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Proposed Mixed Use Development, 122 Marine Parade, Cottesloe

Transport Impact Statement

PREPARED FOR: Baltinas

revised August 2022

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Author: Vladimir Baltic

Project manager: Behnam Bordbar

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1 Introduction

This Transport Impact Statement has been prepared by Transcore on behalf of Baltinas with regard to the proposed mixed-use development at 122 Marine Parade in Cottesloe, Town of Cottesloe (hereafter the subject site).

The subject site is situated at the southeast corner of the Marine Parade and Napier Street intersection, as shown in **Figure 1**.

Figure 1: Location of the subject site

The Transport Impact Assessment Guidelines (WAPC, Vol 4 – Individual Developments, August 2016) states: *"A Transport Impact Statement is required for those developments that would be likely to generate moderate volumes of traffic and therefore would have a moderate overall impact on the surrounding land uses and transport networks"*.

Section 6.0 of Transcore's report provides details of the estimated trip generation of the subject site after the scheme amendment. Accordingly, as the net change in peak hour vehicular trips is estimated to be less than 100 trips, a Transport Impact Statement is deemed appropriate for assessment of the proposal.

The site is bound by Marine Parade to the west, Napier Street to the north and the existing developments to the immediate east and south. The site is located within a retail/commercial precinct which also includes residential and recreational uses.

The site currently accommodates a two-storey mixed use development with a café at ground floor and residential apartments above. The existing on-site, open-air car park is accessed via Napier Street crossover. The Town of Cottesloe Public Car Park No.2 is located immediately to the north and across Napier Street while the Public Car Park No. 3 and 4 are in place along Napier Street, a short distance to the east of the site.

2 Development Proposal

The subject site, which occupies an area of approximately 560m^2, is zoned *"Foreshore Centre – Special Control Area 2"* under the Town of Cottesloe Local Planning Scheme No.3 (LPS3).

The development proposal contemplates construction of a multi-storey, mixed-use development with associated car parking.

Specifically, the mixed-use development proposal comprises the following elements:

- A total of eight residential apartments; and,
- Commercial tenancy at ground floor totalling about 269m^2 of GFA.

Parking for residents and employees of the commercial tenancy will be accommodated within the two-level basement car park facility shared with the immediately adjacent site to the south (i.e., 120 Marine Parade). There will be a right of carriage over each others property.

The two neighbouring sites propose to share a common vehicular access crossover on Napier Street including the associated R.O.W. leading to the underground parking facility which is proposed to accommodate the car parking for both proposed developments. This approach has been supported and endorsed by the Town of Cottesloe as it removes the need for additional access point on Marine Parade for the "landlocked" 120 Marine Parade site.

The waste collection is proposed to take place off Napier Street through usual verge collection process, just as it is done presently for the existing development at this site.

A secured bike storage space will be provided within the commercial tenancy while end-of-trip facilities (showers and lockers) are proposed at ground floor off the corridor leading to the commercial tenancy.

The resident and commercial visitor parking is proposed to take place off site since ample public parking is available in the immediate vicinity of the subject site. All public parking is accessible via existing paths which are in place on surrounding roads.

Pedestrians will access the development from the external path network which is in place on both frontage roads. A separate ground floor lobby with lifts is provided for the residents and their visitors. This lobby is accessible from Napier Street side.

The ground floor commercial tenancy is accessible directly from the paths which are in place on both frontage roads.

Refer to **Appendix A** for proposed site plans.

3 Vehicle Access and Parking

As presented in the plans prepared by Baltinas architects, the proposed on-site car parking comprises two-level basement car park facility shared access with the adjacent site (i.e., 120 Marine Parade). The proportion of total parking supply within the facility allocated to the subject development totals 19 parking bays. This car parking provision includes:

- 9 and 8 residential bays at Basement 1 and 2, respectively; and
- Two commercial parking bays at Basement 2.

All parking bays are provided in form of single bays (no tandem parking or stackers) so no specific parking bay management is required.

Both basement car park levels will be made accessible by an internal ramp system comprising a two-way, single lane ramp which connects ground level driveway with B1 and B2 levels. The internal ramp can accommodate vehicles travelling in one direction at any one time. At ground level, the ramp connects to the full-movement crossover on Napier Street via an access driveway. A waiting bay is marked on the driveway in front of the car park gate to provide stopping space for a vehicle temporarily waiting for ramp to be vacated so to proceed with the entry. Typically, in such cases, priority is generally given to vehicles exiting the development.

Parking is provided on-site for residents and commercial unit tenants only. All visitor parking is proposed to be accommodated off-site as ample public parking opportunities are located in the immediate vicinity of the site.

4 Provision for Service Vehicles

No specific provision for service vehicles or waste collection is provided within the subject site as part of the development proposal.

