Development Engineering Formal Referral Response



Application Information:

Referral Officer:	Mark Pisani	
Officer:	Nish Goonetilleke	
Council Reference:	PPE23/0571	
Referral Number:	IREF23/02130	
Address:	300/658 Church Street, Cremorne	
Proposal:	DEECA Referral	
Comments Sought:	Reduction in Car Parking; Traffic; Access,; Internal Layout	
Disclaimer:	Council's Development Engineering unit, provides the following advice based on information provided in the referral request memo referenced above.	

Engineering Referral Details

Council's Engineering Referral team has reviewed the drawings and documents provided by the Statutory Planning department, as outlined in *Table 1* below.

A list of requirements for the applicant and proposed conditions to be included in the Planning Permit have been outlined in **Section 1 – Engineering Requirements** and **Section 2 – Engineering Conditions** respectively. Specific details of the engineering assessment are provided in **Section 3 – Engineering Detailed Assessment** and have informed the requirements and conditions.

Note: the engineering related matters highlighted in the Planning referral have been assessed and included in the response.

Author / Consultant	Drawing No. or Document	Revision	Dated
OMA Architects	A -08-101 Site Plan A -10-089 Level B01 A -10-100 Level 00 A -16-001 Section A & B A -16-002 Section C & D A -16-004 Section G & H A -19-001 North & South General Elevations A -19-002 East & West General Elevations Existing & Demolition Plans set	A AO A A A A A	3 November 2023 20 November 2023 3 November 2023 3 November 2023 3 November 2023 3 November 2023 3 November 2023 3 November 2023 20 November 2023

Table 1 - Drawings and Documents reviewed by Engineering

Author / Consultant	Drawing No. or Document	Revision	Dated
AAM Group	Richmond Power Station Feature Survey P01 12 M		12 May 2021
BG&E	Traffic Impact Assessment Report Loading Management Plan		21 November 2023 21 November 2021

SECTION 1: Engineering Requirements – Issue to the Applicant

The applicant must satisfy the engineering items outlined in *Table 2* below. A written response must be provided for each requirement, and the action is to be completed prior to resubmission.

Any amendments to plans/drawings or updates to reports/documents must be highlighted using a *red cloud* around the relevant section. In the written response, indicate the relevant sheet/pages of each document which have been amended.

Table 2 - Engineering Requirements for Applicant

ltem	Engineering Requirement	Action for Applicant
1	Depict the on-site accessible parking space and associated shared area. A bollard must be installed in the shared area as required by the Australian/New Zealand Standard AS/NZS 2890.6:2009.	Update the drawings.
2	Test vehicle circulation in basement car park's aisles using the B99 design vehicle with 300 mm clearances on either side of the vehicle.	Update the swept path diagram (Sheet 3 of Appendix A of the Transport Impact Assessment).
3	Consult Council's Parking Management unit in relation to the installation of a Loading Zone in Oddys Lane. Should approval not be granted, an alternative arrangement should be considered.	Consult Council's Parking Management unit.

SECTION 2: Engineering Conditions – Planning Permit

The conditions outlined in *Table 3* below must be included in the Planning Permit to ensure the specific engineering requirements are complied with.

Note: further conditions may be required if any of the items in Table 2 are not fulfilled prior to the issuing of the Planning Permit.

 Table 3 - Engineering conditions to be included in the Planning Permit

Condition related to	Engineering Condition
Reinstatement of damages caused during development works	Within 2 months of the completion or by such later date as approved in writing by the Responsible Authority, any damage to Council infrastructure resulting from the development must be reinstated:
	(a) In accordance with Yarra Standard Drawings Yarra City Council
	(b) at the permit holder's cost; and(c) To the satisfaction of the Responsible Authority.

Note related to	Engineering Note
Stormwater: Site discharge	The site stormwater must be directed to the nominated legal point of discharge (LPD) and shall be limited to equivalent pre- development levels <i>or</i> 70% impervious coverage, whichever is lowest, for a 20% AEP rainfall event.
Stormwater: Onsite detention	The development must detain onsite, at a minimum, the 10% AEP storm event. For cases where a safe overland flow path cannot be provided or where flows exceeding pipe capacity may impact the development or adjacent, upstream, or downstream properties, the requirement will be to detain the 1% AEP storm event.
Redundant stormwater outlets	All redundant property drain outlets are to be demolished and reinstated to Council's satisfaction and at the Permit Holder's cost.
Service infrastructure adjustment to suit finished grades, alignments, etc.	Any service poles, structures or pits located within the public realm areas that interfere with the proposal, must be adjusted accordingly:(a) at the permit holder's cost; and(b) to the satisfaction of the Responsible Authority.

