

Traffic and Transport Assessment

82-84 Mountjoy Parade, Lorne

V160925T

Prepared for
Cuda Property Management Pty Ltd

19 July 2016

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Document Information

Prepared for Cuda Property Management Pty Ltd
Project Name 82-84 Mountjoy Parade, Lorne
File Reference V160925T REP001 F01.docx
Job Reference V160925T
Date 19 July 2016

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Document Control

Version	Date	Author	Author Initials	Reviewer	Reviewer Initials
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1 Introduction

Cardno was retained by Cuda Property Management Pty Ltd to undertake a traffic and transport assessment of the proposed tavern and residential development at 82-84 Mountjoy Parade, Lorne.

In the course of preparing this assessment, the subject site and its environs have been inspected, plans of the development examined, and all relevant traffic and parking data analysed.

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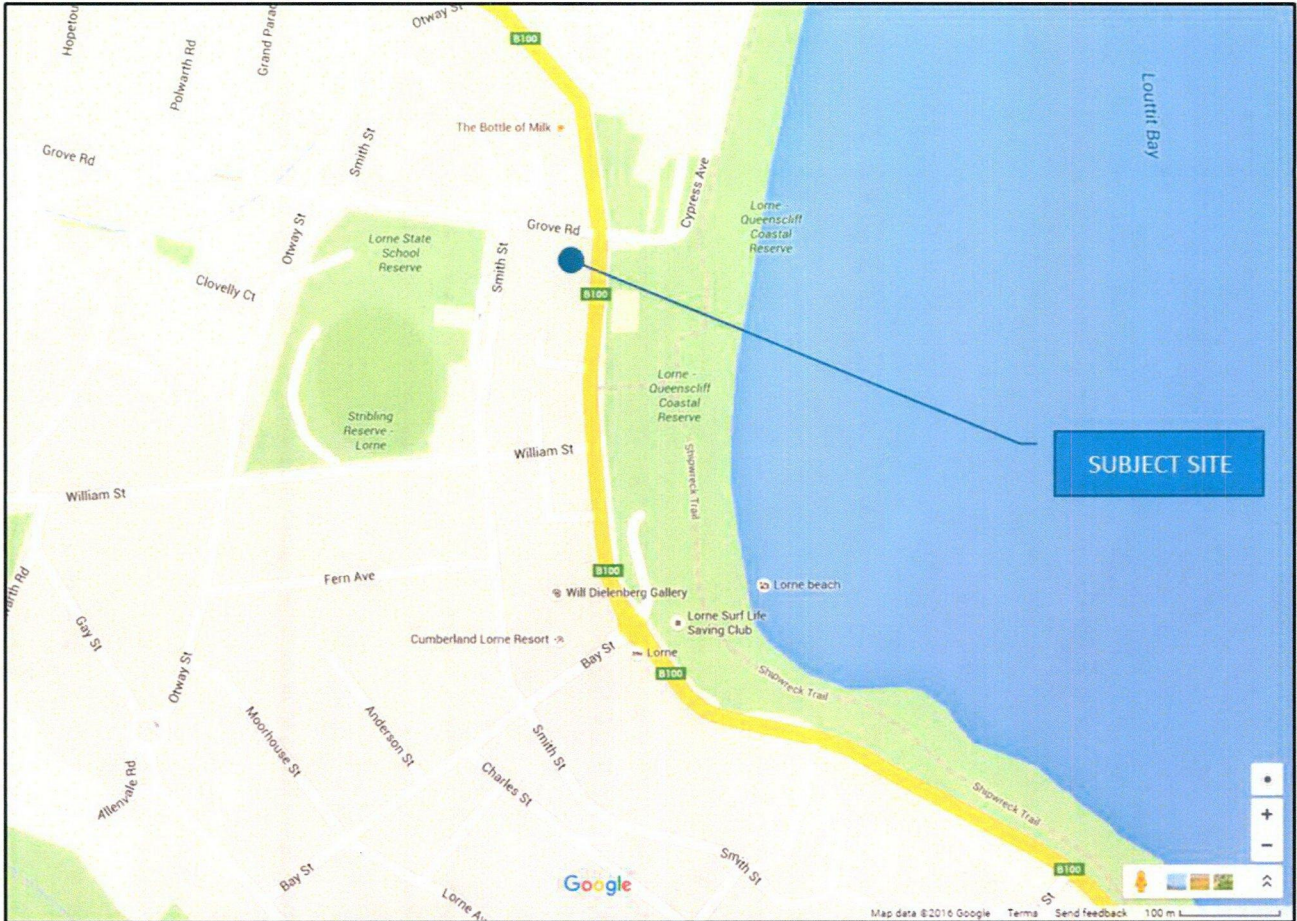
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2 Background and Existing Conditions

