Alcohol (who.int)
[81] Alcohol (who.int)

Alcohol abuse and misuse are associated with interpersonal violence.[82] In 2015-16 37.2 percent of total physical assaults were committed by people under the influence of alcohol. Further, alcohol was involved in 34 per cent of intimate partner violence incidents with more than half of the alcohol consumed having been purchased between 500k and 10km from the incident location.[83] Family violence is recognised as one of the harms caused by alcohol abuse and misuse in the *Liquor Control Reform Act 1998 (as amended 2021)*. Victims of intimate and family violence who use alcohol may be particularly vulnerable. [84]

Consumption of alcohol has the potential to negatively impact families by compromising the ability of parents and carers to nurture the social, emotional and material needs of children and contributing to family violence.[85] Consumption of alcohol during pregnancy may cause birth defects and behavioural and neurodevelopmental abnormalities. Foetal alcohol spectrum disorder (FASD) is a lifelong neurodevelopmental condition caused by a child's exposure to alcohol while in the womb. Children with FASD can face significant lifelong challenges with physical activities, communication, learning, memory, and behaviour. This can lead to problems at school, their personal lives and result in antisocial and disruptive behaviour.[86] It is estimated that half of pregnant women consume alcohol during their pregnancy and alcohol is involved in 34 per cent of intimate partner violence incidents and 29 per cent of family violence incidents.[87]

The risk of having a mental illness is around four times higher for people who consume alcohol at risky levels than for people who do not.[88]

The social and economic costs of alcohol-related harm are borne by service providers, employees, the judicial and health system and local government services.[89] It is estimated that 10-15 per cent of emergency department presentations are alcohol-related and 25 per cent of all frontline police officers time is taken by alcohol-related crime.[90] Research has shown that almost half of Australian adults experience harm from other people's drinking.[91]

Feedback gathered during the stakeholder workshop supported the findings from the literature review, identifying specific health and safety harms including assaults and family violence, accidents, post-traumatic stress disorder (PTSD), malnutrition and FASD.

Economic

Licensed premises have the potential to contribute to economic viability by supporting tourism, local businesses and land use diversity. While this positive impact was identified by the stakeholders during the workshop, participants identified several negative economic impacts associated with alcohol-related harms including unemployment caused by job absences, homelessness, reduced disposable income and increased reliance on material aid.

In addition, participants indicated the costs associated with addressing alcohol-related harm in the community are borne by emergency service providers (police call outs, hospital admissions, ambulance attendances), welfare and support services (material aid and counselling) and the judiciary system (court appearances and law enforcement). In addition, Council officers indicated alcohol-

[82] Department of Health, Commonwealth of Australia (2018) *National Alcohol Strategy*
[83] Department of Health, Commonwealth of Australia (2018) *National Alcohol Strategy*
[84] Sutherland, P., McDonald, C., and Millsteed, M. (2016) *Family violence, alcohol consumption and the likelihood of criminal offences* Crime Statistics Agency
[85] Farrugia, C and Hinkley, T (2021) *Alcohol-related harm in families and alcohol consumption during COVID-19* Child Family Community Australia, Australian Institute of Family Studies, CFCA Paper No. 60 Alcohol-related harm in families and alcohol consumption during COVID-19 | Australian Institute of Family Studies (aifs.gov.au)
[86] Alcohol and pregnancy—what is foetal alcohol spectrum disorder? | Queensland Health
[87] National Alcohol Strategy 2019-2028
[88] National Alcohol Strategy 2019-2028
[89] National Alcohol Strategy 2019-2028
[90] National Alcohol Strategy 2019-2028
[91] Alcohol's harm to others in Australia - Alcohol and Drug Foundation (adf.org.au)

related harms increases costs associated with waste collection, maintenance and cleaning of public places caused by property damage, anti-social behaviour and enforcement of local laws and planning permit conditions.

Environmental amenity

The presence of well-managed and designed licensed premises can enhance the amenity of the surrounding area through activation of streetscapes and enhancing natural surveillance.

People consuming alcohol at risky levels may detract from amenity of the area surrounding licensed premises through anti-social behaviour (urination, vomiting), property damage and litter and noise. These issues were also identified by the stakeholders during the stakeholder workshop.

4.6 Vulnerability to alcohol-related harm in Mornington Peninsula Shire

The Bayside Peninsula Area Catchment Plan identified the following priority groups in the community considered to be at an elevated risk of alcohol-related harm:

- Aboriginal and Torres Strait Islander people
- People with mental health conditions
- Young people
- Older people
- People in contact with the criminal justice system
- Culturally and linguistically diverse populations
- People identifying as lesbian, gay, bisexual, transgender, and/or intersex.

Analysis of the socio-economic determinants of harm within the municipality indicates the communities in Hastings, Rosebud, Tootgarook and Capel Sound are at an elevated risk of alcohol-related harms. These communities also display high levels of socio-economic disadvantage relative to Mornington Peninsula Shire.

Analysis of the three venue specific risk factors, namely venue size, trading hours and operating as a gaming venue indicates there is a concentration of high-risk venues in Mornington and Hastings.

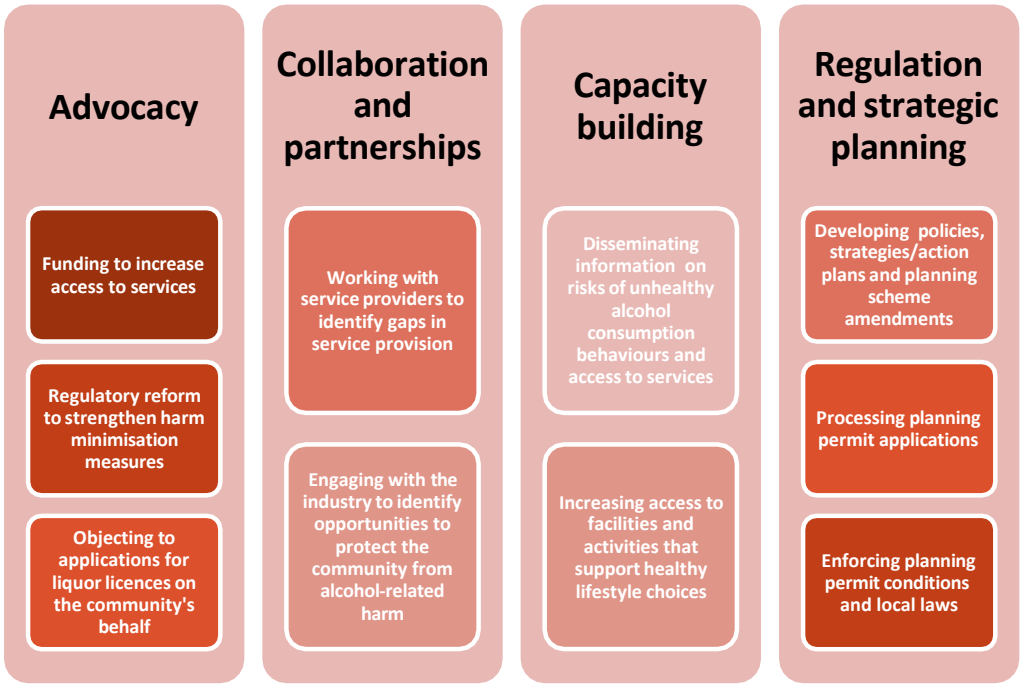
Overall analysis indicates the communities of Mornington and Hastings are at specific risk of alcohol-related harms in the municipality.

5 Regulatory and strategic framework

5.1 Statutory instruments

As the closest tier of government to the community, Council plays a significant statutory role in creating environments which establish and maintain healthy lifestyle behaviours and prevent alcohol-related harm. These statutory roles are fulfilled in collaboration with other agencies such as peak bodies, service providers, advocacy groups and the industry (refer to Figure 9).

Figure 9 – Council's statutory roles



Source: SymPlan

These statutory roles are defined by the following legislative instruments.

Planning and Environment Act 1987

The *Planning and Environment Act 1987* is the key legislative tool involved in assessing planning permit applications for licensed premises.

The purpose of the *Planning and Environment Act 1987* is to guide planning for the use, development and protection of land in Victoria. The Act sets out the Victoria Planning Provisions (VPPs), regulations for the operation and any potential amendments of the Mornington Planning Scheme, and other processes relating to the operation of land use in the municipality.

There is no reference to health and wellbeing in the objectives of the *Planning and Environment Act 1987.*

Amendments to the *Planning and Environment Act, 1987* in 2015 now require Council to have regard to the number of objectors in considering whether the use of development of land may have a significant social effect.

Liquor Control Reform Act 1998 (amended 2021)

The *Liquor Control Reform Act 1998* (amended 2021) is the statutory instrument regulating the operation of licenced premises.

Relevant objectives of the *Liquor Control Reform Act 1998* (amended 2021) are:

(a) to contribute to minimising harm including by ensuring the supply of liquor contributes to and does not detract from the amenity of community life, encouraging a culture of responsible consumption of alcohol, and reducing risk drinking of alcohol.

(b) to facilitate the development of a diversity of licensed facilities reflecting community expectations.

(c) to contribute to the responsible development of the liquor, licensed hospitality and live music industries.

The purpose of the *Liquor Control Reform Amendment Act 2021* is to modernise and reform Victorian liquor laws. This legislation introduces the following changes:

- Parties now have the opportunity to appeal an 'internal review' on the decision itself, not just on a point of law.
- The new definition of harm arising from the misuse and abuse of alcohol includes:
    - Harm to minors, vulnerable persons or communities, including groups within communities.
    - Family violence (For Councils this means the Commission must consider matters such as how a proposed granting of a licence would impact the rates of family violence)
    - Anti-social behaviour, including behaviour that causes personal injury or property damage.
- Restaurant and café licences now permit the sale of alcohol for consumption off the premises if it is purchased as part of a take-away meal.
- Holders of a restaurant and café, general, late night (general), on premises and late night (on-premises) will automatically be authorised to trade until 1am every day of the week. This is likely to cause tensions between planning permit conditions and liquor licence conditions if the trading hours on the former are more restrictive.
- Large format (larger than 750 sqm) packaged liquor outlets will be required to go through a new 'high risk' assessment, as part of this applicants will need to supply a community impact assessment which will consider some of the following:
    - Local consultation that has been undertaken with the local community (within the LGA)
    - The positive and negative social and economic impacts

The Act defines the types of liquor licences in Victoria (refer to Appendix 2).

Under the Liquor Control Reform Act 1998, certain areas, including entertainment precincts, shown to have a greater tendency for alcohol related violence and antisocial behaviour can be classified as 'designated areas'. This determination is made by the Victorian Liquor Commission (VLC) in consultation with the Chief Commissioner of Police. On 26 November 2020 the Commission declared the area within the Mornington CBD and surrounding areas a designated area (refer to Appendix 2).

Victoria Police have the power to ban people from licensed premises and designated areas for up to 72 hours for offences including drunkenness, physical assault, destroying or damaging property and failure to leave licensed premises.

Police also have the power to seek a court order to ban repeat offenders from designated entertainment precincts for up to 12 months.

Local Government Act 2020

The *Local Government Act 2020* provides councils with the authority to ensure the peace, order and good governance in its municipal district for the benefit and wellbeing of the municipal community. The Act states this role is to be fulfilled in collaboration with other Councils and Governments and statutory bodies.

Public Health and Wellbeing Act 2008

The *Public Health and Wellbeing Act 2008* gives local government specific statutory responsibilities to plan for and contribute to protecting and improving health and wellbeing. Local governments are required to protect, improve and promote public health and wellbeing by creating supportive environments, strengthening the community's capacity to lead healthy lives, developing and implementing public health policies and programs, intervening if the community's health is potentially affected and collaborating with others involved in building healthy communities.