Due to the size of the proposed development and types of constituent land uses it is considered appropriate that waste collection operation is carried out through verge collection where rubbish bins are wheeled out to Napier Street verge on collection days either by residents/tenants themselves or by a caretaker.

The delivery vehicles would either park on-street immediately next to the development (larger vehicles) or use the waiting bay for temporary stopping (smaller vehicles).

5 Hours of Operation

The commercial component of the development is expected to operate in line with typical weekday business hours of 7:00AM to 10:00PM, Monday to Sunday.

6 Daily Traffic Volumes and Vehicle Types

6.1 Trip Generation

The traffic volumes likely to be generated by the proposed development have been estimated based on the proposed land uses and floorspaces in accordance with *Transport Roads & Maritime Services Technical Direction TDT 2013/04a* document, which provides daily and peak hour trip rates.

The total daily, AM and PM peak hour trip rates of 11.0, 1.6 and 1.2 trips/100m^2 GFA respectively was adopted for the office component of the development, while the total daily, AM and PM peak hour trip rates of 4.58, 0.53 and 0.32 trips/unit respectively was adopted for the residential component.

Accordingly, it is estimated that the proposed development would generate a total of approximately **66** daily vehicle trips with about **10** and **6** trips during the AM and PM peak hour periods. These trips include both inbound and outbound vehicle movements. It should be noted however, that the proposed development replaces an existing mixed-use development currently generating traffic at the subject site. Therefore, the net traffic impact of the proposed development will be lower than that reported.

The traffic distribution detailed in **Table 1** was based on the following directional split assumptions for peak hour periods:

- Morning (AM) peak split estimated at 80%/20% and 25%/75% for inbound/outbound trips for commercial and residents, respectively; and,
- Afternoon (PM) peak split estimated at 20%/80% and 66%/34% for inbound/outbound trips for commercial and residents, respectively.

Table 1: Peak hour trips for the development

Peak Period	Direction	Comm.	Residents	Peak Hour Trips
AM Peak	Inbound	4	2	**10 cars**
	Outbound	1	3	
PM Peak	Inbound	1	2	**6 cars**
	Outbound	2	1	

6.2 Trip Distribution

Considering the location of the proposed development, the available access and egress routes to and from the development as well as location of key regional attractors, the anticipated directional trip distribution of the development-generated traffic is assumed to be as follows:

- 40% of trips to/from the north;
- 20% of trips to/from the east; and,
- 40% of trips to/from the south.

The directional morning, afternoon and total daily trip distribution of the development-generated traffic is illustrated in **Figure 2.**

