

# TRAFFIC AND PARKING IMPACT ASSESSMENT FOR ALTERATIONS AND ADDITIONS FROM OFFICE USE TO WAHLBURGERS RESTAURANT AT 4 VUKO PLACE, WARRIEWOOD



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Development Type: Alterations and Additions from Office Use to Wahlburgers

Restaurant

Site Address: 4 Vuko Place, Warriewood

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#### 1 <u>INTRODUCTION</u>

*M<sup>c</sup>Laren Traffic Engineering (MTE)* was commissioned by *Planet Warriewood Pty Ltd* to provide a Traffic and Parking Impact Assessment for the Alterations and Additions from Office Use to Wahlburgers Restaurant at 4 Vuko Place, Warriewood as depicted in **Annexure A** for reference.

#### 1.1 Description and Scale of Development

The proposed development has the following characteristics relevant to traffic and parking:

- Replacing the existing Office area of 246m<sup>2</sup> NLA with a proposed Wahlburgers Restaurant of 611m<sup>2</sup> NLA (including a 32m<sup>2</sup> games room) with drive-through facilities, and a total seating of 222 seats;
- Removal of the existing Kids Gym area of 260m<sup>2</sup> NLA;
- Maintain the existing Cinema, Funfair and Restaurant uses currently within the site.

The proposed development existing vehicular access and parking layout arrangements will remain generally unchanged with the exception of the removal of 20 x 90-degree parking spaces and addition of an MRV loading bay and 3 x 45-degree reverse in spaces to accommodate the drive-through facilities of the proposed restaurant. This results in a proposed total of 164 on-site parking spaces, including seven (7) disabled spaces.

Vehicular access to the car park is provided via the two (2) existing one-way driveways from Vuko Place.

#### 1.2 State Environmental Planning Policy (Infrastructure) 2007

The proposed development does not qualify as a development with relevant size and/or capacity under *Clause 104* of the *SEPP (Infrastructure) 2007*. Accordingly, formal referral to the Transport for NSW (TfNSW) is not necessary.

The proposed development is located within the Northern Beaches Council area and is subject to their relevant planning controls.

#### 1.3 Site Description

The subject site is currently zoned as B7 - Business Park in accordance with the *Pittwater Local Environmental Plan 2014*. The site is currently occupied by the existing cinema complex which is to be altered under this proposal. The existing development is accessed via the two (2) existing one-way driveways from Vuko Place with a total of 181 car parking spaces including seven (7) disabled accessible spaces. The site has frontage to Vuko Place to the west and Pittwater Road to the east.



The site is generally surrounded by office and commercial developments, being located within a B7 Business Park zoned area, with Warriewood Business Centre and Pittwater Business Park located directly to the north and south of the site respectively. Additionally, there is an existing sewerage treatment plant opposite the complex which extends the full length of Vuko Place. The nearest residential developments from the site are located along the northern side of Warriewood Road and to the eastern side of Pittwater Road.

#### 1.4 Site Context

The location of the site is shown on aerial imagery and a map in **Figure 1** & **Figure 2** respectively.





FIGURE 1: SITE CONTEXT - AERIAL PHOTO



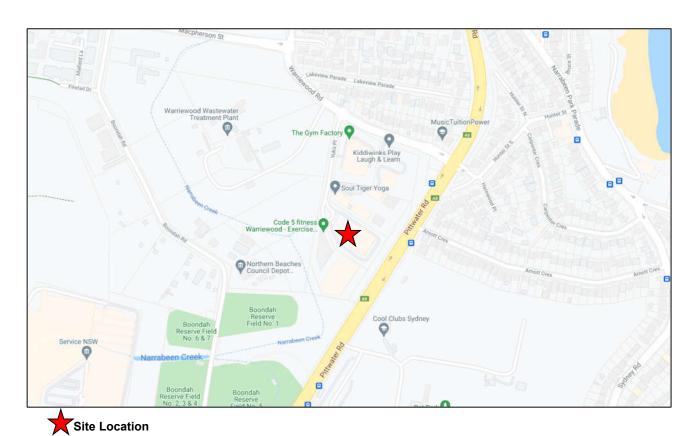


FIGURE 2: SITE CONTEXT - STREET MAP



#### 2 COMPARISON OF EXISTING AND PROPOSED DEVELOPMENTS

A comparison between the existing and proposed developments, and their scales is provided in **Table 1**.

TABLE 1: COMPARISION OF EXISTING AND PROPOSED DEVELOPMENT

Land Use	Existing Development Scale	Proposed Development Scale	Net Change		
Cinema	1867 seats	1867 seats	-		
Restaurant	451m <sup>2</sup> NLA	451m <sup>2</sup> NLA	-		
Funfair	376m <sup>2</sup> NLA	376m <sup>2</sup> NLA	-		
Kids Gym	260m <sup>2</sup> NLA	-	- 260m <sup>2</sup> NLA		
Drive-through Restaurant (Wahlburgers)		611m <sup>2</sup> NLA	+ 611m² NLA		
Office	246m <sup>2</sup> NLA	-	- 246m² NLA		
Car Parking	<b>181</b> car parking spaces including seven ( <b>7</b> ) disabled car parking spaces	164 carparking spaces, including seven (7) disabled spaces	-17 car parking spaces		



#### 3 EXISTING TRAFFIC AND PARKING CONDITIONS

#### 3.1 Road Hierarchy

The existing road network has the following characteristics within close proximity to the site:

#### Vuko Place

- Unclassified LOCAL Road;
- Approximately 13m in width facilitating one traffic-flow lane is each direction and kerbside parking on both sides of the road. The carriageway is separated by a median within the carriageway cul-de-sac located at the site's frontage with the road;
- No speed limit sign-posted, 50km/h applies;
- Generally unrestricted kerbside parking available along both sides of the road except for a signposted restricted section of "No Stopping" located along the eastern side of the road.