2.1 Location and Land Use

The subject site is located on the western side of Mountjoy Parade, as shown in Figure 2-1.

Figure 2-1 Locality Map



The site is currently occupied by the Cuda Bar and Restaurant, which is permitted to have 182 patrons on-site. No on-site parking is provided.

Vehicular access to the site is available via a Right of Way from Grove Road at the rear of the property on the corner of Mountjoy Parade and Grove Road.

Pedestrian access to the site is focused upon the Mountjoy Parade frontage.

Surrounding the site is a combination of commercial and residential land uses, with the township of Lorne being generally aligned along the western side of Mountjoy Parade.

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2.2 Road Network

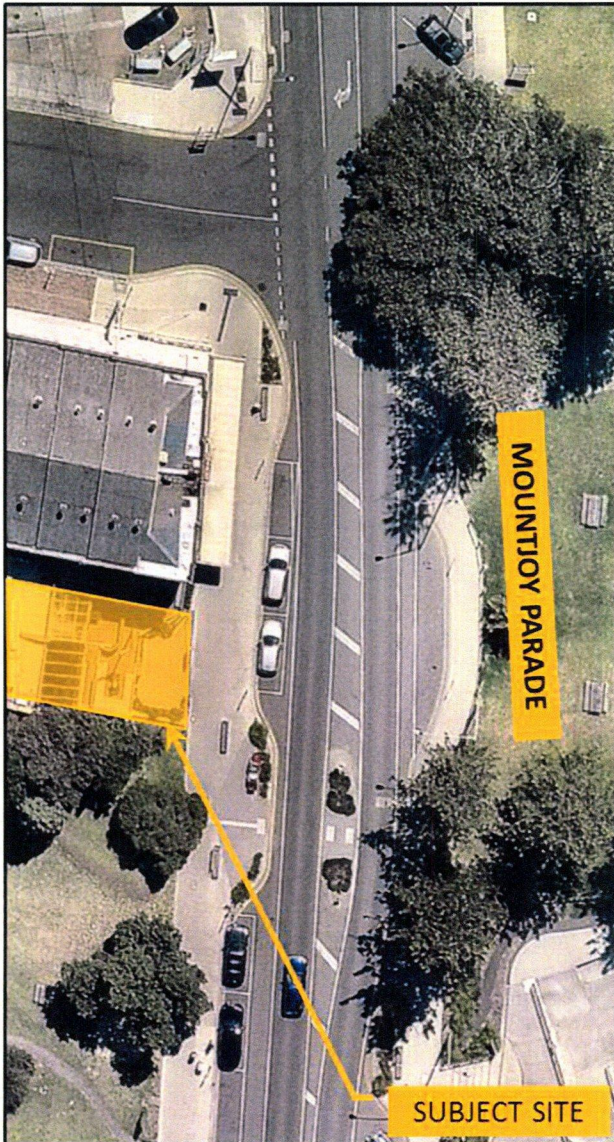
2.2.1 Mountjoy Parade

Mountjoy Parade is the name given to the stretch of the Great Ocean Road between the Erskine River in the north and the Grand Pacific Hotel in the south. Mountjoy Parade predominantly serves as both a through route for traffic on the Great Ocean Road, and also as the main access for Lorne's prevalent retail/restaurant/commercial precinct.