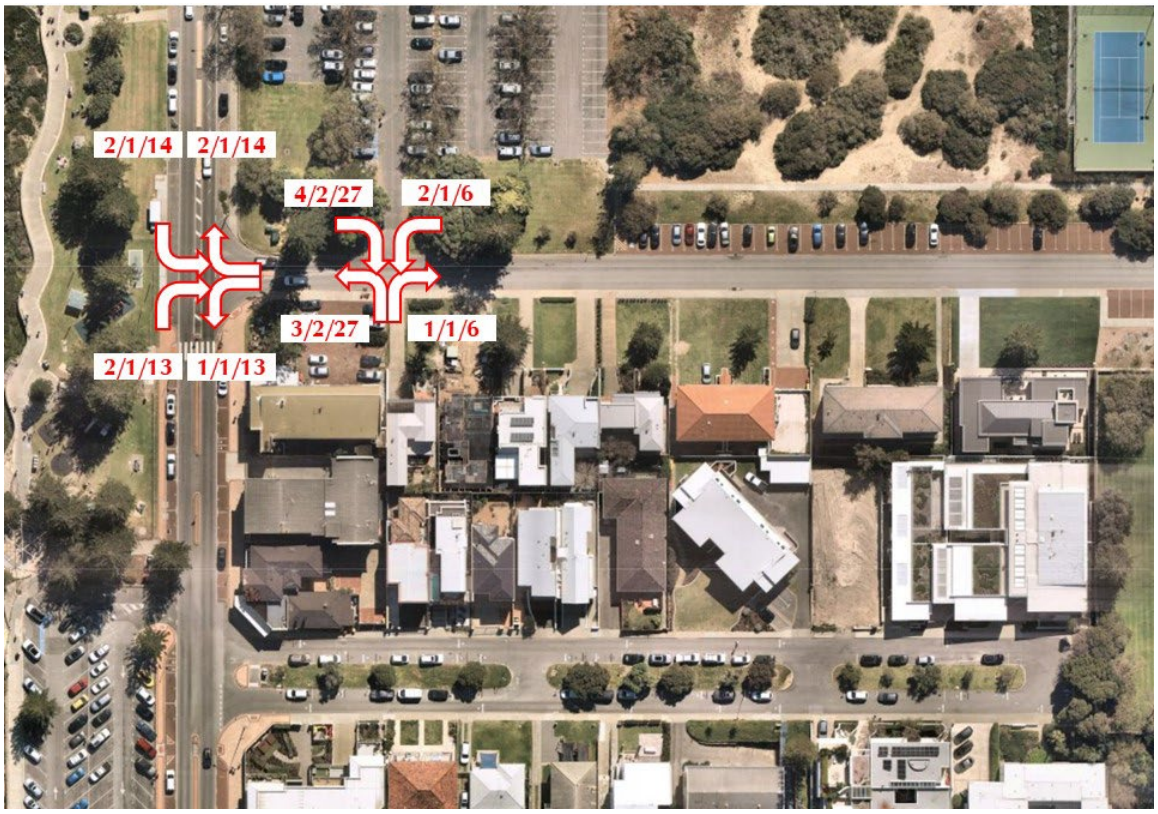


Figure 2. Estimated traffic movements for the subject development – morning peak/afternoon peak/total daily

6.3 Impact on Surrounding Roads

The *WAPC Transport Impact Assessment Guidelines (2016)* provides guidance on the assessment of traffic impacts:

"As a general guide, an increase in traffic of less than 10 percent of capacity would not normally be likely to have a material impact on any particular section of road, but increases over 10 percent may. All sections of road with an increase greater than 10 percent of capacity should therefore be included in the analysis. For ease of assessment, an increase of 100 vehicles per hour for any lane can be considered as equating to around 10 percent of capacity. Therefore, any section of road where the development traffic would increase flows by more than 100 vehicles per hour for any lane should be included in the analysis."

From **Figure 2** it can be seen that the estimated traffic impact from the proposed development would be nowhere near the critical thresholds with the most pronounced traffic increases of 7vph along Napier Street during AM peak hour (west of crossover). Therefore, the impact of the development traffic on the surrounding road network will be insignificant.

It is considered that the surrounding roads and intersections have capacity to accommodate the relatively low traffic generation of the proposed development.

It should be noted that this traffic assessment disregards the existing traffic generation of the site and is therefore conservative. This is because the net traffic increase as a result of the proposed development will be less than the development traffic generation outlined in this report.

7 Traffic Management on Frontage Streets

7.1 Context

The subject site is located at the southeast corner of Marine Parade/Napier Street intersection and immediately next to Cottesloe beachfront.

7.2 Existing Road Network

Marine Parade in the vicinity of the subject site is a single-carriageway, two-lane road with a 1.5m wide solid/painted median. The embayed, on-street public parking is in place along both sides of the road ranging from 5min, 1/2hour to 1hour free parking options. Refer **Figure 3** and **Figure 4** for more details.

Figure 3: Northbound view along Marine Parade in the vicinity of the subject site

Marine Parade operates under a default build-up area speed limit of 50km/h; however, the speed limit is restricted to 40km/h for the section between Forrest Street and Eric Street (through the retail/commercial zone). Wide footpaths are provided on both sides of the road. Pedestrian crossing facilities are currently in place immediately adjacent to the site (across Marine parade) and at the Marine Parade/Napier Street (across Napier Street).

Marine Parade is classified as a *Distributor B* in the Main Roads WA Metropolitan Functional Road Hierarchy document and is under care and control of Local Government.

Figure 4: Southbound view along Marine Parade in the vicinity of subject site

Traffic count data obtained from Main Roads WA indicates that Marine Parade carried average weekday traffic flow of 7,970 vehicles per day (vpd) south of Eric Street in 2019/20.

Napier Street is 7.2m wide, two-lane with 90-degree verge parking between the subject site and Broome Street. Pedestrian footpaths are provided on both sides of the road. Refer **Figure 5** and **Figure 6** for more details.

Napier Street operates under a default build-up area speed limit of 50km/h. It is classified as *Access Street* in Main Roads WA *Functional Road Hierarchy* document. The road is under care and control of Local Government.

Based on Transcore's site observation undertaken in October 2021, it is estimated that Napier Street, immediately east of Marine Parade carries up to 1,000vpd during a typical weekday.

Napier Street forms a priority-controlled T-intersection with Marine Parade at the northwest corner of the subject site. Pedestrian refuge island is provided on Napier Street at this intersection.

Figure 5: Westbound view along Napier Street towards Marine Parade intersection

Figure 6: Eastbound view along Napier Street in the vicinity of the site

8 Public Transport Access

The site is served by bus service No. 102 operating along Marine Parade with the closest bus stops located immediately across and approximately 70m walking distance south of the site. Both stops are accessible via existing footpath system in place at this locality.

This bus service provides links to Cottesloe Train Station at one end and Claremont Train Station at the other thus providing access to Perth's greater railway network (refer **Table 2** for more details).

Table 2: Bus services operating in vicinity of the site

Bus Service	Route
102	Gugery Street (Claremont) to Railway Street (Cottesloe)

As detailed in the bus route map in **Figure 6**, the existing bus service operating in the immediate vicinity of the site provides connectivity to the Perth-Fremantle train line.