#### Warriewood Road

- Unclassified COLLECTOR Road;
- To the east of the intersection with Vuko Place, the carriageway is approximately 13m in width facilitating one traffic flow lane in each direction with kerbside parking available on both sides of the road;
- To the west of the intersection with Vuko Place, the carriageway is approximately 11m in width facilitating one traffic flow lane in each direction and a linemarked median. No kerbside parking is available;
- Signposted 50km/h speed limit.

#### Pittwater Road

- Classified STATE Road (No. 164);
- Approximately 23m in width facilitating three traffic flow lanes (including one bus lane) in each direction and a median of approximately 3m in width. The southbound bus lane is restricted to bus use between 6am 10am Monday Friday, whilst the northbound bus lane is restricted to bus use between 3pm 7pm Monday to Friday;
- Signposted 70km/hr speed limit;
- No kerbside parking permitted.



#### 3.2 Existing Traffic Management

- Roundabout controlled intersection of Vuko Place and Warriewood Road;
- Signalised intersection of Warriewood Road and Pittwater Road.

#### 3.3 Public Transport

The subject site has access to existing bus stop (ID: 210211) located approximately 470m walking distance to the north of the site on Pittwater Road near the intersection with Warriewood Road. This bus stop services existing bus Routes 190X (Avalon Beach to City Wynyard [Express Service]) and 199 (Palm Beach to Manly via Mona Vale & Dee Why) provided by State Transit. A bus service departs every 10 minutes in commuter peak periods for both bus Routes.

The Warriewood B-Line Transport Hub (ID:210120) is located approximately 1.1km walking distance (or 380m as the crow flies) to the south of the site on Pittwater Road near the intersection with Jacksons Road. The B-line bus service which operates through this stop provides connection between Mona Vale and City Wynyard with a service departing every 10 minutes.

The subject site is located within a Keoride On-Demand service area which provides first and last mile connections from Palm Beach to North Narrabeen to bus stops on the Northern Beaches B-Line using GoGet passenger cars. That is, it is a public transport service that will pick passengers up from either home, a designated pick-up point or the nearest bus stop and take them directly to the closest Northern Beaches B-Line transport hub at Narrabeen, Warriewood or Mona Vale. These Keoride services are operated by Keolis Downer.

The location of the site is shown on a local public transport network map in **Figure 3** and **Figure 4** below.





**Site Location** 

FIGURE 3: PUBLIC TRANSPORT MAP (INSET MAP)





FIGURE 4: PUBLIC TRANSPORT MAP (MAIN MAP)

#### 3.4 Future Road and Infrastructure Upgrades

The Northern Beaches Council's Capital Works Program Map 2021-2022 indicates that the nearby intersection of Warriewood Road / Pittwater Road will undergo intersection improvements with work starting July 2021, with completion by June 2022. No further information was able to be found within the Northern Beaches Council website. In any case, improvements to the intersection may result in some short-term impacts to traffic in the surrounding area due to the construction works. However, once completed, it can be expected that the traffic conditions near the subject site would be improved following the works.

From the Northern Beaches Council Development Application tracker, and website, it appears that there are no other future planned road or public transport changes that will affect traffic conditions within the immediate vicinity of the subject site.



#### 4 PARKING ASSESSMENT

#### 4.1 Existing Car Parking Demand

Whilst the *Pittwater 21 Development Control Plan* (DCP) does provide rates of car parking requirements for some of the uses on the site, neither the *Pittwater 21 DCP* nor the *RMS Guide to Traffic Generating Development* provide parking rates for cinemas, which is the primary parking demand land use of the site. As such, analysis from surveys of the existing development will be undertaken to accurately assess the parking required.

Parking surveys of the existing Warriewood Cinema Complex were undertaken over three surveyed days in 2016 (with results shown in **Annexure B** for reference). From these surveys, the parking demand showed consistent rates compared to the daily ticket sales of 1 space per 7.65 daily tickets with an R<sup>2</sup> value of 0.98 which is evidence of a very strong correlation. The 85<sup>th</sup> percentile occupancy of the cinema is considered the design occupancy, consistent with the RMS guide and standard traffic engineering practice. The previous six months of <u>daily ticket sales</u> prior to these surveys (July 2015 - December 2015) for Fridays and Saturdays were collected with the 85<sup>th</sup> percentiles for Friday being 1222 and Saturday being 1617. The peak operational periods on both Fridays and Saturdays were during the evenings.

It is important to note that these surveys were undertaken in 2016 at a time when streaming services (such as Netflix) were not operating as popular as they have been in the past few years, with these services now providing possible cinema customers with an alternative option for watching blockbuster movies, which can release directly to these services. The COVID-19 pandemic has caused significant impacts upon the typical behaviour of cinema customers, such that undertaking updated cinema surveys to assess any possible impact would not provide reliable results. We have been advised by the operator of the cinema that the rise of streaming services has reduced the customer demand for their existing cinemas by 25% since 2015 / 2016.

If this 25% reduction is applied to the surveyed daily ticket sales from 2015 / 2016, then the estimated 85<sup>th</sup> percentile daily ticket sales for 2021 would be 917 for Fridays and 1213 for Saturdays. Accordingly, the estimated 85<sup>th</sup> percentile parking demand for the existing cinema in 2021 is 120 spaces on Fridays and 159 spaces on Saturdays.

These updated figures are based upon the surveyed cinema which included 1920 seats. The existing cinema on site has since been modified such that a total of 1867 seats are currently provided within the cinemas.