The Act promotes evidence-based planning and decision-making and is founded on the precautionary principle which means if there is a risk to the community's health and wellbeing, the absence of scientific evidence should not justify postponing measures to prevent or control the risk.

Gender Equality Act 2020

One of the purposes of the *Gender Equality Act 2020* is to require councils to promote gender equality in their policies, programs and services.[92]

The Act is founded on the following gender equality principles:

1. All Victorians should live in a safe and equal society, have access to equal power, resources and opportunities and be treated with dignity, respect and fairness.
2. Gender equality benefits all Victorians regardless of gender.
3. Gender equality is a human right and precondition to social justice.
4. Gender equality brings significant economic, social and health benefits for Victoria.
5. Gender equality is a precondition for the prevention of family violence and other forms of violence against women and girls.
6. Advancing gender equality is a shared responsibility across the Victorian community.
7. All human beings, regardless of gender, should be free to develop their personal abilities, pursue their professional careers and make choices about their lives without being limited by gender stereotypes, gender roles or prejudices.
8. Gender inequality may be compounded by other forms of disadvantage or discrimination that a person may experience based on Aboriginality, age, disability, ethnicity, gender identity, race, religion, sexual orientation, and other attributes.
9. Women have historically experienced discrimination and disadvantage based on sex and gender.

[92] Section 1 (b) Gender Equality Act 2020

10. Special measures may be necessary to achieve gender equality.

Section 9(1) of the Act requires Council to prepare a gender impact assessment (GIA) when developing or reviewing any policy, program or service that has a direct and significant impact on the public. Section 9(2) specifies what the GIA must contain.

Mornington Peninsula Shire Consumption of Liquor Local Law

The Mornington Peninsula Shire Consumption of Liquor Local Law (Amended) 2017 is made under Section 71 of the *Local Government Act 2020.* The purposes of this Local Law are to:

(a) Regulate and control the consumption, possession or control of *liquor* in designated areas, and prohibit the possession of *liquor* in other areas, of the *Municipal District.* A designated area covers land where alcohol-related violence or disorder has occurred in the vicinity of licensed premises. Whereas the Liquor Control Reform Act 1998 regulates behaviour in designated areas within the licensed premise, the Liquor Local Law regulates the consumption of alcohol in public places in the areas surrounding the licensed premise.

(b) Protect against behaviour which causes detriment to the amenity and environment of the *Municipal District.*

(c) Protect the community interest.

(d) Provide for the enforcement of this Local Law, including the issuing of infringement notices.

(e) Provide for the administration of Council powers and functions in relation to the consumption, possession or control of *liquor* on roads and Council land.

(f) Lead and educate the public as to what is, and what is not, appropriate behaviour.

(g) Provide generally for the peace, order and good government of the *Municipal District*.

In addition to the Mornington CBD and surrounds designated area, the Local Law identifies parts of the municipality within which the consumption and possession of alcohol in public spaces other than in sealed containers is entirely prohibited, public spaces within which the consumption of possession of alcohol other than in sealed containers is prohibited during the hours of 8pm and 8am (refer to Appendix 3).

The Local Law makes provision for some exemptions to these restrictions, including in premises with a liquor licence or permit and in camping sites with a current camping permit.

5.2 Strategies, policies and plans

5.2.1 Commonwealth and State

The aim of the *National Alcohol Strategy 2019-2023* is to prevent and minimise alcohol-related harms among individuals, families and communities. This strategy focuses on:

1. Improving community safety and amenity by working to better protect the health, safety and social wellbeing of those consuming alcohol and those around them.
2. Managing alcohol availability, price and promotion by reducing opportunities for availability, promoting and pricing contributing to risky alcohol consumption.
3. Supporting individuals to obtain help and systems to respond by facilitating access to appropriate treatment, information and support services.
4. Promoting healthier communities by improving the understanding and awareness of alcohol-related harms in the community.

The Strategy indicates the responsibility for achieving this aim is shared between local government, the Commonwealth and the State government. It also highlights the following opportunities for local governments to achieve the aim:

- Implementing best evidence-based design specifications to enhance the safety and amenity of the public realm.
- Building the capacity of local community stakeholders to contribute to liquor licencing policies.

The *VicHealth Alcohol Strategy 2019-2023* focuses on changing risky drinking cultures and establishing setting that support low-risk drinking cultures. The Strategy focuses on shifting the emphasis from the behaviour of individuals to the shared responsibility of groups and implementing projects to support organisations to design effective interventions.

Three of the priorities in the Victorian Public Health and Wellbeing Plan 2019-2023 are reducing injury, preventing all forms of violence and reducing harmful alcohol and drug use. The objectives of the 'Reducing harmful alcohol and drug use' priority are:

- Increased capability in all service systems including mental health, housing, child protection and family violence to assist people with alcohol and other drug-related issues.
- Better outcomes for those who access treatment, reducing harm (such as overdose, drug-related illness) and improving social outcomes (such as employment, stable housing and family reunification).
- Improved capability of primary care providers to assist people to manage alcohol and other drug-related issues before treatment is required or complexity develops.
- Change risky drinking cultures and deliver environments that support low-risk drinking.

Council's capacity to address this priority is focused on the first and fourth objectives.

5.2.2 Bayside Peninsula Area Catchment

The *Bayside Peninsula Area Catchment Plan 2023* provides an analysis of factors driving support and demand for alcohol and other drug (AOD) services across seven municipalities in its catchment, namely Bayside, Frankston, Glen Eira, Kingston, Mornington Peninsula, Port Hillip and Stonnington.

The four priority action areas providing the framework for this Plan are:

1. Improve and integrate service access.
2. Analysis and facilitation of education and training opportunities to support ongoing development of a capable, skilled and responsive AOD workforce.
3. Enhance harm reduction responses amongst people who use drugs.
4. Identify catchment priorities, monitor activity and build partnerships.

Council plays a potential role in supporting these priority action areas by facilitating partnerships and contributing to harm reduction responses by disseminating information on the risks and impacts of unhealth alcohol consumption behaviours and cultures.

5.2.3 Mornington Peninsula Shire

Community Vision 2040

Two of the seven principles developed supporting the Community Vision are:

- Principle 3 *Community* – Support an inclusive, connected and safe society. This principle focuses on facilitating universal access and social integration through services and safe events.
- Principle 4 *Economy* – Innovative planning and development of the local economy. This principle focuses on enhancing economic and employment opportunities.

Council and Wellbeing Plan 2021-2025

Two of the three themes in the Council and Wellbeing Plan 2021-2025 are 'A robust, innovative and diverse economy' and 'a flourishing, healthy and connected community'.

The following strategies have been developed under these themes:

- Working with the tourism and hospitality industries to support recovery post the COVID1-9 Pandemic and promote Mornington Peninsula as a premier tourism destination.
- Providing a harm minimisation approach to alcohol through the Alcohol Management Policy 2017
- Increasing social connection and reducing social isolation.
- Delivering programs to prevent, recognise and respond to mental health and wellbeing concerns.
- Advocating for more local services to meet current and future community needs.

Three of the eight health priorities forming the Plan's framework are preventing all forms of violence, improving mental wellbeing and reducing harmful alcohol and drug use.

Mornington Peninsula Shire Alcohol Management Policy 2017

The purpose of this Policy is to enhance safety, amenity, health and wellbeing in Mornington Peninsula Shire through a harm minimisation approach to the management of alcohol.

The objectives of this Policy are to:

- Minimise alcohol-related harm to individuals, families and the community.
- Provide a clear and transparent approach to alcohol management and guide decision-making surrounding alcohol provision and consumption.
- Support economic vitality and create safe and enjoyable environments in and around licensed venues, entertainment precincts and public places that enhance actual and perceived levels of public safety.
- Reduce the likelihood of alcohol related anti-social behaviour, violence, vandalism or disorderly conduct.

The Policy is founded on a harm minimisation approach which seeks to reduce demand for and supply of alcohol and reducing the adverse impacts of alcohol consumption. These outcomes will be achieved by reducing the misuse of alcohol, building the community's capacity to reduce their dependence on alcohol, managing and regulating the availability of alcohol through the planning process and enforcement of local laws.

Mornington Peninsula Planning Scheme

The purposes of Clause 52.27 Licensed Premises of the Mornington Planning Scheme are to ensure that licensed premises are situated in appropriate locations and that the impact of the licensed premises on the amenity of the surrounding area is considered. This clause requires a planning permit for a new or different liquor licence[93]; and the extension of the hours of trade, number of patrons or area within which liquor is consumed or supplied. The schedule to this clause may prohibit a permit to use land to sell or consume liquor under a particular type of licence. At present the schedule to Clause 52.27 of the Mornington Peninsula Planning Scheme does not list any liquor licence types which may be prohibited.

Decision guidelines in this clause focus on assessing the amenity of the liquor licence on the surrounding area. Specific factors include hours of operation, number of patrons and the cumulative impact of any existing licensed premises and the proposed licensed premises.

Practice Note 61 Licensed Premises: *Assessing Cumulative Impact* was prepared to guide the assessment of the potential cumulative impacts of licences premises on amenity.

Liquor Accords and Forums

A liquor accord is a co-operative arrangement approved by Liquor Licensing Victoria aimed at developing safe and well managed environments in and around licensed premises in the local context. It is part of an overall strategy that seeks to foster a responsible drinking culture; ensure safety in the local community; and promote effective communication and problem solving between licensees and key stakeholders. Liquor accords may include representatives from licensed premises, businesses, councils, police, government departments and other community organisations.

A liquor forum is a meeting of licensees, police, local council and liquor industry representatives who meet regularly. The outcome of a liquor forum may be the preparation of a formal liquor accord.

There are two liquor accords operating in Mornington Peninsula Shire.

The Mornington Safe City Liquor Accord 2023-2027 details actions members will take to promote the responsible service of alcohol, particularly in relation to intoxicated persons and underage drinking. It also provides guidelines on banning access to the premises and refusing the supply of liquor on or off the premises by members of the public who may contribute to the misuse or abuse of alcohol.

The Southern Peninsula Liquor Accord 2022-2023 details actions on responsible service of alcohol, responsible advertising and promotions, intoxication, safety and security, serving minors, acceptable forms of identification, management of events, administration, staff training, amenity and operating packaged liquor outlets.

[93] Other than a limited licence or a licence to manufacture liquor.

6 Summary and conclusions

Mornington Peninsula Shire's licensed premises play an important role in supporting tourism and the local business sector. The consumption of alcohol is integral to the community's local culture and contributes to social vitality.

However, the abuse and misuse of alcohol in the community has resulted in a number of social, health, safety, economic and environmental harms, the costs of which are borne by Council, local service providers and the judiciary system. While a proportion of the community, particularly people aged 30 years and over, is at risk of chronic alcohol harms, younger people are at risk of acute alcohol-related harms during peak tourist season and schoolies.

The municipality's socio-economic and licensed premises context is associated with several risk factors. These include socio-economic vulnerability in the communities of Hastings, Rosebud, Tootgarook and Capel Sound, and the presence and concentration of high-risk venues in Hastings and Mornington.

Council plays several important statutory roles in protecting the community from alcohol-related harms. These include advocating for an increase in harm minimisation measures, collaborating with partners to ensure equitable access to services, building the community's capacity to engage in healthy alcohol consumption behaviours. Council plays an important statutory role in regulating land uses, including land use for the sale and consumption of alcohol, and maintaining a clean and safe public realm in areas surrounding licensed premises.

A further important role is in developing a strategic framework which will guide these statutory roles and reduce the overall cost burden to Council of alcohol-related harms in the community. This strategic framework would consist of an overarching vision, and a set of objectives, strategies and actions guiding the fulfillment of Council's statutory advocacy, collaborative, capacity building, planning and regulatory roles.