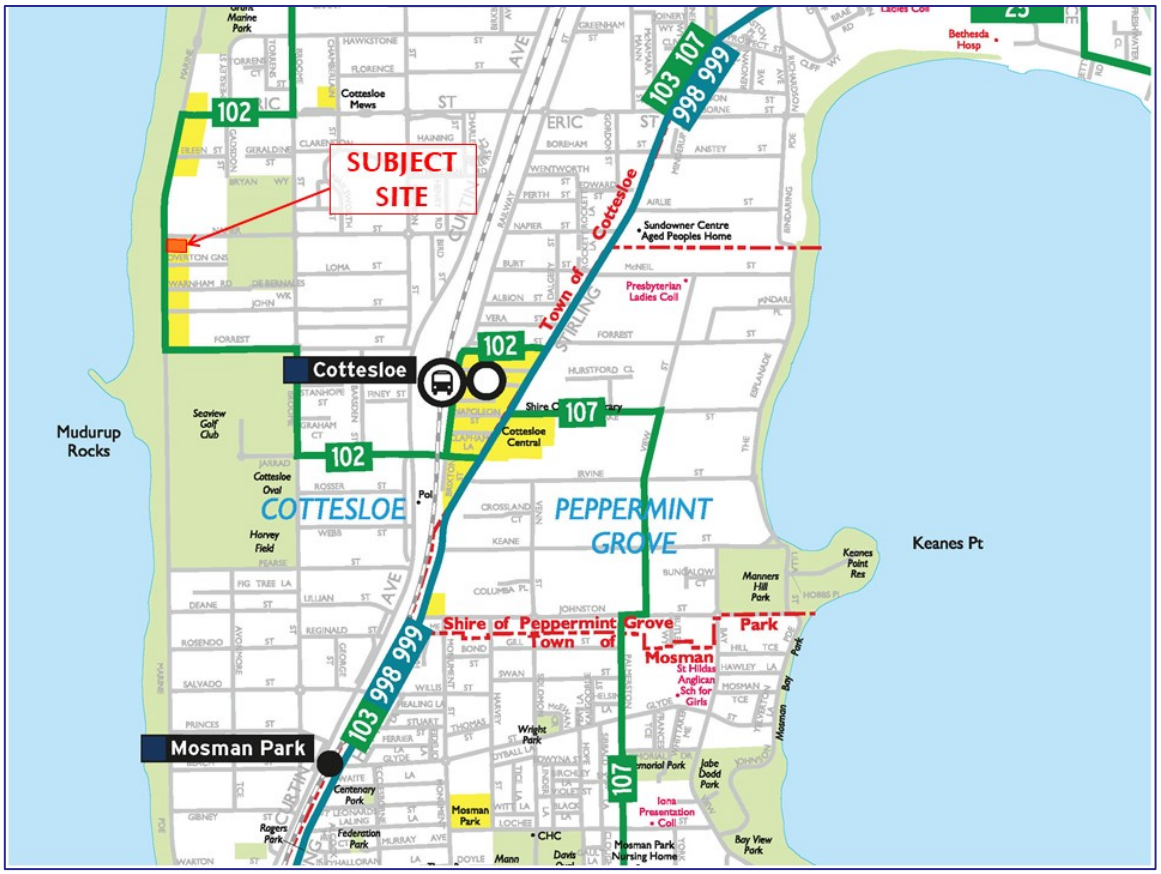


Figure 8: Public transport services (Transperth Map)

9 Pedestrian Access

Pedestrian access to the subject site is facilitated via the existing external footpath network comprising paved footpaths on roads adjacent to the subject site.

Pedestrian crossing facilities including drop kerbs and median refuges are currently provided on both fronting roads at the intersection of Marine Parade and Napier Street.

10 Cyclist Access

The Perth Bicycle Network Map (see **Figure 7**) indicates good pedestrian and cyclist connectivity to the subject site.

The recreational Principal Shared Path is in place along the foreshore in the immediate vicinity of the site with Continuous Signed Route NW16 along Eric Street located a short distance to the north of the site. These two routes provide connectivity to the wider network of shared path, on road cycle lanes and roads classified as "good road riding environment".