It is important to note that these existing surveys included the parking demand of all land uses on the existing site, and not just the cinema use.



#### 4.2 Future Car Parking Demand

#### 4.2.1 Council's DCP Parking Requirements

Reference is made to *Pittwater 21 Development Control Plan (DCP), Section B6 Access and Parking* which outlines the applicable parking rates for various development land uses within *Section B6.3 Off-Street Vehicle Parking Requirements TABLE 1: Onsite Car Parking requirements.* 

#### Food and Drink Premises with drive through/drive in component.

Where the site has a frontage to a main or arterial road:

not less than 30 spaces.

Where the site has a frontage to any other road:

 spaces are to be provided in accordance with the Roads and Maritime Services Guide to Traffic Generating Development.

Whilst the proposed development is located in close proximity to the arterial road of Pittwater Road, located to the east of the site, the proposed development does not have a frontage to this road. In accordance with Council's DCP requirements, the parking requirements for the proposed restaurant with drive-through component will be subject to the parking requirements detailed within the *Transport for NSW* (TfNSW) (formerly RMS) *Guide to Traffic Generating Developments (October 2002)* (Guide).

#### 4.2.2 TfNSW Parking Requirement

Reference is made to the TFNSW Guide, which states the following parking rates relevant to drive-through restaurant developments:

#### Parking.

The recommended number of off-street parking spaces for drive-in takeaway food outlets is:

> developments with no on-site seating or no drive-through facilities:

> > 12 spaces per 100m<sup>2</sup> GFA.

 developments with on-site seating but no drive through facilities:

12 spaces per 100m<sup>2</sup> GFA, or the greater of.

1 space per 5 seats (both internal and external seating), or.

1 space per 2 seats (internal seating).

 developments with on-site seating and drive-through facilities greater of.



1 space per 2 seats (internal), or.

1 space per 3 seats (internal and external).

In addition to this, an exclusive area for queuing of cars for a drive through facility is required (queue length of 5 to 12 cars measured from pick up point; see below for details). There should also be a minimum of four car spaces for cars queued from ordering point.

As the proposed drive-through restaurant includes both on-site seating and drive through facilities, the greater of the two rates of 1 space per 2 seats (internal), or 1 space per 3 seats (internal and external) would apply to the proposed development.

However, these rates from the TfNSW Guide are based upon data gathered from M<sup>C</sup>Donalds and KFC developments from surveys undertaken in 1990. The operator of the site has advised that the proposed Wahlburgers is expected to operate similar to a drive-through Oporto or Guzman Y Gomez, rather than a development such as a M<sup>C</sup>Donalds or KFC which tend to have a higher demand of parking. As such, use of this parking rate is not considered likely to reflect the expected parking demand of the site, and it is noted that the data from the surveys is at least 31 years old.

Instead, the use of more recent and relevant data is considered necessary for reliable results.

#### 4.2.3 <u>Bitzios 2016 Oporto Survey Data for Transport for NSW</u>

Reference is made to Bitzios Consulting's *Trip Generation and Parking Demand Surveys of Fast Food Outlets Data Report For Roads and Maritime Services NSW*, dated 13<sup>th</sup> September 2016, which includes data as a result of numerous surveys undertaken of drivethrough fast food restaurants. The undertaken surveys by Bitzios Consulting included surveys of two (2) Oporto drive-through developments undertaken in March 2016. As such, these surveys are considered to be more appropriate to use for the proposed development.

Through deriving the surveyed peak parking demand of these restaurants and the number of seats, a more appropriate rate of parking based on the number of seats is considered to be: 1 parking space per 4 seats.

The proposed Wahlburgers drive-through development is expected to provide 222 seats as detailed on the provided plans in **Annexure A**. It is noted that the games area is considered to be ancillary to the rest of the development and no seats are detailed in this designated area.

#### 4.2.4 Removal of existing Office Use

With consideration for the existing office use, the peak parking demand associated with the cinema (and hence the wider site) was surveyed to occur either on weekday evenings (after 6pm) or on Weekends, which are both periods where the existing office use would have not been operating. As such, no parking demand discounts will be applied from the existing parking demand when assessing the proposed developments parking demand.



#### 4.2.5 Removal of existing Kids Gym Play areas

In terms of parking demand, kids gym areas are each unique land uses with the primary affecting factors being proximity to complimentary land uses, patronage of each unique isolated activity such as children's playground and acrobatic trampolines, and their proximity to public transport. They are considered to behave similar to amusement centres, such as the existing Funfair development on the site, with a high number of children using the land use and a high proportion of dual use with other uses.

For the purpose of assessment, comparison is drawn to a larger amusement centre development at Salisbury Road, Asquith which is in the Hornsby LGA and was approved on the basis of the study completed by Lyle Marshall & Associates Pty Ltd (LMA) in November 2010 (relevant extracts reproduced in **Annexure C**). That study found an amusement centre of 1,576sqm GFA, including laser skirmish, generates weekend demand of 53 parking spaces (1 per 29.7sqm GFA) for staff and patrons, including approximately 60 parents, 90 children and 8 staff. Evening parking demand was found to be less than 32 spaces or 60% of peak trade (1 space per 49.3sqm). Scaling these figures to the existing Kids Gym tenancy of 260sqm NLA, the isolated demand is expected to be 8.8 spaces on weekends and 5.3 spaces for evenings.

- Weekday Evening Demand 1 space per 49.3sqm GFA (5.3 spaces)
- Weekend Midday Demand 1 space per 29.7sqm GFA (8.8 spaces)

However, it is important to note that the existing kids gym currently acts as ancillary to the cinema uses and is unlikely to generate additional parking demand above the cinema. That is, it is considered unlikely that parents will travel with their children to the site at 4 Vuko Place for the sole purpose of travelling to the existing amusement centre uses. Therefore, it will be assumed that the existing centre currently generates no parking demand above the cinema parking demand. That is, no parking demand discounts will be applied from the existing parking demand when assessing the proposed developments parking demand.