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Appendix 2 – Liquor licence details

Categories

Category	Authorisation
General licence	Supply liquor on the licensed premises for consumption on and off the licensed premises, to a resident of the licensed premises or a guest of the resident for consumption on the licensed premises
Restaurant and café licence	This licence allows the supply of liquor for consumption on premises and the sale of packaged liquor with a take-away or home delivery meal. Restaurants, cafes and businesses, where the main activity carried out at all times is to prepare and serve meals (for consumption on the premises), are generally the type of businesses that apply for this licence.
Full club licence	A full club licence authorises a club to supply alcohol to: • club members to drink on the premises or take away • guests of members and authorised gaming visitors to drink on the premises only • people attending a function or club event for drinking on the premises only. An authorised gaming visitor is someone who: • is not a member of the club, and • lives more than 5 kilometres away from the club (if in metropolitan Melbourne) or more than 10 kilometres from the club (if in regional Victoria).
Restricted club liquor licence	A restricted club licence authorises a club to supply alcohol to: • club members to drink on the premises • guests of members to drink on the premises only • people attending a function or club event for drinking on the premises.
Remote sellers licence	A remote sellers packaged licence allows people or businesses to sell alcohol to people not currently on the licenced premise. This includes sales over the phone, via the internet or through an app, and delivered to customers to consume off-premises. The remote sellers licenced premise is where the liquor is supplied from, such as the warehouse where alcohol products are shipped from.
Producer's liquor licence	Breweries, distilleries and wineries that produce their own beer, wine, spirits, brandy, mead or sake are the type of businesses that generally apply for a producer's licence. This licence allows licensees to sell alcohol they make or are financially responsible for making: • to any other licensee at any time and at any place, for example a pub or restaurant

Category	Authorisation
	• to the public at your licensed premises, to drink both on and off premises • from a secondary retail location that you operate • to a person who orders from you using email, phone, online or fax. Licensees can also supply other alcohol they have not produced at their licensed premises for on-premises consumption.
On-premises liquor licence	Bars and nightclubs are generally the type of business that apply for an on-premises licence. An on-premises licence allows the licensee to sell alcohol to drink on their licensed premises without also being required to serve meals. It does not allow the licensee to sell takeaway alcohol.
Packaged liquor licence	A packaged liquor licence allows the licensee to sell alcohol in containers to people who will drink it away from the licensed premises. Bottle shops and supermarkets are generally the type of businesses to apply for a packaged liquor licence. This licence does not allow the licensee to sell alcohol to people to drink on the premises. The licensee can offer free tastings on the licensed premises as part of this type of licence.
General liquor licence	Pubs, hotels and taverns are generally the type of businesses that apply for a general licence. A general licence allows the licensee to supply liquor for consumption both on and off their licensed premises.
BYO liquor permit	Restaurants, clubs and party or commercial bus operators are generally the businesses that apply for a BYO liquor permit. These businesses do not want to supply or sell alcohol on their premises, but instead want to allow their customers to bring their own alcohol to drink. There are two types of BYO permits that can be applied for in Victoria: • BYO permit (restaurants and clubs) • BYO permit (party buses).
Pre-retail liquor licence	Wholesalers, producers, brewers and liquor importers are the businesses that would generally apply for a pre-retail licence. A pre-retail licence authorises the wholesale supply of liquor to other licensees anywhere in Australia. They can also supply liquor to a person for the purpose of exporting the liquor supplied outside of Australia.
Renewable limited licence	A renewable licence authorises a club to supply alcohol: to drink on the premises only (take away alcohol is not permitted)

Category	Authorisation
	from a point of sale during sporting events for drinking outside the licensed premises (for example, from a temporary bar in the stands while watching a match).

Trading hours

Ordinary trading hours

In relation to a general licence, late night (general) licence, on-premises licence, late night (on-premises) licence or restaurant and cafe licence—

- the hours between 7 a.m. and 11 p.m. on each day, other than Sunday, Good Friday or ANZAC Day; and
- the hours between 10 a.m. and 11 p.m. on Sunday; and
- the hours between 12 noon and 11 p.m. on Good Friday and ANZAC Day;

In relation to a club licence—

- any time on any day other than Sunday, Good Friday or ANZAC Day; and
- the hours between 10 a.m. and 11 p.m. on Sunday; and
- the hours between 12 noon and 11 p.m. on Good Friday and ANZAC Day;

In relation to a packaged liquor licence, a late night (packaged liquor) licence or a remote sellers packaged liquor licence the hours between 9 a.m. and 11 p.m. on each day, other than Sunday, Good Friday, ANZAC Day or Christmas Day; and

- the hours between 10 a.m. and 11 p.m. on Sunday; and
- the hours between 12 noon and 11 p.m. on ANZAC Day;

In relation to a producer's licence—

- the hours between 7 a.m. and 11 p.m. on each day, other than Sunday, Good Friday or ANZAC Day; and
- the hours between 10 a.m. and 11 p.m. on Sunday, Good Friday and ANZAC Day;

Late night trading hours

A late night licence may be a late night (general) licence, a late night (on premises) licence or a late night (packaged liquor) licence.

Late night liquor licences authorise the sale and consumption of liquor, as per their category beyond ordinary trading hours until 1am or at any other times determined by the Commission. These hours may extend beyond 1am.

Appendix 3 – Mornington CBD Designated Area and Liquor Local Law restrictions

Victoria Government Gazette *G 47 26 November 2020 2389*

Liquor Control Reform Act 1998

SECTION 147 – ORDER DECLARING A DESIGNATED AREA

The Commission, pursuant to section 147 of the **Liquor Control Reform Act 1998** (the Act), declares the following area to be a designated area for the purposes of Part 8A of the Act for a period of 10 years from the date the Order is published in the Government Gazette:

The area within the Mornington CBD and surrounding areas as shown on the following plan.

ROSS KENNEDY
Chair
Victorian Commission for Gambling and Liquor Regulation

35

SymPlan
Putting the social back into planning

Table 4 – Mornington Peninsula Shire Liquor Local Laws restrictions

Restriction	Area
A Person must not consume Liquor, or have in his or her possession or control any Liquor other than in a sealed container within 3 – 19 inclusive, 21-27 inclusive, 30-36 inclusive 39-43 inclusive 45-52 inclusive	• Selected public open spaces in Arthur's Seat, Balnarring and Balnarring Beach, Hastings, Point Leo, Portsea, Tyabb, Merricks Beach, Baxter, Bittern, Crib Point • Dromana Foreshore and beach • Gunnamatta car park • Hastings foreshore and town centre • Quarry Reserve in Moorooduc • Mornington (Main Street Benton's Square, and Civic Reserve), Back Beach in Portsea • Rosebud town centre and Waterfall Gully Shops • Rye Foreshore and Rye Pier car parks and Rowley Reserve, Safety Beach • Part of Somers foreshore • Somerville Station and surrounds, Sorrento foreshore • Back Beach car park • Sorrento Camping Area car park, Skate Park and Koonya Beach Stony Point car park • Mt Martha foreshore
A Person must not between the hours of 8:00 p.m. and 8:00 a.m. on the following day, within those parts of the Municipal District which are delineated on the plans in Schedules 20, 28, 29, 37, 38 and 44 have in his or her possession or control any Liquor.	• Mornington Foreshore • Mt Martha Beach and Foreshore north and south • Rye Foreshore east and west • Somerville Fruit Grower's Reserve

Appendix 4 – Community and health profile

Table 5 – Age structure, 2021

Service age group (years)	Mornington Peninsula Shire		Greater Melbourne %
	Number	%	
Babies and pre-schoolers (0 to 4)	7,922	4.7	5.9
Primary schoolers (5 to 11)	13,325	7.9	8.7
Secondary schoolers (12 to 17)	12,181	7.2	6.9
Tertiary education and independence (18 to 24)	11,341	6.7	8.9
Young workforce (25 to 34)	14,555	8.6	16.0
Parents and homebuilders (35 to 49)	28,698	17.0	21.5
Older workers and pre-retirees (50 to 59)	23,086	13.7	11.9
Empty nesters and retirees (60 to 69)	23,832	14.1	9.5
Seniors (70 to 84)	27,981	16.6	8.6
Elderly aged (85 and over)	6,029	3.6	2.0
Total	**168,950**	**100.0**	**100.0**

Source: ABS Census of Population and Housing 2021, compiled by .id consulting

Table 6 – Community and health profile

Mornington Peninsula Shire	Forecast year				Change between 2021 and 2036	
Area	2021	2026	2031	2036	Total change	Avg. annual % change
Mornington Peninsula Shire	170,390	174,295	177,461	181,137	+10,748	0.3
Balnarring - Balnarring Beach - Merricks - Merricks Beach - Somers	5,120	5,093	5,083	5,117	-2	0.0
Baxter - Pearcedale	2,305	2,306	2,339	2,374	+69	0.1
Bittern - Crib Point	7,672	7,890	8,193	8,569	+897	0.6
Dromana - Safety Beach	13,053	13,690	14,132	14,634	+1,581	0.6
Flinders - Shoreham - Point Leo	2,020	1,984	1,960	1,967	-52	-0.1
Hastings	10,491	10,771	11,011	11,280	+789	0.4
HMAS Cerberus	1,137	1,137	1,106	1,092	-45	-0.2
Moorooduc - Tuerong	1,364	1,316	1,327	1,334	-30	-0.1
Mornington	25,909	26,717	27,379	28,080	+2,171	0.4
Mount Eliza	18,923	19,640	20,245	20,893	+1,970	0.5
Mount Martha	20,020	20,127	20,166	20,299	+279	0.1
Portsea - Sorrento - Blairgowrie	5,640	5,520	5,474	5,488	-152	-0.1
Red Hill - Red Hill South - Merricks North - Main Ridge - Arthurs Seat	2,989	2,943	2,938	2,954	-35	-0.1
Rosebud - Capel Sound - McCrae - Boneo - Fingal - Cape Schanck	24,671	25,759	26,425	27,022	+2,350	0.5
Rye - Tootgarook - St Andrews Beach	13,701	13,773	13,868	14,059	+358	0.1
Somerville	11,861	12,158	12,378	12,579	+718	0.3
Tyabb	3,515	3,472	3,437	3,396	-119	-0.2

Source: Population and household forecasts, 2021 to 2036, prepared by .id (informed decisions), February 2023.