Note related to	Engineering Note
Existing parking infrastructure	No parking restriction signs, or line-marked on-street parking bays are to be removed, adjusted, changed or relocated without approval or authorisation from Council's Parking Management unit and Construction Management branch.
Private utility assets	Areas must be provided inside the property line and adjacent to the footpath to accommodate pits and meters. No private pits, boundary traps, valves or meters on Council property will be accepted.
Adjusting utility infrastructure	Any services poles, structures or pits that interfere with the proposal must be adjusted, removed or relocated at the owner's expense after seeking approval from the relevant authority.
Existing parking infrastructure	Any on-street parking reinstated as a result of development works must be approved by Council's Parking Management unit.
Parking sensors	The removal of any kerbside parking sensors and any reinstatement of parking sensors will require the Permit Holder to pay Council the cost of each parking sensor taken out from the kerb/footpath/roadway. Any costs associated with the reinstatement of road infrastructure due to the removal of the parking sensors must also be borne by the Permit Holder.

SECTION 3: Engineering Detailed Assessment

CAR PARKING PROVISION

Proposed Development

Under the provisions of Clause 52.06-5 of the Yarra Planning Scheme, the development's parking requirements are as follows:

Proposed Use	Quantity/ Size	Statutory Parking Rate*	No. of Spaces Required	No. of Spaces Allocated
Office	219.9 m ²	3.0 spaces per 100 m ² of net floor area	6	13 spaces
Place of Assembly	2,530 patrons	0.3 spaces per patron	759	
		Total	765 spaces	13 spaces

* Since the site is located within the Principal Public Transport Network Area, the parking rates in Column B of Clause 52.06-5 now apply.

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

Car Parking Demand Assessment

In reducing the number of parking spaces required for the proposed development, the Car Parking Demand Assessment would assess the following:

Parking Demand Consideration	Details
Variation of Parking Demand over Time	According to BG&E engineering consultants, the development's parking demands would vary each weekday, weekday evening, and at weekends and weekend evenings. The parking demands at various times of the week have been based on expected patron numbers, together with the statutory parking rates, and are tabulated in section 4.2.1 of the traffic engineering report. The parking demands are considered reasonable.
Availability of Public Transport in the Locality of the Land	 The following public transport services can be accessed to and from the site by foot: Church Street trams – 190 metre walk East Richmond railway station – 900 metre walk
Multi-purpose Trips within the Area	Customers and clients to the development could combine their visit by engaging in other activities or business whilst in the area.

Parking Demand Consideration	Details
Convenience of Pedestrian and Cyclist Access	The site is very well positioned in terms of pedestrian access to public transport nodes, shops, businesses and other essential facilities. The site also has good connectivity to the on- and off-road bicycle network.

Appropriateness of Providing Fewer Spaces than the Likely Parking Demand

Clause 52.06 lists a number of considerations for deciding whether the required number of spaces should be reduced. For the subject site, the following considerations are as follows:

Consideration	Details
Availability of Car Parking	BG&E have conducted on-street parking occupancy surveys of the surrounding area on Friday 5 May 2023 and Saturday 6 May between 12:00pm and 2:00pm and between 6:00pm and 9:00pm (both days). The extent of the survey area is unknown. The times of the survey are considered appropriate. An inventory of 586 to 588 publicly available parking spaces was identified. The results of the survey indicate that the peak parking occupancy occurred at 12:30pm on the Friday, with no fewer than 52 spaces vacant.
	In addition to the on-street occupancy surveys, BG&E also conducted surveys of public off-street car parks in the vicinity of the site. These surveys were conducted concurrently with the on-street parking surveys. The available number of spaces in these car parks ranged from 79 spaces to 431 spaces. The results suggest that parking is available for persons who drive to the site.
Relevant Local Policy or Incorporated Document	The proposed development is considered to be in line with the objectives contained in Council's <i>Strategic Transport Statement</i> . The site is ideally located with regard to sustainable transport alternatives and the reduced provision of on-site car parking would potentially discourage private motor vehicle ownership and use.
The Future Growth and Development of an Activity Centre	Practice Note 22 – Using the Car Parking Provisions indicates that car parking should be considered on a centre-basis rather than on a site/individual basis. This is applicable to activity centres, such as the Church Street retail precincts, where spare on-street car parking capacity would be shared amongst sites within the activity centre.