#### 4.2.6 Summary of Car Parking Required

The car parking spaces required for both the existing and proposed developments from the above assessment is summarised in **Table 2**.



TABLE 2: ESTIMATED PROPOSED SATURDAY CAR PARKING DEMAND

Land Uses	Scale	Source of required parking	Peak Parking Demand	On-site Parking Provided	
Existing Cinema Use	1867 seats	Existing surveys of development	159 x (1867/1920)	154.4	164
Drive Through Restaurant <sup>(1)</sup>	222 total seats	Bitzios 2016 <sup>(1)</sup>	1 per 4 seats (total internal and external) <sup>(1)</sup>	55.5	104
Total				209.9 (210)	164

#### Notes:

As shown in **Table 2**, the site of the proposed drive-through restaurant is required to accommodate a total parking demand of **210** car parking spaces in accordance with existing surveys of the site, and rates derived from 2016 Bitzios surveys for drive-through restaurants. The proposed development provides **164** car parking spaces representing a numerical shortfall of 46 spaces for the surveys and TfNSW requirements.

Justification for this parking shortfall is provided in the following section.

#### 4.3 Justification for Parking Shortfall

#### 4.3.1 Varying Times of Peak Parking Demand

The parking requirements assessed for both the existing cinema use and proposed drive-through restaurant assume that the peak parking demand for both uses will occur at the same time. This is unlikely to occur in practice. Indeed, the TfNSW Guide notes for shopping centres and alike that "When it can be demonstrated that the time of peak demand for parking associated with the proposed shopping centre and the adjacent land uses do not coincide, or where common usage reduced total demand, a lower level of parking provision may be acceptable".

Common usage, or dual use, of the site was surveyed in 2016 and found after 5pm that 18% of cinema patrons also utilised the existing restaurant/bar on the site (data reproduced in **Annexure C**). The restaurant/bar peak patronage occurred prior to peak parking demand for the site and not more than 50% occupancy of the restaurant overlapped with the peak cinema use. While patrons will park for longer, this only increases demand prior to the peak as shown in **Figure 5**. Both of these details can be expected to apply to the site concurrently. That is, the peak demand of the restaurant use during the site peak can be expected to be 50% of the peak restaurant demand and 18% of those present at the restaurant could be expected to attend the cinema.

<sup>(1)</sup> Derived from Bitzios 2016 *Trip Generation and Parking Demand Surveys Of Fast Food Outlets Data Report* for an Oporto drive-through.



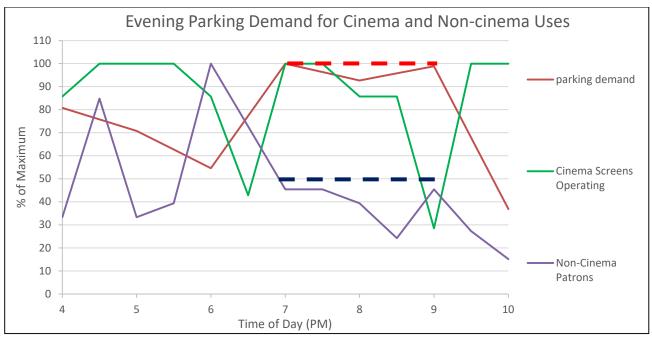


FIGURE 5: EVENING PARKING DEMAND FOR CINEMA AND NON-CINEMA USES

For the purposes of this assessment, a reduction of 50% only will be applied to the proposed restaurant use to reflect the expected peak demand of the restaurant during the site peak, with possible dual usage between the restaurant and cinema not factored. Accordingly, the peak parking demand of the restaurant during the site peak can be expected to be:

• Restaurant demand during site peak = 50% of 55.5 spaces = 27.75 spaces

An updated estimation of peak parking demand for the wider site is summarised in **Table 3**.

TABLE 3: ESTIMATED SATURDAY CAR PARKING DEMAND DURING SITE PEAK

Land Uses	Scale	Source of required parking	Peak Parking Demand	On-site Parking Provided	
Existing Cinema Use	1867 seats	Existing surveys of development	159 x (1867/1920)	154.4	164
Drive Through Restaurant <sup>(1)</sup>	191 total seats	Bitzios 2016 <sup>(1)</sup>	50% of 1 per 4 seats (total internal and external) <sup>(1)</sup>	27.75	104
Total				182.15 (182)	164

#### Notes:

As shown in **Table 3**, the site of the proposed drive-through restaurant is expected to operate with an 85<sup>th</sup> percentile peak parking demand of **182** car parking spaces in accordance with existing surveys of the site, and TfNSW rates for drive-through restaurants. The proposed development provides **164** car parking spaces representing a numerical shortfall of **18** spaces for the surveys and TfNSW requirements.

<sup>(1)</sup> Derived from Bitzios 2016 *Trip Generation and Parking Demand Surveys Of Fast Food Outlets Data Report* for an Oporto drive-through



#### 4.3.2 On Street Parking Availability

During the undertaken car parking surveys in 2016, there was surveyed to be a total of 54 unrestricted kerbside car parking spaces along Vuko Place. As previously noted, the surveys conducted during this time were undertaken when streaming services were not yet as popular as they are now, and the typical behaviour of cinema customers has likely changed since this period. However, they may be useful for comparison. As indicated in the survey results in **Annexure B**, the surveys conducted on Friday 8<sup>th</sup> January 2016 corresponded with a day where the total daily ticket sales were 1271. As per **Section 4.1**, the expected 85<sup>th</sup> percentile demand for the proposed development in the current day (if COVID-19 was not impacting the use of cinemas) reflects a total daily ticket sales of 1213, which is comparable to that of the Friday surveys.