Mountjoy Parade has parking permitted along both sides of its carriageway, comprising a combination of indented and kerbside parallel parking, as well as indented angle parking.

Adjacent to the subject site, Mountjoy Parade operates with two approximately 3.0 metre lanes separated by a chevron linemarked median, as shown in Figure 2-2.

Figure 2-2 Mountjoy Parade in the Vicinity of Grove Road



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2.2.2 Grove Road

Grove Road is a local road operating from Mountjoy Parade in the east to Otway Street in the west. Adjacent to the subject site, Grove Road operates with a single carriageway of approximately 12 metres catering for two way traffic flow and kerbside parallel parking on both sides (subject to restrictions).

Figure 2-3 shows Grove Road between Mountjoy Parade and Smith Street, including the access to the subject site at the rear of the building on the corner of Mountjoy Parade and Grove Road.

Figure 2-3 Grove Road, between Mountjoy Parade and Smith Street



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2.2.3 Right of Way

A Right of Way (RoW) provides vehicular access to the rear of the site, operating from Grove Road for approximately 20 metres south to the subject site. The right of way is approximately 3 metres wide, and can be seen in Figure 2-4.

Figure 2-4 Right of Way, looking south towards the subject site



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3 Proposed Development

It is proposed to redevelop the subject site for the purposes of a mixed use building, comprising tavern uses at the ground floor with apartments above, as summarised in Table 3-1.

Table 3-1 Development Schedule

Level	Component	Description
Ground Floor	Tavern 1	138 m ²
	Tavern 2	137 m ²
Level 1	Apartment 1	3 bedrooms
	Apartment 2	3 bedrooms
Level 2	Penthouse 1	3 bedrooms
	Penthouse 2	3 bedrooms
Basement	Tavern 1 Office	15 m ²
	Tavern 2 Office	15 m ²
	Car spaces	8 No.
	Bicycle spaces	12 No.

The existing tavern on the site has a permit to operate with up to 182 patrons. It is proposed to increase this to 360 patrons total. The proposed basement office areas are anticipated to operate as ancillary to the main tavern use, and will not generate any additional staff.

3.2 Access and Car Parking

Vehicular access to the site will be available via the existing Right of Way on the northern side of the site connecting to Grove Road. The Right of Way is approximately 20 metres in length.

A car lift is proposed to carry vehicles from ground level down to a basement car park. The car lift is proposed to have a 5.5m by 3.4m platform, with the extra width required to accommodate the vehicle turning into the parking aisle, as shown in the swept paths at Appendix A.

A total of eight parking spaces are proposed to be provided within the basement car park. Spaces are typically 2.8 metres wide by 4.9 metres long, accessed from an aisle of 5.8 metres, in accordance with the Surf Coast Planning Scheme.

Swept paths have been prepared to demonstrate that access and circulation within the car park is appropriate (Appendix A).

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4 Bicycle Parking

Clause 52.34 of the Surf Coast Planning Scheme sets out the bicycle parking provision requirements with regard to various land uses. Table 4-1 summarises the application of these rates to the proposal.

Table 4-1 Bicycle Parking Requirements

Component	Area/No.	Employee / Resident	Visitor		
		Rate	Requirement	Rate	Requirement
Tavern ¹	275 m ²	1 space to each 300 m ²	1 space	1 space to each 500 m ²	1 spaces
Dwelling	4 No.	1 space to each 5 dwellings	1 space	1 space to each 10 dwellings	0 spaces
Total	-	-	2 spaces	-	1 space

Notes: 1. "Tavern" is nested within the land use "Food and Drink Premises" which is nested within the land use "Retail", and the ancillary office areas within the basement have been excluded.

The development therefore requires the provision of two spaces for residents and staff, and one visitor space.