Table 7 - Health and wellbeing indicators

Indicator	Mornington Peninsula Shire	Victoria
OBESITY - BMI	%	%
Normal weight (18.5 ≥ BMI < 25)	33.9	36.4
Overweight, but not obese (25 ≥ BMI < 30)	29.3	30.1
Obese (BMI ≥ 30)	20.7	20.9
OBESITY - Overweight category		
Overweight (BMI ≥ 25)	50.0	51.0
Not-overweight (BMI <25)	36.2	38.5
OBESITY - Extended BMI category		
Obese Class I (30 ≥ BMI < 35)	13.8	13.6
Obese Class II (35 ≥ BMI < 40)	5.0	4.7
SMOKING - Smoking status		
Daily smoker	12.9	12.0
Occasional smoker	4.3	4.4
Current smoker (Daily + Occasional)	17.2	16.4
Ex-smoker	22.7	22.8
Non-smoker	59.3	59.8
MENTAL HEALTH and WELLBEING - Level of psychological distress		
Low (K10 < 16)	47.4	44.9
Moderate (K10 16–21)	25.1	26.4
High (K10 22–29)	13.0	15.2
Very high (K10 30+)	13.3	8.3
High / very high (K10 22+)	26.2	23.5
MENTAL HEALTH and WELLBEING - Self-reported health status		
Excellent / very good	40.6	40.5
Good	35.8	37.7
Fair/poor	23.5	21.4

Indicator	Mornington Peninsula Shire	Victoria
MENTAL HEALTH and WELLBEING - Life satisfaction		
Low or medium (0–6)	**23.6**	**22.3**
High (7–8)	**51.5**	**49.6**
Very high (9–10)	**24.9**	**26.9**
SOCIAL CAPITAL - Feeling of trust - Most people could be trusted		
Yes, definitely	**32.0**	**36.1**
Sometimes	**55.6**	**47.7**
Never, or not often	**11.2**	**14.2**
SOCIAL CAPITAL - Tolerance of diversity - Multiculturalism makes life in your area better		
Yes, definitely	**61.5**	**63.5**
Sometimes	**23.5**	**23.5**
Never, or not often	**6.6**	**6.7**
SOCIAL CAPITAL - Feelings of being valued by society		
Yes, definitely	**48.9**	**51.6**
Sometimes	**33.3**	**34.2**
Never, or not often	**16.6**	**11.0**
SOCIAL CAPITAL - Home ownership status		
Owned with mortgage	**46.8**	**35.2**
SOCIAL CAPITAL - Do you have close friends or family whom you talk to regularly?		
Yes	**95.9**	**95.2**
No	**4.1**	**4.7**
SOCIAL CAPITAL - How often do you talk to your friends?		
Every day	**42.5**	**34.0**
A few times a week	**41.8**	**45.5**
A few times a month	**13.7**	**15.4**
SOCIAL CAPITAL - How often do you talk to your family?		
Every day	**28.3**	**28.4**

Indicator	Mornington Peninsula Shire	Victoria
A few times a week	46.1	47.3
A few times a month	19.2	18.3
Less than monthly	3.4	3.0
POVERTY - Ran out of money to buy food in last 12 months		
Ran out of money to buy food in last 12 months	6.9	5.9

Source: Victorian Population Health Survey 2020

Favourable relative to Victoria

Similar to Victoria

Unfavourable relative to Victoria

Table 8 - Indicators of vulnerability to alcohol-related harm, Mornington Peninsula Shire and local areas

Areas	18-24 years	Low income households	Group households	Aboriginal and Torres Strait Islanders	People not fluent in English
Balnarring - Balnarring Beach - Merricks - Merricks Beach - Somers	5.2	17.9	1	0.5	0.1
Baxter - Pearcedale	8.2	23.0	1.4	1.8	0.4
Beleura Hill	5.4	17.3	0	0.7	0
Bittern - Crib Point	7.2	23.9	1.6	1.9	0.3
Capel Sound	4.7	39.5	2.3	1.6	0.7
Dromana - Safety Beach	6.3	26.6	2.1	0.8	1
Flinders - Shoreham - Point Leo	3.8	16.0	0.8	0.3	0.2
Hastings	6.7	31.9	2.6	2.4	0.6
HMAS Cerberus	54.8	0.0	0	5.3	0.7
Moorooduc - Tuerong	8.0	14.2	1.7	1.2	0.3
Mornington	6.2	26.4	1.8	0.8	0.6
Mount Eliza	7.1	15.1	1	0.5	0.5
Mount Martha	6.9	18.3	0.9	0.6	0.4
Portsea - Sorrento - Blairgowrie	4.0	21.7	0.9	0.3	0.2
Red Hill - Red Hill South - Merricks North - Main Ridge - Arthurs Seat	5.9	13.6	1.2	0.3	0.2
Rosebud	6.0	31.2	2.5	1.4	0.7
Rosebud - Capel Sound - McCrae - Boneo - Fingal - Cape Schanck	5.7	30.9	2.3	1.3	0.6
Rye - Tootgarook - St Andrews Beach	5.3	27.2	2.4	1	0.8
Somerville	7.7	20.8	1.6	1	0.3
Tootgarook	5.8	28.9	2.3	1.6	0.8
Tyabb	8.8	18.3	2.2	0.4	0.2
Mornington Peninsula Shire	6.7	24.0	1.7	1	0.5
Greater Melbourne	8.9	19.0	4.1	0.7	5.4

At an elevated risk relative to Mornington Peninsula Shire

At an elevated risk relative to Greater Melbourne

Source: ABS Census of Population and Housing 2021, compiled by .id consulting

Table 9 - Index of Socio-economic Disadvantage, 2021

Area	IRSD index score
HMAS Cerberus	1166.4
Flinders - Shoreham - Point Leo	1111.1
Beleura Hill	1105.1
Mount Eliza	1103.6
Red Hill - Red Hill South - Merricks North - Main Ridge - Arthurs Seat	1093.1
Balnarring - Balnarring Beach - Merricks - Merricks Beach - Somers	1091.9
Portsea - Sorrento - Blairgowrie	1090.5
Moorooduc - Tuerong	1083.3
Mount Martha	1078.7
Somerville	1039.0
Mornington Peninsula Shire	**1037.5**
Tyabb	1033.1
Mornington	1029.2
Dromana - Safety Beach	1022.3
Bittern - Crib Point	1018.0
Greater Melbourne	**1018.0**
Rye - Tootgarook - St Andrews Beach	1017.4
Victoria	**1010.0**
Baxter - Pearcedale	1003.5
Interface Councils	**1000.7**
Rosebud - Capel Sound - McCrae - Boneo - Fingal - Cape Schanck	987.8
Rosebud	982.4
Tootgarook	978.2
Capel Sound	941.8
Hastings	940.0

Source: ABS Census of Population and Housing 2021, compiled by .id consulting

Table 10 - Alcohol hospital admissions and ambulance attendances, 2017-18 to 2020-21

Financial year	Alcohol hospital admissions	Mornington Peninsula	Metro	Regional	Victoria
	Number	1177	26221	8,154	34,375
2017-18	Rate of per 100,000 population	777.1	549.8	525.6	543.8
	Number	1321	28654	8,930	37,584
2020-21	Rate of per 100,000 population	775.3	585.9	539.2	574
	Alcohol ambulance attendances with or without other drugs	**Mornington Peninsula**	**Metro**	**Regional**	Victoria
	Number	798	19,048	6,341	25,437
2017-18	Rate of per 100,000 population	487	399.4	408.8	401.7
	Number	771	17,591	7,735	25,391
2020-21	Rate of per 100,000 population	425.1	359.7	467.1	387.8
	Alcohol only ambulance attendances	**Mornington Peninsula**	**Metro**	**Regional**	Victoria
	Number	650	15,743	5,226	21,006
2017-18	Rate of per 100,000 population	396.7	330.1	336.9	331.8
	Number	613	14,159	6,242	20,458
2020-21	Rate of per 100,000 population	359.8	289.5	376.9	367.8

Source: AOD Stats

Table 11 - Per cent change in alcohol hospital admissions and ambulance attendances, 2017-18 to 2020-21

Alcohol hospital admissions				
	Metro	**Regional**	**Victoria**	**Metro**
Number	12.2	9.3	9.5	9.3
Rate of per 100,000 population	-0.2	6.6	2.6	5.6
Alcohol ambulance attendances with or without other drugs				
	Mornington Peninsula	**Metro**	**Regional**	Victoria
Number	-3.4	-7.6	22.0	-0.2
Rate of per 100,000 population	-12.7	-9.9	14.3	-3.5
Alcohol only alcohol attendances				
	Mornington Peninsula	**Metro**	**Regional**	Victoria
Number	-5.7	-10.1	19.4	-2.6
Rate of per 100,000 population	-9.3	-12.3	11.9	10.8

Source: AOD Stats

Appendix 5– Mornington Peninsula Shire licenced premises

Licence type and distribution

NOTE: The list of suburbs is drawn from the Liquor Control Victoria database and therefore may not be consistent with the areas used by the ABS Census of Population and Housing 2021 and .id consulting

Table 12 – Distribution of liquor licences

Area	BYO Permit	Full Club	Restricted club	General	Late night general	Late night on premises	Limited	On premises	Packaged	Pre-retail	Producer's	Remote seller	Restaurant and café	Total	Selling alcohol for consumption off the	Late night
Arthur's seat							2	3			3			8	0	0
Balnarring	3		2				4	1	2	1	7	2	8	30	2	0
Baxter					1				2		1		2	6	3	1
Bittern	1						3	1	1		3	1	2	12	1	0
Blairegowrie	1			1			3	2	1			2	3	13	2	0
Boneo				1			3				1	1	1	7	1	0
Cape Shanck				1			5							6	1	0
Capel Sound								1			1	2		4	0	0
Crib Point		1	2					1	1			1		6	1	0
Dromana	6	1		5	1		12	3	5		10	2	16	61	11	1
Fingal				1			5	3			2	2	1	14	1	0
Flinders	2	1		3			5		1		1	1	4	18	4	0
Hastings, Hastings West	2	2	1	2	2		4	2	7		3		13	38	11	2
Main Ridge			2				2			3	5	1	2	15	0	0
McCrae			1				1		1				4	7	1	0

Area	BYO Permit	Full Club	Restricted club	General	Late night general	Late night on premises	Limited	On premises	Packaged	Pre-retail	Producer's	Remote seller	Restaurant and café	Total	Selling alcohol for consumption off the	Late night
Merricks, Merricks Beach, Merricks North				1			4	1			14	2	2	24	1	
Mooroduc			1				7		1		10	1	1	21	1	0
Mornington, Mornington East	7	4	3	7	2	3	21	14	11			7	55	134	20	5
Mount Eliza	2	2	3	1			7	2	6		2	5	16	46	7	0
Mount Martha	2	1		1			13	4	1			10	7	39	2	0
Pearcedale Somerville	2		2		1		5	3	5		4	4	5	31	6	1
Point Leo	1		1									1	3	6	0	0
Portsea				2			5					1	3	11	2	0
Red Hill, Red Hill South	2		2	4			10	5		1	24	6	4	58	4	0
Rosebud, Rosebud West		3	3	3	1		14	7	9		2	1	18	61	13	1
Rye	1	1	1	2			9	3	4		1	1	16	39	6	0
Safety Beach				2			4	1				3	1	11	2	0
Shoreham							2	1			7	2	1	13	0	0
Somers							4					1	1	6	0	0
Sorrento	1	3	2	4	1		6	4	4			1	11	37	9	1
St Andrews Beach	1						1							2	0	0
Tootgaruk	1						1		1				2	5	1	0
Tuerong											4	2		6	0	0
Tyabb, Tyabb North		1	2				2	2	2	1	1	3	2	16	2	0
Total	**35**	**20**	**28**	**41**	**9**	**3**	**164**	**64**	**65**	**6**	**106**	**66**	**204**	**811**	**115**	**12**