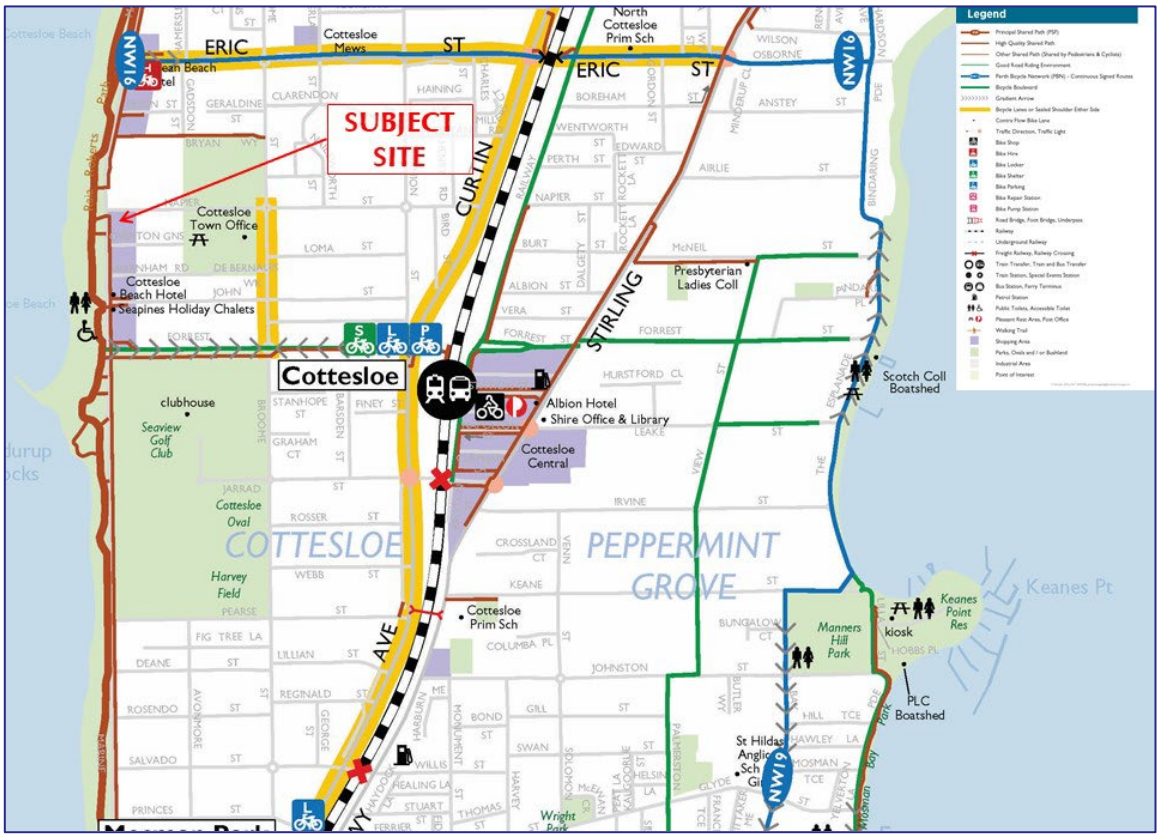


Figure 7: Extract from Perth Bicycle Network (Department of Transport)

11 Site Specific Issues

The details of the management and operation of the basement car park facility proposed to serve the subject development and the recently approved mixed-use development to the immediate south at 120 Marine Parade are provided in **Section 13** (Parking Management System) of this report.

It is understood that Town of Cottesloe is requiring an access easement between recently approved mixed-use at 120 Marine Parade and the proposed development at 122 Marine Parade.

Accordingly, following the instructions from the ToC, the proponent has engaged with the owner of the neighbouring site to amend the original development plans to allow for the introduction of a common (shared) crossover on Napier Street and a R.O.W. between the two sites enabling the operation of the shared two-level basement car park facility. Hence, the subject development shares the underground car parking facility with the adjacent development.

12 Safety Issues

No safety issues were identified within the scope of this assessment.

13 Parking Management System

13.1 Introduction

This section of the report provides details with respect to the Parking Management System (hereafter PMS) for the proposed mixed-use development. The intention of the PMS is to provide operational details associated with the underground car park facility proposed to be shared with the development to the immediate south (120 Marine Parade).

13.2 Access System

The subject site and the adjacent site to the immediate south are proposed to be served by a shared single, full-movement crossover on Napier Street located as far away as practical from the Marine Parade intersection, in order to minimise the impact on the operation of this intersection.

The crossover is connected to the car park ramp system via a two-way driveway. A waiting bay is proposed to be line marked within the "inbound lane" of the driveway for the residents/tenants to temporarily wait for the driveway to become available.

13.3 Parking Management System

The parking management system proposed to control parking operations at the two-level basement car park comprises of internal traffic lights and motion sensors. These will be installed at the ramp entry/exit point on each level. The system will provide real-time information on cars entering or existing the system thus securing seamless and safe movement through the ramp system.

The audio/video system will be complemented with a waiting bay located at the ground level entry into the car park, immediately adjacent to the entry gate. The parking systems like this are typically set up to place movement priority to vehicles exiting the facility (since they need to move up the ramp which is considered to be a more challenging action).

Hence, the proposed audio/video system is expected to provide additional level of traffic and parking efficiency and safety.