A summary of these Friday 8<sup>th</sup> January 2016 parking surveys is provided in **Table 4**.

TABLE 4: 8TH JANUARY 2016 PARKING SURVEYS

		Peak Parking Demand <sup>(1)</sup>							
Area Surveyed	Total Capacity	Time of peak	Peak Parking Demand	Minimum capacity (total - demand)					
On-site	188 <sup>(2)</sup>	9:00pm to 9:30pm	161 (86%)	27 (14%)					
East Side of Vuko Place	20	5:00pm to 5:30pm	5 (25%)	15 (75%)					
West Side of Vuko Place	34	10:00pm to 10:30pm	13 (38%)	21 (62%)					
Total (on-site plus on-street)	242	9:00pm to	175 (72%)	67 (28%)					
Total On-Street during peak	54	9:30pm	14 (26%)	40 (74%)					

#### Note:

As shown in **Table 4**, the peak on-site parking demand of **161** occupied car spaces surveyed to occur is comparable to the expected 85<sup>th</sup> percentile peak parking demand of the existing cinema uses (as per **Section 4.1**) of 154 spaces (rounded from 154.4). During the surveyed on-site peak, there was surveyed to be **14** cars parked along Vuko Place, reflecting an available capacity of 74% of the 54 spaces available on-street.

It is considered reasonable to utilise this surveyed on-street car parking demand of 14 spaces with consideration for the expected 85<sup>th</sup> percentile parking demand of the site, including 155 spaces for the proposed cinema uses.

<sup>(1)</sup> The peak parking demand for each area indicates the maximum quantity of parking that was surveyed to occur in that area at any time. The total parking demands reflect the maximum quantity of parking surveyed across all areas surveyed to occur, regardless of it was the peak for that area or not.

<sup>(2) 188</sup> spaces is the surveyed parking capacity determined by the independent parking surveyor. However, from a more recent assessment by the applicant, the existing on-site car parking provision was determined as 181 spaces



This low use of the existing on-street spaces during this time can be at least partially attributed to the land uses surrounding the site. The buildings surrounding the site are typically occupied by commercial / business premises, and fitness / gymnasium uses. Both these uses typically operate or have their peak operational periods outside of those of the cinema's peak operation periods. As such, a large proportion of on-street parking will likely be available for use during the periods of peak parking demand for the site.

As per **Table 3**, the proposed development is expected to operate with a numerical shortfall of 18 car parking spaces on site. Accordingly, this overspill of parking demand would lead drivers to utilise the available on-street parking.

The addition of 18 cars parked on Vuko Place would result in a total on street car parking demand of 32 parked cars during the site peak. This would still leave an available on-street capacity of 41% of spaces for use by other surrounding uses. As the 85<sup>th</sup> percentile peak parking demand of the proposed development will not have an adverse impact on the on-street parking availability, the on-site parking provision for the proposed development is considered acceptable.

#### 4.4 Drive Through Queueing Assessment

Reference is made to TFNSW Guide, which states the following relevant to the drive-through queueing areas of drive-through restaurant developments:

#### Parking.

The recommended number of off-street parking spaces for drive-in take-away food outlets is:

...In addition to this, an exclusive area for queuing of cars for a drive through facility is required (queue length of 5 to 12 cars measured from pick up point; see below for details). There should also be a minimum of four car spaces for cars queued from ordering point.

#### Drive through facility.

The following stipulations apply to outlets incorporating a drivethrough service:

**McDonalds:** The drive through capacity should be 10 car lengths. However the queue must be able to extend to 12 car lengths without unreasonably disrupting car parking operations or extending onto the street for restaurants with single booths or potential high turnover.

Kentucky Fried Chicken: A drive through capacity of 6 car lengths should be provided. This requirement could be reduced to 5 car lengths for restaurants with low potential turnover. However, the queue must be able to extend to 8 car lengths without unreasonably



disrupting car parking operations or extending onto the street for restaurants with single booths or potential high turnover.

As the proposed Wahlburgers development represents the first of its kind in Australia, it is difficult to predict how the proposed development will operate in terms of drive-through demand and how quickly drive-through customers would be served. The operator of the site has advised that the proposed Wahlburgers is expected to operate similar to a drive-though Oporto or Guzman Y Gomez, rather than a development such as a M<sup>C</sup>Donalds or KFC which tend to have a higher demand of drive-through traffic.

In any case, for the purposes of this assessment the queueing volumes of the development will be considered similar to that of a KFC. In accordance with *Section 3.4* of *AS2890.1:2004*, a queue length of 6m per vehicle will be assessed. To account for the bends in the drivethrough swept path vehicles can be shown along the drive through. In accordance with *Figure B2* of *AS2890.1:2004*, t is noted that a B85 has a length of 4.91m. Therefore, a length of 1.1m left between B85 vehicles for queueing would adequately reflect the effective queueing capacity of the drive-through.

As shown in **Figure 6**, the proposed drive-through has a capacity of nine (**9**) queued vehicles from the pick-up point or a queue length of three (**3**) vehicles from the order point before extending into the internal parking aisle of the site. The drive through capacity of nine (**9**) queued vehicles exceeds all minimum requirements from the TfNSW Guide for the drive-through capacity of a KFC, including that of the "8 car lengths without unreasonably disrupting car parking operations or extending onto the street for restaurants with single booths or potential high turnover."