Adequacy of Car Parking

From a traffic engineering perspective, the waiver of car parking associated with the office and place of assembly uses is considered appropriate in the context of the development and the surrounding area.

The operation of the development should not adversely impact on the existing on-street parking conditions in the area.

The Engineering Referral team has no objection to the reduction in the car parking requirement for this site.

TRAFFIC IMPACT

Trip Generation

BG&E have estimated that during the AM and PM peak hours, a maximum of 13 trips would be generated in each peak hour (associated with staff parking).

The level of traffic generated by the development is considered low and should not adversely impact the traffic operation of the surrounding road network.

DEVELOPMENT LAYOUT DESIGN

Layout Design Assessment

Item	Assessment
Access Arrangements	
Development Entrance	The development would be utilising the existing basement car park entrance.
Car Parking Modules	
At-grade Parking Spaces	The dimensions of the parking spaces (2.5 metres by 5.0 metres) are non-standard.
	The columns within the basement car park are existing and therefore cannot be repositioned or modified. The clear distance between the columns is approximately 5.35 metres. The columns would impact on rear car door opening. The driver and passenger doors of a vehicle are able to open without being impacted by the columns.
	The parking bays in the existing basement car park are satisfactory, given the user type would be for long-stay employee parking.
Accessible Parking Space	The accessible parking space (as mentioned in the traffic report) and the associated shared area have not been depicted on the drawings.
Aisles	The 6.4 metre wide aisle satisfies <i>Table 2: Minimum dimensions of car parking spaces and accessways</i> of Clause 52.06-9.
Clearances to Walls	Spaces adjacent to walls have been provided with 300 mm clearances, which satisfy <i>Design standard 2.</i>
Gradients	
Ramp Grade for the first 5.0 metres inside the Property	As per existing arrangement.
Ramp Grades and Changes of Grade	
Swept Path Assessment	
Waste Collection Vehicle Entry Movements Development Entrance	The swept path diagram of a 6.4 metre long waste collection vehicle entering the development entrance and manoeuvring into the on-site loading dock is considered satisfactory.
Waste Collection Vehicle Exit Movements Development Entrance	The swept path diagram of a waste collection vehicle exiting the loading dock and development entrance is also considered satisfactory.
Vehicle Circulation Basement Car Park	The B85 design vehicle with 500 mm clearances on either side of the vehicle has been used to test a vehicle traversing the aisles.
	In this instance, the B99 design vehicle should be used (with 300 mm clearances on either side of the vehicle) as recommended in the Australian/New Zealand Standards for vehicle circulation within car parks. This swept path is to be revised using the B99 design vehicle.

Item	Assessment
Loading Activities	
Loading Arrangements	It is proposed to provide three loading facilities for the development. <u>Basement Loading Dock</u> The area set aside for loading activities in the basement car park is considered satisfactory. <u>Hargreaves Street Loading Zone</u> Hargreaves Street is a private road and there is no objection to the utilisation of the existing loading zone in this street. <u>Oddys Lane</u> The applicant proposes to provide a Loading Zone on the east side of Oddy Lane by removing public parking. Oddys Lane is a Public Highway under the control of Council. Any amendment to on-street must be approved by Council's Parking Management unit. The applicant must consult the Parking Management unit on this matter.
Loading Swept Path Assessment	The swept path diagrams for the 5.2 metre, 8.8 metre and 12.5 metre long commercial vehicles are considered satisfactory; however, a 12.5 metre vehicle using Oddys Lane is not advisable as on-street parking takes place on the west side of the street, which restricts a 12.5 metre vehicle's turning movements.

SECTION 4: Acknowledgement

Engineer: Mark Pisani

Miling Signature:

Date: 28 December 2023