Trading hours and patron capacity

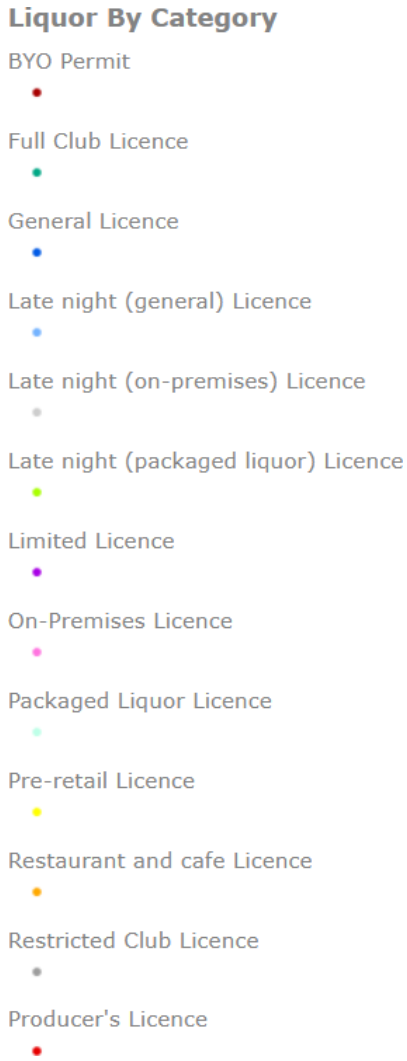
Table 13 – High risk venues

Trading As	Category	Trading Hours	Maximum Capacity	Address	Suburb	Gaming
Baxter Tavern Hotel Motel	Late night (general) Licence	Trading to 3am	700	117 Baxter Tooradin Road	Baxter	Y
Dromana Hotel	Late night (general) Licence	Trading to 3am	540	151 Point Nepean Road	Dromana	Y
Kings Creek Hotel	Late night (general) Licence	Trading to 3am	1000	1989 Frankston-Flinders Road	Hastings	Y
Westernport Hotel	Late night (general) Licence	Trading to 3am	486	High Street	Hastings	Y
Casa De Playa	Restaurant and cafe Licence	Trading to 3am	270	39 Main Street	Mornington	N
Mornington On Tanti Hotel	Late night (general) Licence	Trading to 3am	600	917 Nepean Highway	Mornington	Y
Merchant Lane	Late night (on-premises) Licence	Trading to 3am	388	58 Main Street	Mornington	N
Steeples	Late night (on-premises) Licence	Trading to 3am	988	Mornington Racecourse 50 Racecourse Road	Mornington	Y
The Bay Hotel Mornington	Late night (on-premises) Licence	Trading to 5am	375	60-62 Main Street	Mornington	N
Grand Hotel	Late night (general) Licence	Trading to 7am	1100	126 Main Street	Mornington	Y
Rosebud Hotel	Late night (general) Licence	Trading to 3am	1482	1099 Point Nepean Road	Rosebud	Y
Somerville Hotel	Late night (general) Licence	Trading to 7am	800	84 Station St	Somerville	Y
The Continental Sorrento	Late night (general) Licence	Trading to 3am	920	Ocean Beach Road	Sorrento	N

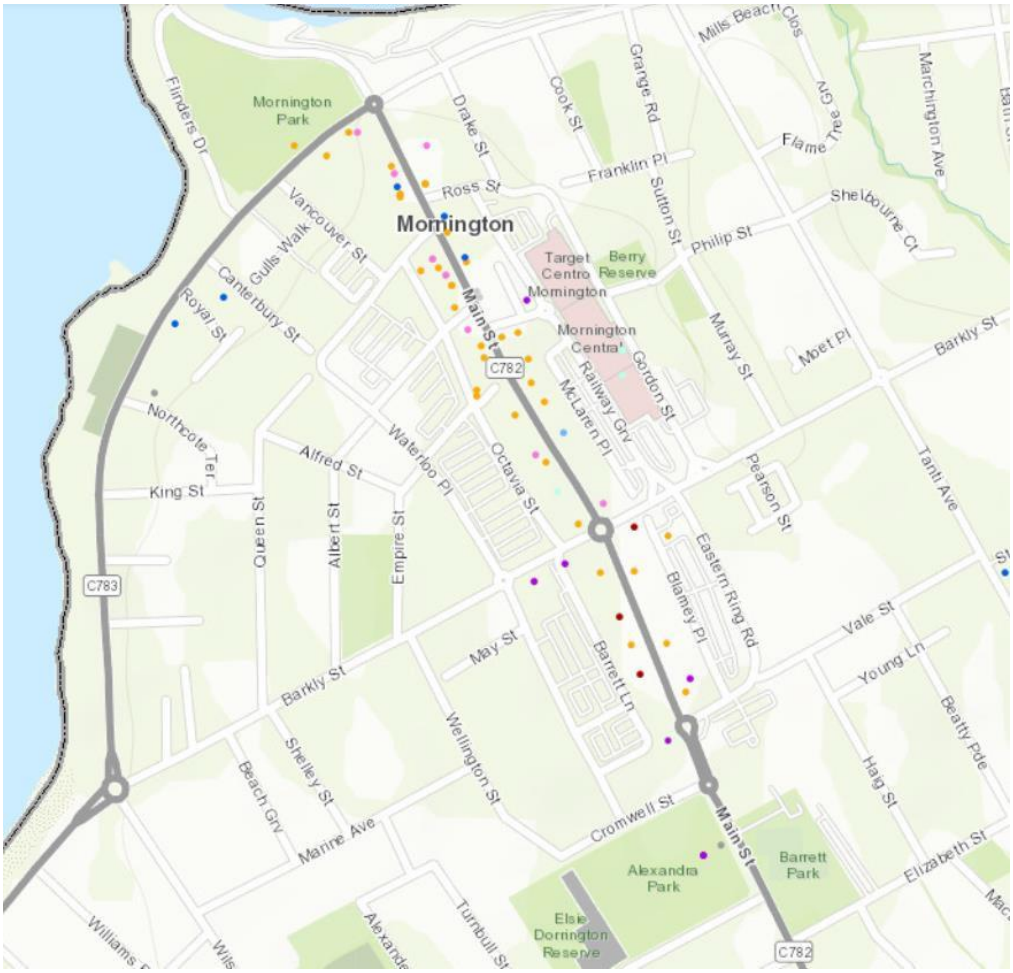
High risk venue (refer to Section 4.4)