Whilst the available queue length of three (3) queued vehicles before extending into the internal parking aisle does fall short of the TfNSW recommendation that: "There should also be a minimum of four car spaces for cars queued from ordering point", it is important to note that this is only a recommendation, and not a strict requirement. As such, consideration for the context of the site and the proposed use must be appropriately undertaken.

As previously referred to, the proposed Wahlburgers development is considered likely to be a drive-through development with a lower turnover than that of a M<sup>C</sup>Donalds or KFC development which the TfNSW Guide recommendation was based upon, such that the queue lengths of the proposed development will likely be shorter in practice. Additionally, if the queue length were to extend into the internal parking aisle of the site, the parking aisle has a width of 5.97m which is sufficient for a car circulating the site to be able to pass a vehicle queued for the drive-through. The site is predominately used by cinema customers such that the turnover of parking within the site will be lower, and hence the frequency of vehicles circulating the parking area will be lower than that of other retail or shopping developments where drive-throughs are typically located. As such, any impacts resulting from the queueing of vehicles into the parking aisle of the site are expected to be minimal.



There is no risk of the queue from the drive-through extending into the public road reserve of Vuko Place, with an available queueing distance of approximately 58m (or nine (9) cars) available from the ordering point. This total doesn't factor the additional drive through capacity of six (6) vehicles that could be queued from the pay point to the order point. As such, the proposed queueing facilities of the drive-through development are considered acceptable.

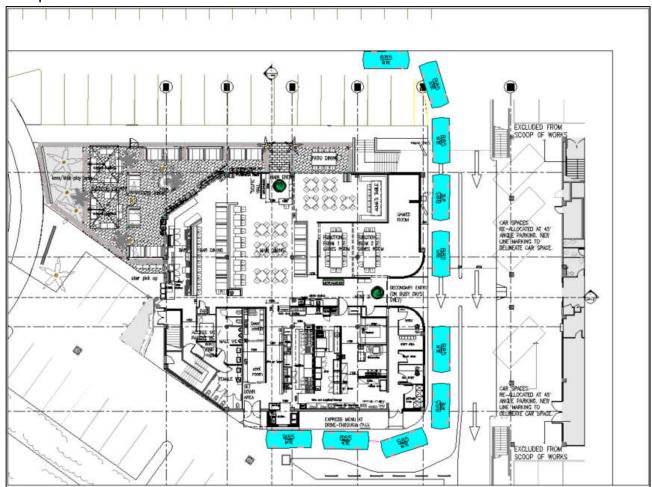


FIGURE 6: DRIVE-THROUGH CAPACITY OF WAHLBURGERS

#### 4.5 Bicycle Storage Requirements

Reference is made to *Pittwater 21 Development Control Plan, Section B6 Access and Parking* which outlines the following bicycle parking requirements which are relevant for the proposed change of use:

For Business/Industrial development or additions, comprising of 200m<sup>2</sup> GFA or more, secure enclosed bicycle storage facilities must be provided within the building at the rate of 1 bicycle rack per 1000m<sup>2</sup> GFA, or a minimum of 4 bicycle racks, whichever is the greater.

The proposed development results in a minimal change in GFA from the existing development with a proposed increase of 74m<sup>2</sup> GFA to a total of 1,406m<sup>2</sup> GFA. A total GFA of 1,406m<sup>2</sup> requires a minimum bicycle parking provision of 4 bicycle racks, in accordance with the DCP requirements.



The previously approved bicycle space provision and facilities for the proposed development are proposed to remain unchanged, with a bicycle provision of five (5) spaces, which satisfies Councils DCP requirement. Therefore, the bicycle space provision of five (5) spaces for the proposed development is considered acceptable.

#### 4.6 Motorcycle Parking Requirements

Reference is made to *Pittwater 21 Development Control Plan, Section B6 Access and Parking* which outlines the following motorcycle parking requirements which are relevant for the proposed change of use:

Motor Cycle Parking

For Business/Industrial development or additions, comprising of 200m<sup>2</sup> GFA or more, provision is to be made for motor cycle parking at a rate of 1 motor cycle parking space per 100 motor vehicle spaces.

Given that there is only a proposed <u>reduction</u> in on-site car parking provision from the previously approved car parking spaces, the previous approval for a provision of nil (0) motorcycle spaces is considered to remain applicable. Therefore, the existing motorcycle space provision of nil (0) spaces for the development is considered acceptable.

#### 4.7 Disabled Parking

The *Pittwater 21 Development Control Plan* does not outline disabled parking provision rates for cinema developments. As a result, disabled parking is required to be provided in accordance with the *Building Code of Australia* (BCA). A cinema is a Class 9b building under the BCA and as such requires 1 space for every 50 carparking spaces or part thereof to be a disabled accessible space.

Based upon the above rate, the proposed site car parking provision of 164 spaces requires the provision of four (4) disabled parking spaces. The existing site provides a total of seven (7) disabled car parking spaces, resulting in compliance with the BCA.

It is relevant to note that the provision of seven (7) disabled car parking spaces would have been certified and approved under the original consent condition and it is envisaged that they are designed to be acceptable for use by a disabled user.

#### 4.8 Servicing & Loading

The *Pittwater 21 Development Control Plan* does not outline specific rates of parking required for service vehicles for drive-through restaurant developments but instead states that *Adequate space for delivery vehicles and garbage collection is to be provided*. The proposed development includes the proposed addition of a service bay able to be utilised by vehicles up to and including an 8.8m long Medium Rigid Vehicle (MRV).



It is considered that MRV sized vehicles or smaller will be suitable to service all aspects of the site including loading and waste collection. The proposed service bay will be shared amongst all land uses of the site and can be managed under an internal Plan of Management if neccessary. Waste of the site will be collected via the proposed service bay by a private contractor.