The development plans show bicycle hooks within the basement which exceed the minimum requirements of the Surf Coast Planning Scheme.

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5 Loading

Clause 52.07 of the Surf Coast Planning Scheme outlines the requirements for the loading and unloading of vehicles. It specifies that:

- > No building or works may be constructed for the manufacture, servicing, storage or sale of goods or materials unless:
 - Space is provided on the land for loading and unloading vehicles as specified in Table 5-1;
 - The driveway to the loading bay is at least 3.6 metres wide;
 - The driveway that provides access to the loading bay is at least 3.6 metres wide.
 - A permit may be granted to reduce or waive these requirements if either
 - The land area is insufficient; or
 - Adequate provision is made for loading and unloading vehicles to the satisfaction of the responsible authority.

Table 5-1 Planning Scheme Loading Requirements – Clause 52.07

Floor Area of Building	Minimum Loading Bay Dimensions	
2,600 m ² or less in single operation	Area	27.4 m ²
	Length	7.6 m
	Width	3.6 m
	Height clearance	4.0 m
For every additional 1,800 m ² or part	Additional 18 m ²	

Considering the above, the restricted retail component of the proposed development requires a loading area of 27.4m².

The width of the Right of Way which is only 3.0 metres, which is not sufficient to provide access to a loading facility in accordance with the Surf Coast Planning Scheme and it would not be desirable to provide access to a loading facility from Mountjoy Parade from a streetscape perspective. Therefore, in this instance, it is considered appropriate for loading to occur kerbside in Grove Road.

Bin storage areas will be provided on-site, within the basement for residents and at the rear of the taverns, and bins will be wheeled out to Grove Road for collection.

Deliveries to the site are proposed to mainly consist of small trucks and vans given the proposed tavern uses, and these will be able to make use of the loading zone at the eastern end of Grove Road on the southern side of the carriageway.

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6 Car Parking

6.1 Statutory Requirements

Clause 52.06 of the Surf Coast Planning Scheme specifies the following parking provision requirements with regard to the different components of the proposed development.

Land Use	Area / No.	Rate	Requirement
Tavern ¹	360 patrons	0.4 spaces to each patron permitted	144
Dwelling (3 bedroom)	4 No.	2 spaces to each dwelling	8 spaces
		Plus 1 space to every 5 dwellings for visitors	0 spaces
Total	-	-	152 spaces

Considering the Planning Scheme requirements, a total of 152 parking spaces should be provided for the development.

It is proposed to provide a total of eight (8) spaces on-site, which represents a shortfall of 144 spaces in relation to the statutory requirements outlined above.

Clause 52.06-6 of the Surf Coast Planning Scheme states that an application to reduce or waive the requirement for car spaces must be accompanied by a Car Parking Demand Assessment, which includes an assessment of the following:

- > 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.

Furthermore, 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.

6.2 Car Parking Demand Assessment

6.2.1 Tavern

The rate at which parking is generated by staff and patrons of hotels, bars and taverns varies depending upon the nature of the premises, the type of entertainment provided, the size of patron groups and the proportion of patrons and staff who travel to the site by means other than private car, including taxis and on foot.

The times of peak patronage and peak parking demand for bar/tavern uses typically occurs on Friday and Saturday evenings well after normal business hours. Case study data indicates peak parking generation rates that vary from around 0.15 spaces/patron to 0.30 spaces/patron.

While Lorne is not a traditional inner-urban location which are typical of the tavern case study data held by Cardno, it is considered that Lorne presents a similar characteristic in terms of the radius from which patrons will be drawn. Figure 6-1 shows a 2.0km radius around the subject site, demonstrating that the vast majority of Lorne falls within this radius around the site. Given the nature of the town as a holiday destination, and a tavern as a drinking destination, it is likely that a high proportion of patrons would opt to walk to the site if they are within that 2km radius.