13.4 Access Management

Only the residents and commercial tenants from the 120 and 122 Marine Parade developments with the car parking allocation will be issued a remote access gate controller.

13.5 Ramp Operation

Based on the available plans it is estimated that, in a worst-case scenario, a car would likely require up to 1min to clear the ramp accessing or egressing the (deepest) Basement 2 level.

Hence, the car parking ramp would be able to accommodate up to 60 non-conflicting vehicle single-directional movements per hour, assuming even distribution of arriving/departing vehicles. It is estimated that, between the two developments (120 and 122 Marine Parade sites) up to 20 and 13 vehicles would either access or egress the site during the morning and afternoon peak hours of traffic activity, respectively. It is therefore concluded that the capacity of the car parking ramp system is sufficient to easily accommodate this level of traffic and the likelihood of any traffic conflict would be minimal during peak times and negligible outside of those.

Nevertheless, the provision of "waiting bay" at the ground level entry into the car park combined with the priority system favouring vehicles egressing the car park ensures efficient and convenient operation of the parking facility.

13.6 Operational Responsibilities

Building management of both developments will be responsible for the issuance of car park gate remote controls to residents and commercial tenants.

All prospective car park users would need to be inducted to PMP and/or provided with appropriate brochure describing the operation and management of the car park system.

14 Conclusions

This Transport Impact Statement has been prepared by Transcore on behalf of Baltinas with regard to the proposed mixed-use development at 122 Marine Parade in Cottesloe, Town of Cottesloe.

The development proposal contemplates replacement of the existing development at the subject site with a multi-storey, mixed-use development with associated two-level basement car park facility. The underground car park is proposed to be shared with the adjacent site to the immediate south (120 Marine Parade) which is to be accessed by a common crossover on Napier Street.

The traffic modelling undertaken in this report shows that the traffic generation of the proposed development is estimated to be in order of about 66 daily and 10/6 peak hour trips during the typical weekday AM/PM peak, respectively (both inbound and outbound).

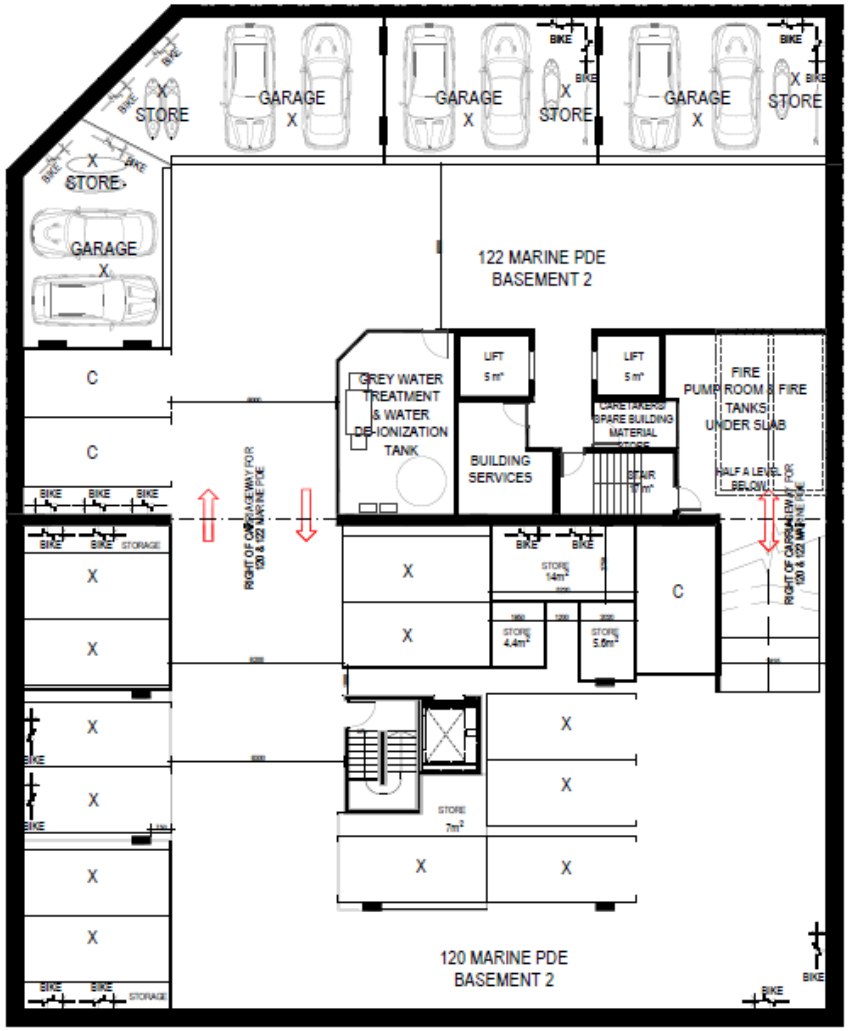
The traffic analysis undertaken in this report demonstrates that the estimated development-generated traffic will have minimal impact on the surrounding road network.