Source: Liquor Control Victoria

Liquor licences in Mornington Peninsula Shire's main centres

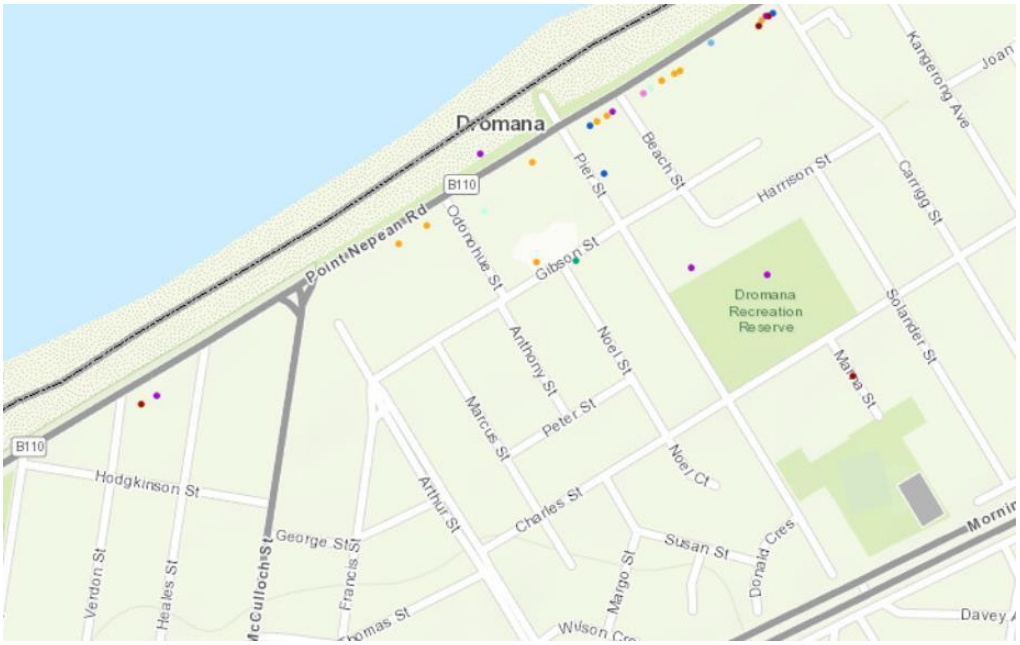


Mornington Town Centre

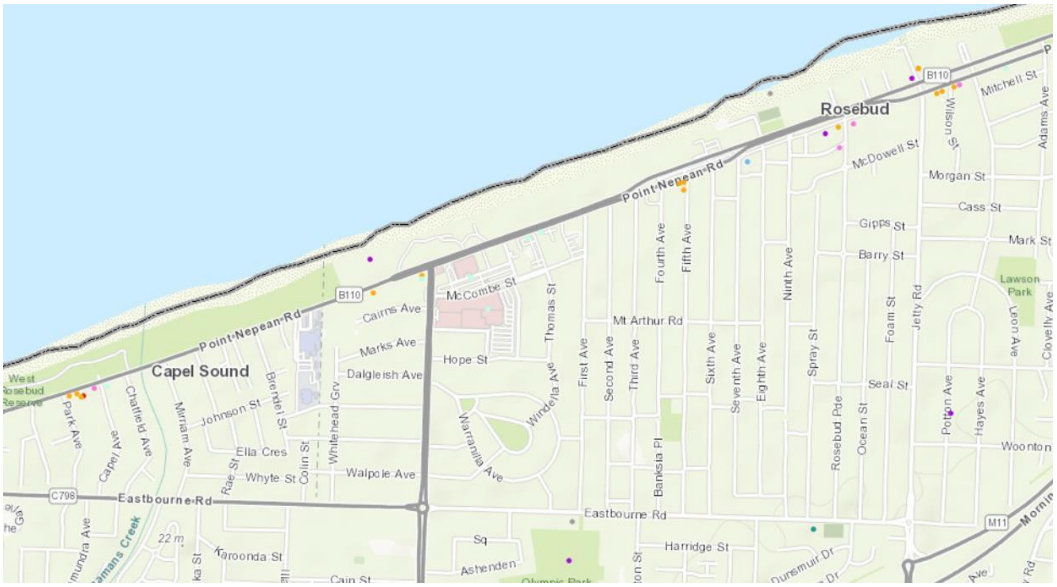


Mt Martha

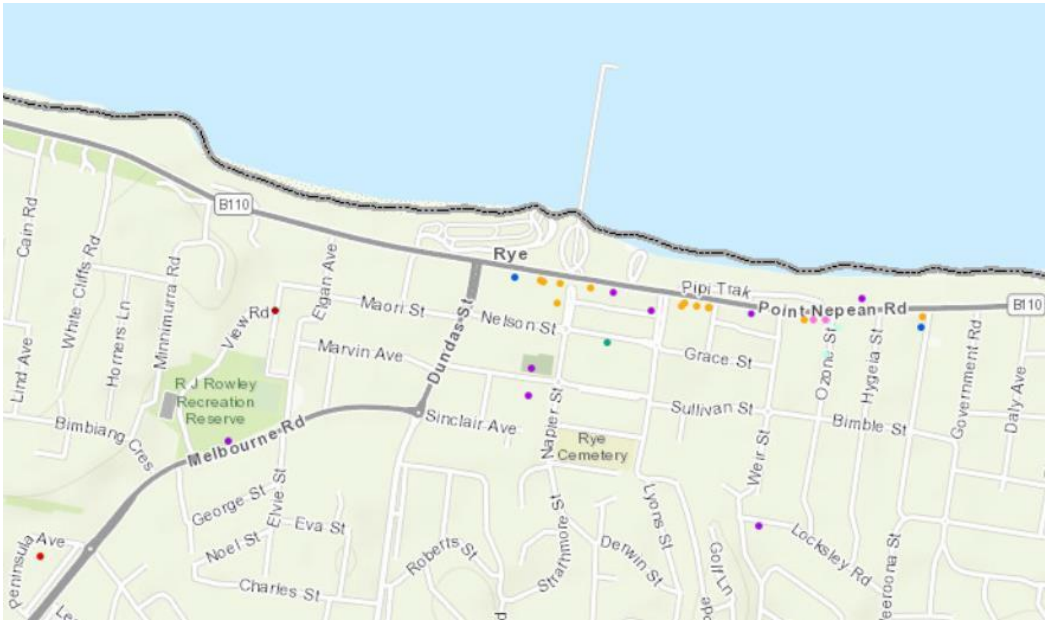
Dromana



Rosebud and Capel Sound



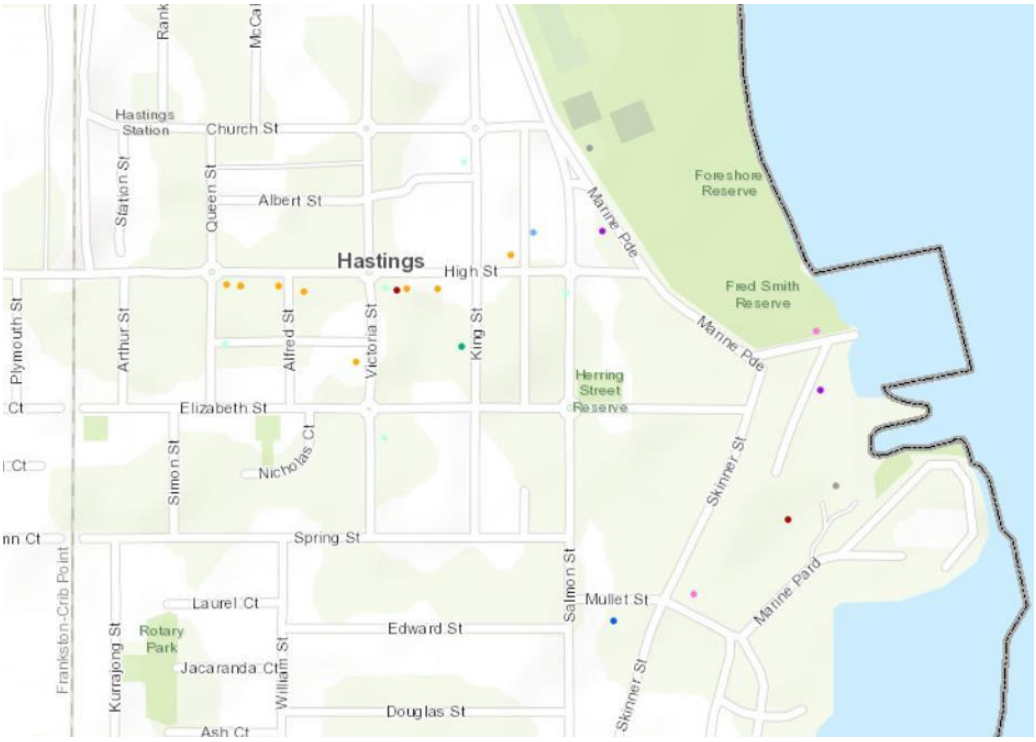
Rye



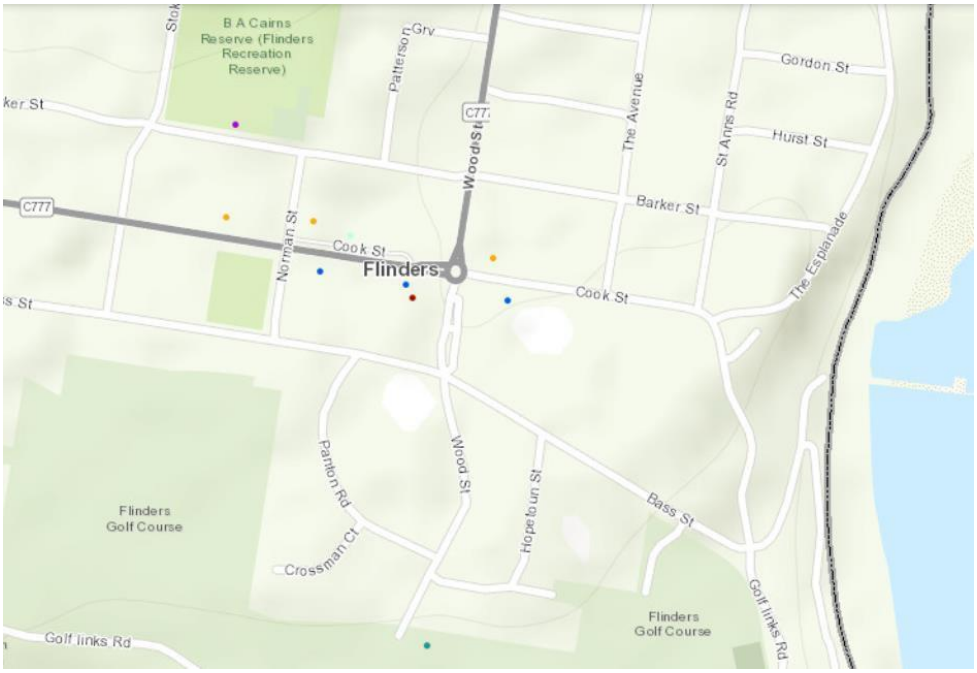
SymPlan
Putting the social back into planning

Sorrento

Hastings



Flinders


B A Cairns Reserve (Flinders Recreation Reserve)
Patterson Grv
Gordon St
Hurst St
Barker St
C777
Norman St
Cook St
Flinders
Woods St
The Avenue
St Anns Rd
The Esplanade
Parton Rd
Crossman Ct
Hope town St
Bass St
Flinders Golf Course
Golf links Rd

Appendix 6 – Stakeholder engagement workshop

Introduction

On 14 September 2023 a workshop was held with the following stakeholder groups to gather qualitative and anecdotal information on the key determinants and impacts of alcohol-related harms in the Mornington Peninsula Shire context.

External stakeholder groups included:

The external stakeholders represented were:

- Victoria Police
- TaskForce
- Department of Families, Fairness and Housing
- Family Life
- Peninsula Health
- Mornington Community Support Centre.

The following internal departments from Mornington Peninsula Shire Council attended:

- Youth
- Maternal & Child Health
- Festivals and Events
- Economic Development
- Libraries
- HR Safety & Risk
- Aged and Disability Community Care
- Children's Crossings
- Planning Compliance
- Community Wellbeing and Community Development.

A total of 25[94] people attended the two hour workshop which was held between 10am and 12pm at Council's offices in Mornington.

The feedback gathered during this workshop has been integrated into the *Mornington Peninsula Shire Community Alcohol Profile.*

Electronic copies of the written feedback may be found here.

[94] Including all Council officers and the consultant

Drivers of alcohol consumption and impacts

The following drivers in the municipality are relevant to addressing alcohol-related harm within the Mornington Peninsula Shire community.

- Mornington Peninsula is a challenging place to address AOD issues because the culture normalises alcohol consumption and is an important part of economic prosperity here. We are known for our wineries and also have limited access to public transport.
- Australian culture normalises binge drinking culture "I don't drink during the week".
- Decriminalization of public drunkenness will have a significant impact. Mornington Peninsula Shire currently has the second highest arrest rate for public drunkenness in the State.
- Technology has increased the availability of alcohol.
- Look at the reasons people consume alcohol – coping, self-medicating, to feel connected, social, addiction, escaping.
- The issues in Mornington Peninsula are temporal – over the weekends, during tourist seasons and schoolies the issues are more acute, during other times of the year the issues are more chronic. During the year young people are not a concerning number of police calls, but during schoolies it is a challenge as some venues exceed their maximum capacities.
- Children place pressure on parents to allow them to drink, saying other parents allow their children to drink.

Detailed feedback

Participants provided the following input into determinants and alcohol-related harms within the Mornington Peninsula Shire community.

Determinants of alcohol-related harms

Suburbs/Locations/Settings	Socio-economic profile
• People with greater disadvantage more likely to drink at home. • Main Street **(Mornington)** 1am closure has helped in managing problems. There are more alcohol related incidents in Mornington than Frankston. Mornington has a high concentration of social housing. There is a spike of fake ID's in Mornington. Issues occur at the Melbourne Racing Club in Mornington. • **Hastings:** consumption of alcohol in the home because it is easily accessible due to multiple alcohol shops. People also consume alcohol in public places such as the Foreshore Village Green, Briars and MRC. • **Rosebud** has a high concentration of cafes and restaurants with liquor licences. There is also a high concentration of social	• Young people – they have a lack of willingness to discuss the harms, reasons for harms: unlimited access to money to purchase alcohol, they are at a life stage where taking risks is the norm, peer pressure, boredom, family situation. Young people more likely to frequent pubs and restaurants. Issues among young people are more seasonal. • Older people are experiencing social isolation and loneliness and can easily access alcohol. Older people frequent cafes and restaurants, and purchase packaged liquor. Issues among older people are more chronic and occur throughout the year. • People experiencing socio-economic disadvantage - Higher prevalence of family violence in communities experiencing socio-economic disadvantage, particularly those with a high concentration of licensed

housing in Rosebud. People consume alcohol on the beach and in backyards.
• It is relatively easy to get an Uber home form **Mornington.** But more challenging on the southern end of the Peninsula.
• Other areas include **Capel Sound, Rye, McCrae, Dromana, Somerville.**
• Short-stay accommodation – where there are large groups and easy access to packaged liquor.
• Fast food outlets – open late, drunk people go there to fight.
• Specific venues are the Conti/Sorrento Hotel, Rosebud and Rye Hotel.
• Commercial areas can be a protective factor as there are fewer residential properties in close proximity.
• Some clubs don't comply with liquor licence conditions.
• Other settings are beaches (homeless people).
• Concentration of premises:
  ○ Mornington has a high concentration which means high risk
  ○ Second is Rosebud but premises are more spread.
  ○ Hastings has more incidences in the home while Mornington has more incidences in public
	premises. Issues are experienced in public housing and among the unemployed.
	• People presenting in financial crisis often have AOD and gambling addiction issues.
	• Young people in more affluent communities in Mornington, Mt Eliza, Mt Martha have access to cash and fake ID's – they are also less likely to report issues.
	• More people report chronic than acute alcohol issues.
	• Previously the ratio of male to females experiencing harm was 5:1, it's now 1:1.

Licensed premises context	
• Alcohol is widely accessible. • Cafes can generate higher profits if they are licensed. • Issues arise on properties that are in close proximity to licensed premises. In Mornington there is greater separation between commercial and residential properties whereas in Rosebud it's easier for people to walk home. • During COVID-19 State of Emergency Permits were all exempt during this time which made it difficult to regulate and this has continued since. • Larger venues (Sorrento and Portsea) have very experienced staff who manage RSA well.	

Smaller venues often generate more challenges. • Premises with pokies increase the risk of both alcohol and gambling-related harms. • Alcohol delivery is not well-regulated and increases accessibility for people that are isolated.	

Impacts of alcohol-related harms

Social	Health and safety
• Social isolation – drinking to cope • Disconnection with support services • Family breakdown • Social exclusion - reputation, perception, stigma, discrimination • Generational trauma and upbringing • Neglect – children impacted by parents' drinking • Perceived safety and security • Family cycles of trauma, violence, cycle of abuse)	• Violence – assaults, family violence • Accidents – acquired brain injury, broken bones • Addiction • Hospital admissions • Compromised mental health • Compromised physical health – cause of over 2000 diseases and common cancers, FASD (foetal alcohol spectrum disorder), physical changes to brain development can lead to addictive personality, liver and kidney failure • Risky behaviours lead to motor vehicle accidents, injury, falls, binge drinking • Impaired decision-making • Comorbidities • PTSD • Pre-curser to drugs, smoking gambling harm • Malnutrition • There is a correlation between gambling harm and alcohol harm.
Economic	**Physical/environmental**
Harms • Sick days • Job losses • Licence loss • Homelessness • Reduced disposable income, particularly for financially vulnerable households • Increased demand for financial assistance Benefits	• Property damage • Vandalism • Anti-social behaviour (urination, vomit etc) • Graffiti • Waste/litter, smashed bottles • Amenity (noise)

• Increased tourism • Opportunities for people to get together – parties, events, celebrations, friends, peers • Supports events and festivals • Supports local economy • Supports wine producers	
Costs	
• Emergency services (police call outs, ambulance attendances) • Services (support, counselling, hospital admissions, rehabilitation) • Liquor Control Victoria - enforcement • Mornington Peninsula Shire – management, waste collection, enforcement, graffiti removal, CCTV • TAC • Prison/court • Australia spent $70 billion on addressing alcohol-related harm in 2022 – literature cites spending $22.4 billion on alcohol addiction in 2021 (28 per cent of $80 billion for all addictions)[95]	

General comments

The following general comments were recorded.