Therefore, it is considered that the car parking demand associated with the site will likely be lower than the Planning Scheme Rate of 0.4 spaces per patron, and is in fact likely to be in the order of 0.20 spaces per patron.

The proposed tavern is therefore anticipated to generate a parking demand for approximately 72 spaces, likely to occur on a Friday or Saturday evening.

Additionally, it will be assumed that each tavern will generate a demand for up to five staff spaces during peak operating periods, thereby increasing the anticipated total parking demand to 82 spaces.

In comparison, the existing tavern accommodating up to 182 patrons would be expected to generate a peak parking demand for around 41 spaces, comprising 36 patron vehicles and five staff vehicles. The proposal therefore represents an increased parking demand for in the order of 41 spaces.

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Figure 6-1 Subject Site with 2km Radius



6.2.2 Residential

The proposed residential apartments each have a total of three bedrooms, and as such, it is considered appropriate to provide each of them with two parking spaces. This rate is in accordance with the Surf Coast Planning Scheme, and therefore considered appropriate for the development.

Visitors to the residential apartments are anticipated to be minimal, with surveys of apartments (albeit in Melbourne) showing residential visitor peak parking demands are typically in the order of 0.1 spaces per dwelling, occurring on Friday evenings and weekends. In this instance, the number of apartments corresponds with a parking requirement for zero spaces, as a result of rounding in accordance with the Planning Scheme, and therefore there is no requirement to provide residential visitor parking on the site.

In any event, it is likely that visitor parking for the residential component would rarely exceed one vehicle, which can be parked in the area surrounding the site with negligible impact on the parking supply in the surrounding area.

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6.3 Car Parking Impact Assessment

6.3.1 Adequacy of Proposed Parking Provision

The proposed on-site parking supply is anticipated to adequately cater for the residential demand. This provision is considered appropriate.

Furthermore, as the car park will be accessed by the one-way-at-any-time Right of Way to Grove Road, a probability assessment has been undertaken to determine the impact of opposing movements delaying traffic on Grove Road. The assessment has indicated that there is less than a 0.5% chance that there will be vehicles travelling in opposing directions on the RoW at any point in time during the peak hour. This is very low, indicating that it will only very occasionally occur.

It is recommended that a warning light be placed on the entrance to the car lift to alert an incoming vehicle that the lift is currently in operation, allowing the driver to wait on Grove Road until the exiting vehicle has passed.

6.3.2 Off-Site Parking - Supply

The local public parking supply in the area surrounding the site comprises a combination of on-street parking and off-street parking in designated parking areas.

Figure 6-2 shows the car parking supply in the area surrounding the site, identifying roads with on-street parking and the nearest off-street parking facility, being that located off Cypress Avenue, north-east of the subject site.

The on-street parking supply along Mountjoy Parade between Bay Street and Otway Street is in the order of 140 spaces. Furthermore, there is capacity for approximately 15 vehicles to park on Grove Road between Mountjoy Parade and Smith Street. It is noted that parking within the town centre is generally time restricted between 9:00am and 6:00pm, but unrestricted during the evening. Parking beyond the centre of town is typically unrestricted.

The most conveniently located off-street parking for the site is the car park accessible via Cypress Avenue which is estimated to have a supply of approximately 110-120 parking spaces. Being gravel, the actual supply of the car park will vary depending upon how closely drivers park.

A second off street car park is located 250 metres south of the subject site near the Lorne Surf Life Saving Club. This car park has a capacity of approximately 110 parking spaces.

Considering these parking supplies, the site is located within walking distance of in the order of 375 parking spaces, not including additional spaces along Grove Road, Smith Street, William Street and Bay Street, all of which would serve the Lorne township during peak summer periods.

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Figure 6-2 Identification of Parking Opportunities



6.3.3 Off-Site Parking - Usage

Holiday destinations, and in particular coastal ones, experience significant fluctuation in terms of the number of people residing in the town over the course of a 12 month period. The township of Lorne has a permanent population in the order of 1,000 people, with The Committee for Lorne indicating that this population can increase to 15,000 people in the peak (presumably Christmas / New Year period, and during festivals and events such as the Pier to Pub and Falls Festival). This extreme population surge in coastal towns and affects the behaviour of the permanent populations and also the expectations of tourists.