#### 4.9 Car Park Design & Compliance

The proposed alterations to the car parking layout and additional drive-through as depicted in **Annexure A**, have been assessed to achieve the relevant clauses and objectives of *AS2890.1:2004* and *AS2890.2:2018*. Swept Path Testing has been undertaken with results reproduced within **Annexure E** for reference.

The proposed alterations to the car park design achieves the following:

- Minimum 3.3m single lane width between kerbs along the drive-through;
- Minimum 2.5m width x 5.4m length 45-degree reverse in only parking spaces;
- Minimum 3.5m width x 8.8m MRV loading bay;

Whilst the plans have been assessed to comply with the relevant standards, it is usual and expected that a design certificate be required at the Construction Certificate stage to account for any changes following the development application.

There is no proposed change to the remaining areas of the car parking and access driveway. As such, the design and construction of these unchanged areas has not been assessed. It is envisaged that the ongoing use of the at-grade car park would be compliant under the previous design and certification.



#### 5 TRAFFIC ASSESSMENT

The impact of the expected traffic generation levels associated with the subject proposal is discussed in the following sub-sections.

#### 5.1 Traffic Generation

#### 5.1.1 TfNSW Guide to Traffic Generating Developments 2002

Traffic generation rates for the relevant land uses are provided in the Transport for NSW (TfNSW) *Guide to Traffic Generating Developments October 2002* (Guide) and recent supplements. The TfNSW Guide provides traffic generation rates for either a M<sup>c</sup>Donalds or a KFC drive-through restaurant.

As the proposed Wahlburgers development represents the first of its kind in Australia, it is difficult to predict the volume of traffic generated by proposed development. The operator of the site has advised that the proposed Wahlburgers is expected to operate similar to a drive-through Oporto or Guzman Y Gomez, rather than a development such as a M<sup>C</sup>Donalds or KFC which tend to have a higher traffic demand. In any case, for the purposes of this assessment the traffic generation volumes of the development will be considered similar to that of a KFC. The TfNSW Guide traffic generation rates for a KFC drive-through development are quoted below:

#### 3.7 Refreshments.

#### 3.7.1 Drive-in take away food outlets

Rates - Kentucky Fried Chicken.

Evening peak hour vehicle trips:

- assume 100 veh/hr for average development (mean of survey results).
- for sensitivity test, assess effect of 120 veh/hr (maximum of survey results).

#### Factors.

...The proportion of passing trade is typically at least 50%. This discount should be taken into account in assessing external traffic impact.

As per the above TfNSW Guide rates, the proposed Wahlburgers development could be expected to have a peak traffic volumes of 120 vehicle trips to/from the site (60 in; 60 out). However, this is not how many additional traffic trips the proposed development will generate on the surrounding road network. As per the above quote, a minimum of 50% of this 120 vehicle trips is expected to be as a result of passing trade, which is drivers already passing by the site on their way to another destination stopping into the proposed development along the way. As such, these trips are existing within the surrounding road network.



Accordingly, up to 60 additional vehicle peak hour vehicle trips could be expected to be generated by the proposed development, which is equivalent to one vehicle trip every minute.

#### 5.1.2 <u>Draft TfNSW Guide to Transport Impact Assessments 2018</u>

Transport for NSW released a Draft document titled *Guide to Transport Impact Assessments V5.1* in 2018, which was intended to supersede the 2002 TfNSW Guide with the inclusion of updated survey data.

It is important to note that this Draft document has not yet been implemented or released as a Final document. Regardless, this document includes the details of updated drive-through restaurant traffic generation data from surveys undertaken in 2013, such that it is considered reasonable that these rates at least be used as a comparison. The Draft TfNSW Guide 2018 states the following conclusion from this survey data:

#### 6.6 Food service establishments

#### 6.6.1 Fast food outlets

Notes

- However, analysis recommended baseline vehicle trip generation rates for PM network peak hour and proportions of passing trade in each type of fast food outlet surveyed:
  - o McDonalds 183 trips | 51% passing trade
  - KFC 73 trips | 43% passing trade
  - Hungry Jacks 61 trips | 54% passing trade
  - Oporto 41 trips | insufficient data
  - Red Rooster 35 trips | 51% passing trade

As per the above rates, it is clear that the updated traffic surveys of KFC developments indicated a lower traffic generation of 73 trips, compared to that of the 2002 TfNSW Guide rates of 120 trips.

Additionally, it is noted that two (2) Oporto drive-through developments were surveyed as part of the updated surveys, which the Wahlburgers development is expected to operate similar to. These surveys indicated a peak hour traffic generation of 41 trips with insufficient data to determine a percentage of passing trade. With comparison to the other drive-through types, the passing trade percentages approximately average 50% of trips. If a similar passing trade is applied to the Oporto development, this indicates that an Oporto drive-through development (or a comparable Wahlburgers development) may generate an additional 21 trips on the surrounding road network. This equates to one vehicle trips every three minutes, which is a low volume of additional traffic on the surrounding road network.



#### 5.2 Traffic Impact

At the time of writing this report, the COVID-19 pandemic is causing significant impact to the typical behaviour of drivers, particularly as there is a lockdown within the Greater Sydney area which limits the volumes of traffic within the surrounding area. As such, any surveys undertaken of existing intersection movements during this time would not reflect the typical conditions or performance of these intersections. As such, no intersection counts have been undertaken to assess the intersection performance.