- High alcohol taxes doesn't deter people and it preys on vulnerable consumers.
- Costs of alcohol increase twice a year.
- There has been a reduction in harms due to high costs of living.
- Centrelink payments are too low.
- Consider CCTV at hotspots to address alcohol-related issues.
- People with more resources have greater opportunities to source help and support.
- Bottle shops are increasing prices and making more money.
- Cleanskin who has never previously had involvement with the law.
- The issues are very complex.
- There is not enough recognition of replacement therapies.
- Political priorities?
- There are insufficient detoxification services in Mornington Peninsula – the closest facilities are in Dandenong and St Kilda. There are long waiting lists for alcohol support.

[95] Drug, alcohol and smoking addiction costing Australia billions, new report shows - ABC News

Towards developing the alcohol policy

Participants recommended the following strategies to address alcohol-related harms in the community.

- Education and awareness: early education and harm minimisation, education around individual bodily impacts, raise awareness of supports available.
- Remove advertising of alcohol.
- Grouping premises together in suitable locations can help prevent issues.
- Increase public transport during schoolies.

Agenda

Stakeholder workshop

Mornington Peninsula Shire Community Alcohol Profile

Thursday 14 September 2023, 10am – 12pm

Purposes

To understand:

1. The key determinants of alcohol-related harm in the Mornington Peninsula community.
2. The impacts of harm from alcohol on the Mornington Peninsula community.

Welcome and introductions Background to research and process Purpose of workshop Introductions	***Mornington Peninsula Shire***
Preliminary findings Council's statutory roles Licensed premises profile Community and health profile	***Bonnie Rosen***
Discussions 1. Determinants of harm from alcohol in the Mornington Peninsula community: • Suburbs/locations • Population profile • Licensed premises context 2. Impacts of harm from alcohol on the Mornington Peninsula community: • Social • Health • Economic • Physical/environmental • Costs (service provision, maintenance, enforcement, judicial) **3.** General	***Participants*** ***Participants*** ***Participants***
Next steps	***Mornington Peninsula Shire***

Mornington Peninsula Shire – Community Engagement Summary

Background

During March and April, the Mornington Peninsula Shire community was invited to share their experiences of how they'd been affected by people's use of alcohol through an online survey. This survey on the Shire website was promoted on social media as well as being shared with Shire networks across Community Services, Agri-businesses and Licensed Venue Operators. The survey used was developed by VicHealth for local government to yield specific local information and engage the community.

In-person focus groups were held with both of the Shire's Youth and Disability Advisory Committees, with animated discussions and very detailed insights.

A pop-up consultation at the Mornington Community Support Centre aimed at hearing the voices of more marginalised community members and people living on a low income. Paper copies and a link to the online survey were shared with both clients and volunteers.

Statistics

Method	Participant Numbers
Online survey	48
Paper copy survey	17
Advisory Committee focus groups in-person	16
Pop-up consultation	20

The age of participants ranged from 14 to 75 years + and there was representation from 13 of the local townships, with a majority from Rosebud.

Themes

Themes emerging from the survey included concern about the high number of packaged liquor outlets, alcohol consumption on the beach and public spaces, the impact of alcohol on mental health, the need for access to support services and for more community education about alcohol harm.

Quotes

"When looking for a place to meet, hotels are often the only places that have all the accessible facilities we need eg: toilets, parking etc" DAC

"People having drinks before going out to calm themselves" YAC

"Too many alcohol shops in Rosebud. There are so many. My own children who are 10 and 13 frequently comment on the number of places that sell alcohol around Rosebud and the Peninsula" Survey respondent

"Point out to adults (in community sports clubs) that the culture of drinking is in direct opposition to being healthy and active, and is a turn-off to parents who might otherwise consider getting their children involved in community sport" Survey respondent

"Alcohol is so normalised that it is difficult to socialise without it being involved" Survey respondent

4.4 Future Workplace - Recommended Tier 1 Locations

Prepared By	Daniel Garrood, Project Coordinator - Future Workplace
Authorised By	Director - Corporate Strategy & Business Improvement
Document ID	A13238647
Briefing Note Number	BN1933 – 30 July 2024
Attachment(s)	1. FW Business Case: Site Options Findings 2. FW Business Case: Site Options Evaluation Report 3. FW Business Case: Architectural Capacity and Test Fit Analysis 4. FW Economic Impact Assessment 5. FW Traffic Engineering Assessment 6. Site Analysis: Community Engagement Summary Report

EXECUTIVE SUMMARY Mornington Peninsula Shire (Shire) officers have completed work on stage 1 of the Business Case for the future workplace project. The Business Case process is a two-stage approach with two Council decision points. The first decision point is endorsement of a site study which included each of the shortlisted sites being evaluated against a range of criteria and a ranking score established.

Consultation has also been undertaken to gain community feedback on the shortlisted locations for the project which has included a social media campaign and a Shape Page questionnaire.

The seven shortlisted Council endorsed site options have been ranked following a rated assessment using multiple inputs into an evaluation criteria matrix based on the four guiding principles of the project.

The outcome of the study is the following:

- The two highest-ranking site options have been identified as suitable preferred locations for the Shire's Tier 1 office with many common positive attributes:
    - Mornington Shire Office Site (2-8 Vancouver St, 2 Queen St, 19-21 Main Street) and 5 Queen Street Car Park (Precinct Option)
    - 35 Wannaeue Place, Rosebud.
- Four of the six site options have been identified as not preferred for the location of the Shire's Tier 1 Office:
    - Waterloo Place, Mornington, VIC 3931 (at grade public carpark)
    - 90 Besgrove Street, Rosebud, VIC 3939 (existing Rosebud Shire Offices)
    - 21 Marine Parade, Hastings, VIC 3915 (existing Hastings Shire Offices)
    - 350 Dunns Road Mornington Vic 3931 (Civic Reserve).

It is recommended that Shire officers progress the Future Workplace project by undertaking a business case on the two sites identified as suitable preferred options for the Shire's Tier 1 office.

This will allow each site to be analysed further, including detailed traffic and car parking impacts, further exploration of private partnership potential, confirmation of tiered model requirements at Tier 2 and 3 sites, and opportunity cost/divestment analysis. This will provide a clear picture of which site provides the best outcome for the community and the most financially viable option for Council.

RECOMMENDATION

That Council:

1. **Endorses the two highest-ranking site options as preferable for the Shire's Tier 1 office:**

   A. **Mornington Shire Office Site (2-8 Vancouver Street, 2 Queen Street, 19-21 Main Street) and 5 Queen Street Car Park (Precinct Option), Mornington.**

   B. **35 Wannaeue Place, Rosebud.**

2. **Endorses the remaining four options identified as not preferred for the location of Council's Tier 1 Office:**

   A. **Waterloo Place, Mornington, VIC 3931 (at grade public carpark)**

   B. **90 Besgrove Street, Rosebud, VIC 3939 (existing Rosebud Shire Offices)**

   C. **21 Marine Parade, Hastings, VIC 3915 (existing Hastings Shire Offices)**

   D. **350 Dunns Road, Mornington, Vic 3931 (Civic Reserve).**

3. **Approves the commencement of a business case on the two sites identified as suitable preferred options for the Shire's Tier 1 office.**

COUNCIL & WELLBEING PLAN

This aligns with the Council and Wellbeing Plan, in particular:

Theme 1: A healthy natural environment and well-planned townships.

- Strategic Objective 1.4: An accessible built environment that supports diverse, current and future community needs.

GOVERNANCE PRINCIPLES

Section 9 of the *Local Government Act 2020* states that a Council must in the performance of its role give effect to the overarching governance principles. This report aligns with the following principle:

E. Innovation and continuous improvement is to be pursued.

RELEVANT COUNCIL DECISIONS AND POLICIES

At the Council Meeting held on 21 February 2023, Council endorsed the recommended future workplace model of one consolidated office with satellite locations and tiered offices.

At the Council Meeting held on 28 November 2023, Council endorsed further feasibility on Tier 3 facilities including a pilot program, functional requirements for the Tier 1 Office (20,000 square metres to 25,000 square metres), the project proceeding to an expression of interest (EoI) process, the commencement of a feasibility study on seven shortlisted locations for the

Tier 1 site and the commencement of a business case following a Council decision on a preferred location.

DISCUSSION

Purpose

The purpose of this report is to present the findings and recommendations of the site study stage of the Future Workplace business case, including a ranking of previously shortlisted locations for the Tier 1 office site for endorsement before moving on to the next stage of the project, a business case on the recommended sites.

Background

A focus on improving access to services and customer experience, ageing and non-compliant office infrastructure, and increasing costs to maintain multiple workplaces has necessitated investigations into the Mornington Peninsula Shire Council's (the Shire) future workplace.

At the Council Meeting on 21 February 2023, Council endorsed a high-level model for the future workplace of a consolidated office with satellite facilities as required and tiered offices.

At the Council meeting on 21 November 2023, Council endorsed the Operating Model and Location Analysis for the future workplace. This included an identified work style, functional requirements for the tiered model, and the following shortlisted locations that met the functional requirements for the Tier 1 site:

- 35 Wannaeue Place, Rosebud, VIC 3939
- 5 Queen Street, Mornington, VIC 3931 (at grade public carpark)
- Waterloo Place, Mornington, VIC 3931 (at grade public carpark)
- 2 Queen Street, Mornington, VIC 3931 (existing Mornington Shire Offices)
- 90 Besgrove Street, Rosebud, VIC 3939 (existing Rosebud Shire Offices)
- 21 Marine Parade, Hastings, VIC 3915 (existing Hastings Shire Offices)
- 350 Dunns Road Mornington Vic 3931 (Civic Reserve).

In March 2024, expert consultants were appointed to undertake the Business Case for the future workplace project. The first stage of this work is a final site study, which analyses the above locations in further detail to produce a final ranking of the locations based on their suitability for a future consolidated office for the Shire.

Options for consideration

The Business Case process involves a two-stage approach with two Council decision points. The first stage is now complete, with each of the shortlisted sites evaluated against a range of criteria and a ranking score established.

Key findings for this stage are outlined in the six attachments:

1. Future Workplace Business Case Site Options Findings
2. Future Workplace Business Case: Site Options Evaluation Report

3. Future Workplace Business Case Architectural Capacity and Test Fit Analysis

4. Future Workplace Economic Impact Assessment

5. Future Workplace Traffic Engineering Assessment

6. Site Analysis: Community Engagement Summary Report.

As an outcome of the architectural capacity and test fit analysis, 2 Queen Street and 5 Queen Street, Mornington, have been merged into one precinct option for the business case, as outlined in the site evaluation section below.

Evaluation Criteria and Key Inputs

A central component of the site options evaluation was the development of an evaluation criteria matrix as a method for assessing and ranking the sites. The evaluation criteria were based on the project's four guiding principles and included twenty subcategories based on site-specific constraints, planning controls, economic impacts, and accessibility.

The following key inputs supported the evaluation assessment:

- Town Planning Control Analysis
- Architectural Capacity and Test Fit Analysis
- Traffic Engineering Assessment
- Economic Impact Analysis
- Community Consultation Program
- EoI Process.

Attachment 1: Future Workplace Business Case: Site Options Findings outlines an overview of the above.

Expression of Interest Outcome

In February 2024, an EoI process was undertaken to ascertain if any opportunities existed for a private partnership in delivering a consolidated office. The outcome of this process has been used as input in the assessment of the shortlisted locations.