The subject site has very good accessibility by the existing pedestrian and cyclist networks and enjoys public transport coverage through existing bus service operating within the close proximity of the site. Bicycle parking and end-of-trip facilities are also accommodated within the development.

In conclusion, the findings of this Transport Impact Statement are supportive of the proposed mixed-use development.

Appendix A

PROPOSED DEVELOPMENT PLANS



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18/07/22	3	UPDATED CARPARK	BB
25/03/22	2	ISSUE FOR SDAU MEETING	JC
25/03/22	1	ISSUE FOR SDAU MEETING	JC
22/10/21	0	ISSUE FOR AMENDED DA	JC

KEY PLAN

ARCHITECT

Perth

Baltinas

434 William Street
Northbridge
Western Australia 6003

T +61 8 9328 1887
F +61 8 9328 3668
E info@baltinas.com
W www.baltinas.com

PROJECT

122 Marine Parade
Cottesloe, WA 6011

TITLE

RIGHT OF CARRIAGE WAY
BASEMENT TWO PLAN

ISSUE FOR
DA

DATE DRAWN: 18/7/2022 PLOT DATE: 18/7/2022

DRAWN: JC CHECKED: BB APPROVED: BB

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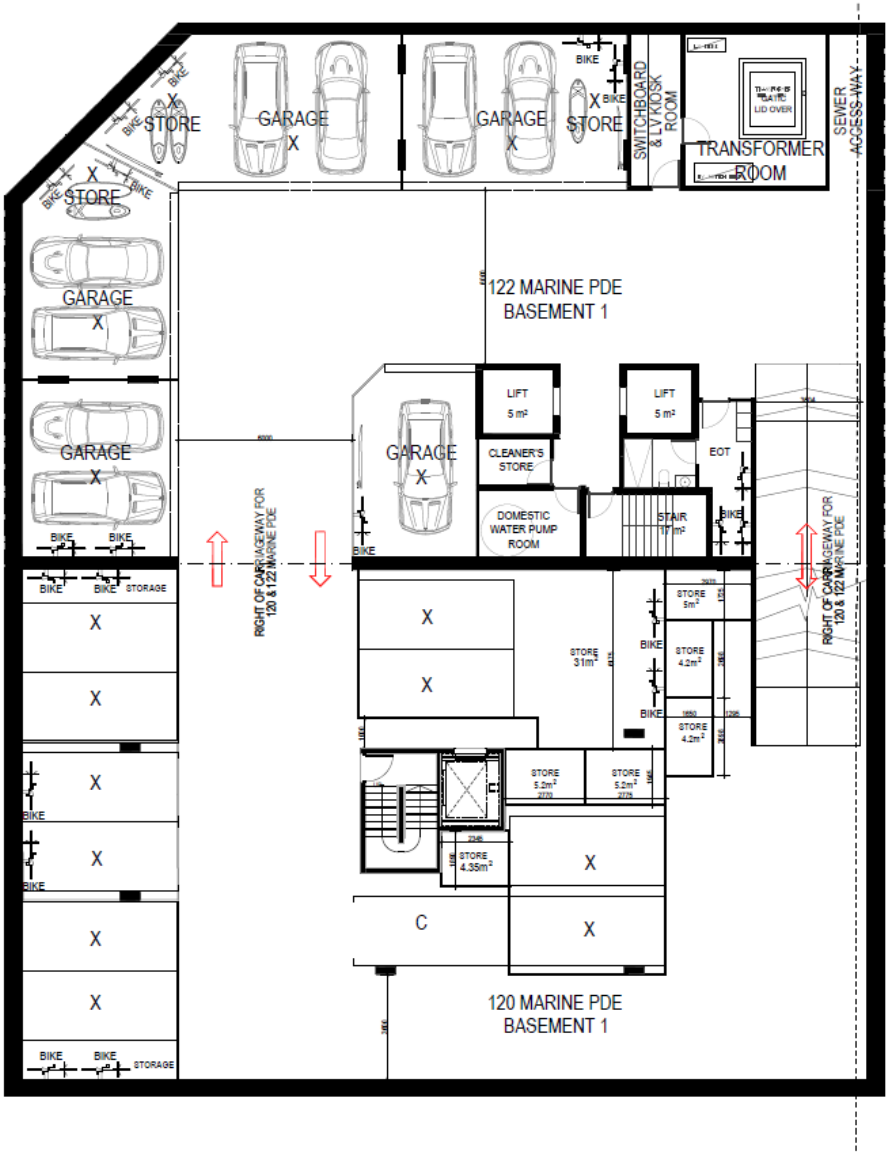

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KEY PLAN

ARCHITECT

Perth
Baltinas
434 William Street
Northbridge
Western Australia 6003
t +61 8 9328 1887
f +61 8 9228 3658
e info@baltinas.com
w www.baltinas.com