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Surveys of car parking around the subject site have not been undertaken as part of this study, as in our experience winter surveys are considered to grossly underestimate demand when compared to summer or peak periods, and summer or peak surveys are considered uncharacteristic of the majority of the year. As such, this assessment is based upon extensive experience in seaside towns such as Lorne, Torquay, Sorrento and Lakes Entrance, as well as local knowledge of Lorne.

The permanent population typically identifies the Christmas / New Year holiday period as a time when parking within the township will be constrained. Behavioural modifications may include shopping outside of typical peak periods (for example early in the day) or doing supermarket shopping at either Colac or Torquay rather than in town.

That same situation is actually a drawcard for tourists to Lorne, who thrive and seek out the party atmosphere of a seaside town during the peak period. Tourists who drive to Lorne will more than likely be staying within a 2km radius of the site, and when coupled with not having to have a "designated driver" for the evening, many will choose to walk to their destination. For those who do drive, the choice of venue is often determined by where car parking is found, as potential patrons who park at some distance from the site would choose a different venue which is closer to where their car is parked.

A review of aerial photos of Lorne available on NearMap shows the fluctuation in parking demands in Lorne, as depicted in Figure 6-3 and Figure 6-4.

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Figure 6-3 Aerial Photo – 11:00am (estimated) on Monday, 2nd March 2015



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Figure 6-4 Aerial Photo – 8:49am on Wednesday, 30th December 2015



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6.3.4 Off-Site Parking – Impact

It is noted that the extreme peaks experienced by coastal towns in the Christmas/January school holidays, Easter and at long weekends often leads to parking supplies being inadequate. For these periods, it is likely that potential patrons will either look elsewhere for their dining and drinking requirements or may alter their attendance to avoid peak patronage periods.

The impact of this development on the off-site parking in the area surrounding the subject site is anticipated to be of an acceptable degree. During busy peak periods, when the proposed taverns are anticipated to operate at capacity, it is likely that patronage will largely comprise holiday makers, with a high proportion

walking to the site to avoid the need for a designated driver. As shown, the majority of the Lorne township is located within 2km of the subject site, well within a walking distance range for holiday makers attending a tavern for either dinner or drinks.

Interview surveys undertaken at a restaurant in a Kew precinct area indicated that up to approximately 40% of patrons chose their restaurant destination once they had arrived in the area. In Lorne, it is likely that this would be higher due to patrons being unfamiliar with the area, and wanting to have a look at venues before choosing one.

For those who do drive, it is likely that they would alter their plans if they are unable to park within an easy walk of the site, with venues both north and south of the proposed taverns offering similar combinations of food and drink. Thus it is considered that parking for the townships should be considered on a precinct wide basis, and the expansion of this venue shouldn't be seen as drawing new patrons to Lorne but rather as providing a potential redistribution of the existing demand.

During the majority of the year, parking in Lorne is generally underutilised, with ample capacity to accommodate any demand generated by the proposed taverns. It is noted that outside of the peak summer period, the patronage associated with the proposed taverns is likely to be generally well below the allowable number of people on the site.

Based upon the preceding discussion, it is considered that parking associated with visitors and employees of the site can and will be adequately absorbed into the surrounding network.

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7 Conclusions

Based on the preceding analysis, it is concluded that:

- > The bicycle parking provision exceeds the minimum requirements of the Planning Scheme.
- > Kerbside loading for the site on Grove Road is a suitable arrangement for the proposed land uses.
- > The on-site parking provision is anticipated to adequately cater for the residential demand with one additional space allocated to staff of the proposed taverns.
- > Public car parking demand in coastal towns fluctuates substantially throughout the year, with peak periods typically resulting in parking supplies being inadequate, however that does not prevent activity from occurring in the town, but instead alters behaviour of both permanent residents and holiday makers.
- > The impact of this development on the off-site parking in the area surrounding the subject site is anticipated to be of an acceptable degree.