Site Evaluation

Preferred Site Options

Based on all the key inputs outlined above in the evaluation criteria assessment of the shortlisted sites, the two preferred options for the Tier 1 office are:

- Mornington Shire Office Site (2-8 Vancouver St, 2 Queen St, 19-21 Main Street) and 5 Queen Street Car Park (Precinct Option), Mornington.
- 35 Wannaeue Place, Rosebud.

The two highest-ranking site options have several common attributes that make them highly suitable as the preferred location for the Shire's Tier 1 office, which are summarised below:

Mornington Shire Office Site (2-8 Vancouver St, 2 Queen Street, 19-21 Main Street) and 5 Queen Street Car Park (Precinct), Mornington.

- Located strategically in the Mornington Major Activity Centre (MAC).
- Existing civic office site could be redeveloped for consolidated offices in conjunction with adjoining land at 5 Queen Street and provide a co-location/integration opportunity.
- Proximity to public car parking areas will support Shire use.
- Provides the best access to public transport of the shortlisted locations.
- Site has good capacity to provide high-quality public realm that improves the Shire's image and pride.
- Aligns strongly with the key themes from the community consultation, which were the desire for an accessible and cost-effective Shire office with good access to public transport and located near other services and existing community facilities.
- 66% of the Shire can access the site by private vehicle within a 20-minute drive.
- Existing Library can be retained, saving on the capital cost of new facility provision as part of the Tier 1 office.
- Site offers other revenue opportunities (e.g. Lease of space to complementary tenants, partners, or not-for-profit organisations).
- The EoI process received a proposal for the development of the 5 Queen Street site. Based on underlying land values in Mornington, this site is likely to support developer interest.
- Economic stimulus impacts – This site has the potential to generate $1.6 million in spend in Mornington MAC and will assist in attracting and retaining retail businesses.
- Reuse of existing Shire offices on a refurbished basis allows for reuse of an existing asset with potential cost savings to the project.
- Capacity to use public carparks and other Council land to reduce multi-deck car parking provides opportunities to minimise costs.
- Location offers the most potential to attract staff living outside the Shire.

Wannaeue Place, Rosebud

- Shire-owned site located strategically in the Rosebud Major Activity Centre (MAC).
- Existing shopping centre with significant redevelopment potential.
- The site has a good capacity to provide high-quality public realm that improves the Shire's image and pride.
- Aligns strongly with the key themes from the community consultation which were the desire for a centrally located and accessible Shire office located near other services and existing community facilities.
- 64% of the Shire area can access the site by private vehicle within a 20-minute drive.

- Site has potential to complement and connect with adjoining land uses and activity (e.g. Library, retail/commercial), as part of a site redevelopment.

- Site offers other revenue opportunities (e.g. lease of other space to complementary tenants, partners, or not-for-profit organisations) to minimise cost to Council.

- Economic stimulus impacts – This site has the potential to generate $2.1 million in spend in Rosebud MAC and will assist in attracting and retaining retail businesses.

- Site has the potential to improve Point Nepean Road as the central spine of the Rosebud MAC.

Site Options Not Preferred

Four of the six site options have been identified as not preferred for the location of the Shire's Tier 1 Office:

- Waterloo Place, Mornington, VIC 3931 (at grade public carpark)

- 90 Besgrove Street, Rosebud, VIC 3939 (existing Rosebud Shire Offices)

- 21 Marine Parade, Hastings, VIC 3915 (existing Hastings Shire Offices)

- 350 Dunns Road Mornington Vic 3931 (Civic Reserve)

The reasons for these site options not being preferred are summarised below:

<u>Waterloo Place, Mornington, VIC 3931 (at grade public carpark)</u>

- Less prominent location compared to other Mornington township-based options.

- There will be a requirement to replace a sizeable amount of public car parking at this location and this will have a significant cost due to size and scale of multideck car park that would be required.

- The Mornington Activity Centre Structure Plan 2007 flags the Waterloo Place site for possible medium-density residential development. Use of site for Shire offices would preclude this use and potential housing supply potential.

<u>21 Marine Parade, Hastings, VIC 3915 (existing Hastings Shire Offices)</u>

- Located more remotely in the Shire with a relatively lower localised population catchment compared to Mornington and Rosebud.

- Only 50% of the Shire's population is within a 20-minute car drive of this site.

- This site has been identified as the preferred location for the Performing Arts Centre, and a business case has been prepared. The capacity to accommodate both uses and associated car parking will be difficult due to planning restrictions.

- Proposed onsite car parking provision for staff will have a shortfall and is not expected to meet the overall demands.

- While bus and VLine train access is provided, Hastings is not connected by public transport to other areas of Mornington Peninsula along Port Phillip Bay, making public transport very difficult for most employees within the Shire.

- Poor access from the main population areas of the Shire and metropolitan Melbourne would result in a considerable number of long commuting trips to Hastings with limited options for alternative travel. This is likely to impact staff attraction and retention.

- Planning controls covering the site limit development to 3 levels and negatively impact the capacity of the land to accommodate Council requirements.

350 Dunns Road Mornington Vic 3931 (Civic Reserve).

- Draft Masterplan for the site identifies a range of uses limiting site options for the Tier 1 offices to the Mornington Peninsula Art Gallery (MPAG) and surrounding land.

- Located away from Mornington Township and not located in a MAC enabling community access to multiple activities.

- Does not align with key themes of the community feedback undertaken relating to being accessible, near other services and public transport.

- Site not in a prominent location limiting the capacity to improve the Shire's image.

- Site not located in Mornington MAC which limits opportunity for private sector partnership and co-location opportunities.

- Limited opportunities for other revenue opportunities (e.g. lease of space to complementary tenants, etc.).

- The relocation and/or development of a new Regional Art Gallery building will significantly increase the project's cost.

- Concepts propose 2 and 3 level development in a park-like setting adjoining Heritage listed gardens and homestead likely to be a poor urban design outcome with potential for community objection.

90 Besgrove Street, Rosebud, VIC 3939 (existing Rosebud Shire Offices)

- Use of site for Tier 1 office precludes the opportunity to divest site to offset project costs.

- Site is not in a prominent location with a limited capacity to improve the Shire’s image.

- The site is located away from the Rosebud MAC, which does not enable community access to multiple activities.

- Does not align with key themes of the community feedback undertaken relating to being accessible, near other services and public transport.

- Limited capacity to co-locate other community facilities on this site (e.g. Rosebud Library).

- Residential interface is not desirable.

- Precinct is already at capacity from a car parking perspective and unlikely to be able to meet this demand with a consolidated office on site.

- Site is limited in partnership opportunities due to location.

- Given the age and condition of the existing building and associated Building Code of Australia non-compliance issues, refurbishment will require new building components

and be costly and difficult. This limits the opportunity to save costs by using existing buildings.

NEXT STEPS

In line with the above information, for stage two of the business case, it is recommended that Council proceeds with the two highest-ranking site options (both suitable preferred locations for the Shire's Tier 1 office) for further investigations and analysis to determine the preferred site.

This will allow each site to be analysed further, including detailed traffic and car parking impacts, further exploration of private partnership potential, confirmation of tiered model requirements at Tier 2 and 3 sites, and opportunity cost/divestment analysis. This will provide a clearer picture of which site provides the best outcome for the community and the most financially viable option for Council.

ENGAGEMENT

A key input of the site evaluation was a community consultation program. We asked our community what features or spaces they would like in a consolidated Shire office, what factors would make an ideal site, and what specific challenges they foresee with the listed locations. With over 23,000 plays of the social video and 780 visits to the Shape Page, the 70 contributions to the survey have raised some key themes for consideration, which align well with the proposed evaluation matrix and overall guiding principles.

The key themes reflected a broad range of community needs and priorities, from practical facilities and services to cultural and social support, highlighting immediate requirements and long-term planning considerations.

Overall, the feedback reflects a desire for centrally located, accessible, and cost-effective Shire offices that are located near other services and existing community facilities and address long-term environmental and population considerations. Parking, traffic congestion, and financial prudence are key concerns that must be addressed in the planning process. Attachment 6: Site Analysis: Community Engagement Summary Report includes a full overview of the community feedback.

LEGAL AND REGULATORY FRAMEWORK

Not applicable.

CLIMATE AND SUSTAINABILITY CONSIDERATIONS

One of the adopted guiding principles is for the project to be affordable and sustainable and includes the goal of an environmentally sustainable design to help achieve net zero emissions. Once the project reaches the design stage all efforts will be made to meet all environmentally sustainable design requirements in line with Council's declared climate emergency.

FINANCIAL CONSIDERATIONS

Council have invested the following into the Future Workplace project to date:

- In the 2022-23 Council budget $180,000 was included to undertake a study to ascertain the functional requirements and best location for a future workplace for the Shire.

- A funding allocation of $390,000 was included in the 2023-24 budget to continue progressing the project through final feasibility and start a business case.

- A final amount of $280,000 was included in the 2024-25 budget to take the business case through to completion and complete any additional related portfolio work that is required.

The subsequent stages of the project (design and delivery) will be subject to confirming further funding.

OFFICER DIRECT OR INDIRECT INTEREST

No person involved in the preparation of this report has a direct or indirect interest requiring disclosure.

Federal Black Spot Program – Application Submitted for 25/26 FY

Projects	Scope	Requested Funding
Baldrys Road between Browns Road and Mornington Flinders Road	Driveway Sealing. Guardrail and its terminals replacement north on Kolonga Fire Access Track (east side of Baldrys Road) and South of Main Creek to current standard. Installation of warning and advisory signs.	$195K
Bentons Road between Dunns Road and Racecourse Road	Installation road safety platform (RSP) at the Marriott Drive and Moorhead Ave and Bentons Road round about approaches. Installation of road safety platform (RSP) at Marriott Drive side road with Bentons Road intersection.	$360K
Craigie Road between Dunns Road and Racecourse Road	Installation of pedestrian refuge island. Installation of lighting. Installation of dragon teeth line marking on approach to the roundabout .	$120K
Browns Road and Jetty Road intersection	Installation of splitter island and mountable concrete apron on Browns Road. Installation of signage.	$117K
Wilsons Road - Barkly Street to Nepean Highway	Installation of splitter island at Hampden Street, York Street, Adelaide Street, Downward Street, Moona Avenue, Orchid Street, Pitt Street. Installation of raised pedestrian crossings.	$427K

	Kerb outstands Orchid Ave and installation of lighting at Orchid Ave. Speed limit reduction between Nepean Hwy to Barkly St from 60km/h to 50kh/h	
Sandy Point Road between Alexandra Avenue and Lord Sommers Road	Shoulder sealing, installation of guardrails at high-risk location, replace existing CAM's signs to current standard.	$555K
Mornington Area wide Local Area Traffic Management	Installation of road safety platforms at high-risk locations to reduce the operational speed. Speed limit reduction area wide to 40km/hr. Pavement marking of 40km/h.	$929K
Capel Sound Area wide Local Area Traffic Management	Installation of road safety platforms at high-risk locations to reduce the operational speed Speed limit reduction area wide to 40km/hr. Pavement marking of 40km/h.	$1.22M
Forest Drive between Bradford Road and Nepean Highway	Ezy-Guard Smart (Flexible) Guardrail installation at high-risk location. Installation of audio-tactile centre line marking Intersection warning - T intersection. Speed limit reduction to 70 km/h.	$264K
Colchester Road, Capel Sound	Raised intersection at Colchester Road and Newington Avenue. Skid resistance overlay at the bend.	$210K
Tucks Rd and Shands Rd, Main Ridge	Installation of a raised intersection in conjunction with road safety platforms	$785K

	on approach to the intersection Raise awareness measures for the intersection during the night through the installation of LED RRPM's Relocation of a speed limit sign Sealing of Tucks Road (South leg for 50m)	
Dundas Street between Browns Road and Melbourne Road	Installation of road safety platforms at side streets to reduce the operational speed and increase reaction time at intersections.	$494K