PROJECT

122 Marine Parade
Cottesloe, WA 6011

TITLE

RIGHT OF CARRIAGE WAY BASEMENT ONE PLAN

ISSUE FOR DA

DATE DRAWN: 18/7/2022 PLOT DATE: 18/7/2022
DRAWN: JC CHECKED: BB APPROVED: BB
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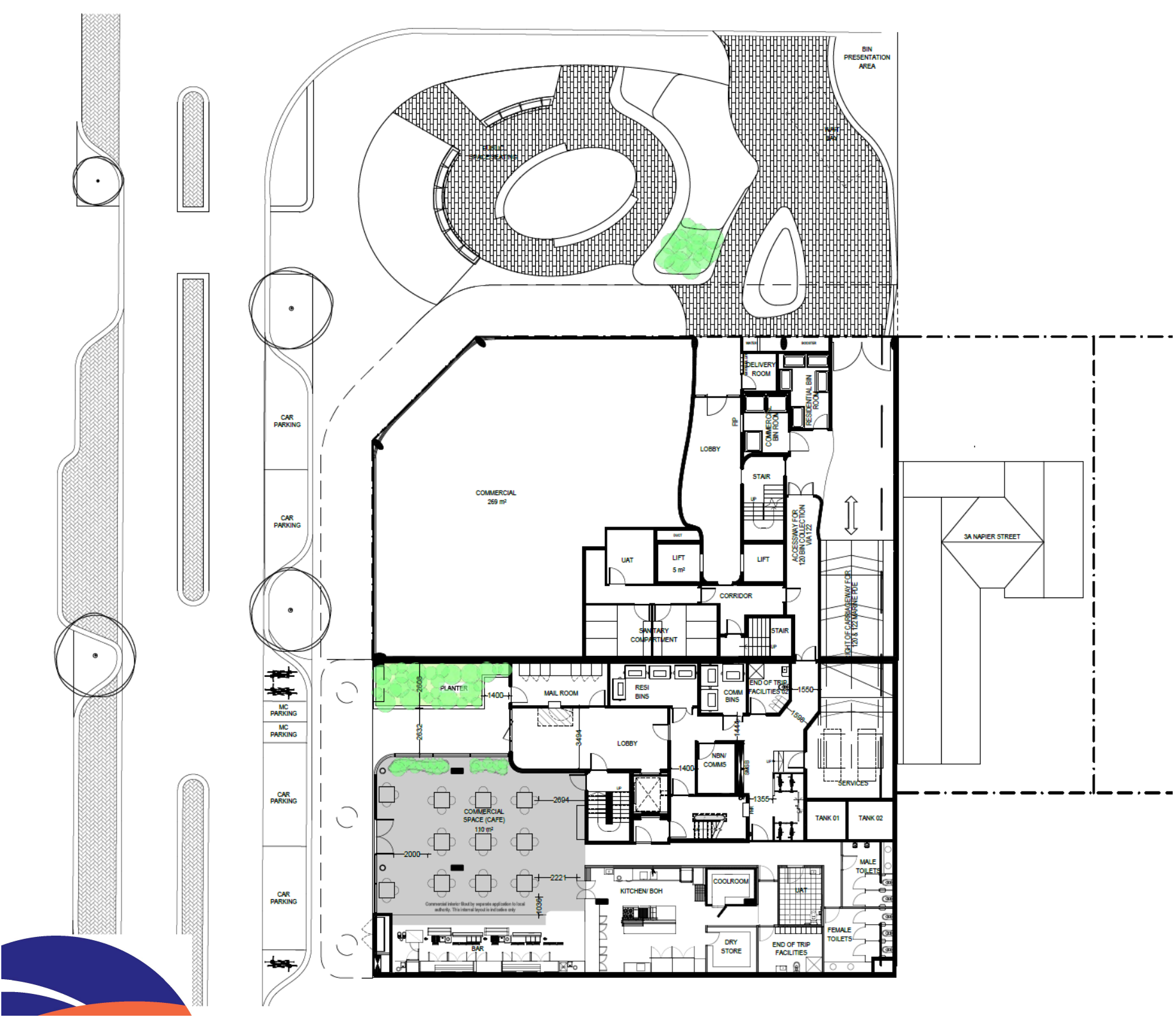

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22/12/21	0	ISSUE FOR AMENDED DA	JC

KEY PLAN

ARCHITECT
Perth
Baltinas
434 William Street
Northbridge
Western Australia 6003
t +61 8 9328 1887
f +61 8 9228 3658
e info@baltinas.com
w www.baltinas.com

PROJECT

122 Marine Parade
Cottesloe, WA 6011

TITLE

RIGHT OF CARRIAGEWAY
GROUND FLOOR PLAN

ISSUE FOR DA

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