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82-84 Mountjoy Parade, Lorne

APPENDIX

A

SWEPT PATH DIAGRAMS

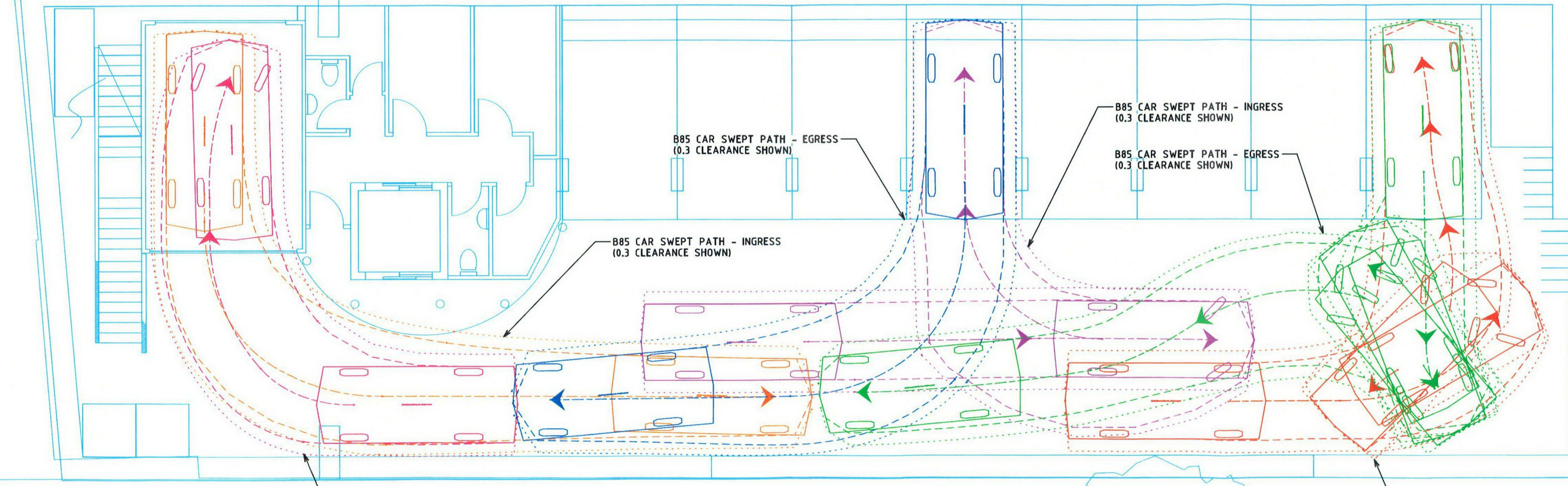
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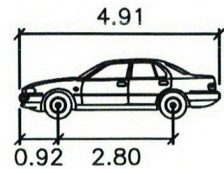
CAD File: M:\2016\0501-1000V160925T_Lorne_Tavern\Traffic\Drafting\03 Sketches\160925T-SK-0001.dgn
DATE PLOTTED: 11/07/2016 10:32:36 AM
BY: cserrengodharur



MELWAY MAP REF 518 G7



DESIGN VEHICLE



B85	meters
Width	: 1.87
Track	: 1.77
Lock to Lock Time	: 6.0
Steering Angle	: 34.1

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CUDA PROPERTY MANAGEMENT			
LORNE TAVERN AND APARTMENTS			
82-84 MOUNTJOY PARADE, LORNE			
BASEMENT SWEEP PATH ANALYSIS			
B85 CAR			
Drawn/Check	Date	Scale	Size
EG / KS	11.07.2016	1:100	A3
Drawing Number			Revisor
V160925T-SK-0001			2