The subject site is located in close proximity to the State Classified Road of Pittwater Road which is readily accessible from the subject site via the intersection of Warriewood Road / Pittwater Road. From the Transport for NSW *Traffic Volume Viewer* website, there is a survey station (ID: 55028) located approximately 1.8km to the south of the Warriewood Road / Pittwater Road intersection. In the absence of intersection counts, it is considered reasonable that the traffic volume surveyed by this station in 2019 (prior to COVID-19 impacts) will provide a reasonable indication of traffic volumes for a first principles assessment.

During the Pittwater Road 2019 PM network peak hour period (4pm-5pm), the two-way traffic volumes along Pittwater Road was 4,435 trips. Through utilising the 2002 TfNSW Guide KFC traffic generation of 60 trips, if this were to be applied solely to the intersection of Warriewood Road / Pittwater Road this would represent an increase of 1.35% of traffic volumes. This is a low proportion of additional vehicle trips that will likely be within the daily variations of the intersection. As per the Oporto surveys from the 2018 TfNSW Guide, the volume of additional traffic generated by the proposed Wahlburgers is likely to be less than this.

With consideration for the above, it is likely that the traffic generation of the proposed development will not result in any adverse impacts to the surrounding road network.



#### 6 **CONCLUSION**

The following outcomes of this traffic and parking impact assessment are relevant to note:

- a) In accordance with the undertaken parking surveys of the site and parking rates derived from 2016 Bitzios surveys, the proposed development is expected to operate with an 85th percentile peak parking demand of 210 car parking spaces, with a proposed on-site provision of 164 spaces, representing a numerical shortfall of 46 spaces.
  - Once consideration for varying peak parking demand times are considered, the proposed development would operate with a overspill of some 18 parking spaces onto on-street parking. The undertaken on-street parking surveys indicate a high availability of on-street parking during the peak demand period of the site, and the estimated peak overspill of site parking will not have an adverse impact on the on-street parking availability. Therefore, the on-site parking provision for the proposed development is considered acceptable.
- b) The proposed drive-through facility provides a drive-through capacity of nine (9) queued vehicles before extending into the internal parking aisle. This exceeds all minimum requirements from the TfNSW Guide for the drive-through capacity of a KFC, where the proposed Wahlburgers is expected to operate with a lower drive-through demand than a typical KFC development. There is no risk of the queue from the drive-through extending into the road, with an available queueing distance of approximately 58m (or nine (9) cars) available from the ordering point. As such, the proposed queueing facilities of the drive-through development are considered acceptable.
- c) Due to the proposed minimal changes to the existing GFA and car parking layout, the existing and previously approved bicycle and motorcycle facilities are proposed to remain unchanged.
- d) Based upon the BCA the proposed development requires four (4) disabled car parking spaces. Both the existing and proposed car parking layouts provide seven (7) disabled spaces, exceeding the BCA disabled car parking requirement.
- e) The proposed alterations to the car parking layout and additional drive-through have been assessed to achieve the relevant clauses and objectives of AS2890.1:2004 and AS2890.2:2018. The design and construction of these unchanged areas has not been assessed. It is envisaged that the ongoing use of the at-grade car park would be compliant under the previous design and certification. Whilst the plans have been assessed to comply with the relevant standards, it is usual and expected that a design certificate be required at the Construction Certificate stage to account for any changes following the development application.
- f) The proposed development includes the proposed addition of a service bay able to be utilised by vehicles up to and including an 8.8m long Medium Rigid Vehicle (MRV).



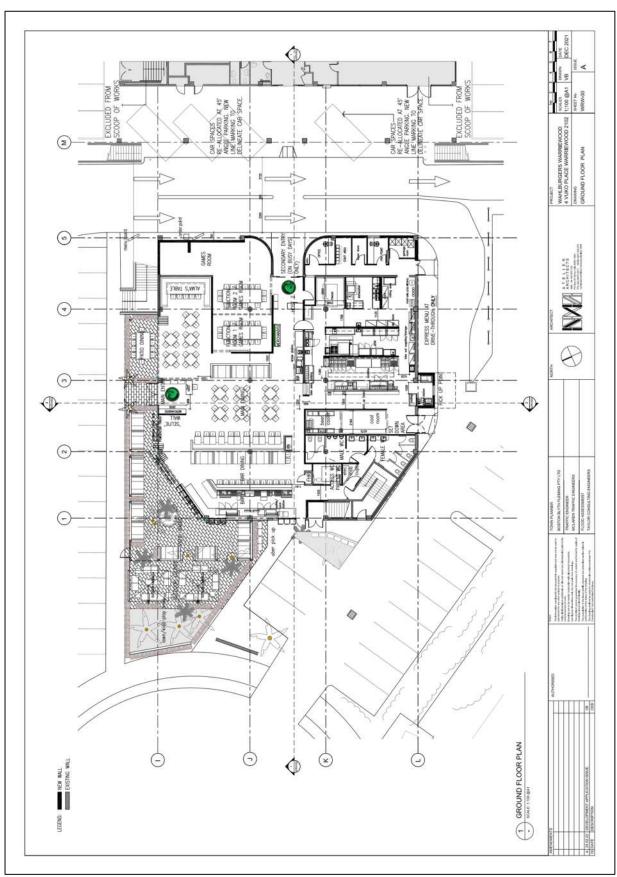
The proposed service bay will be shared amongst all land uses of the site and can be managed under an internal Plan of Management if neccessary. Waste of the site will be collected via the proposed service bay by a private contractor.

- g) The TfNSW Guide provides traffic generation rates for either a M<sup>c</sup>Donalds or a KFC drive-through restaurant, which are expected to operate with a higher traffic demand than the proposed Wahlburgers restaurant. The operator of the site has advised that the proposed Wahlburgers is expected to operate similar to a drive-through Oporto or Guzman Y Gomez, rather than a development such as a M<sup>c</sup>Donalds or KFC which tend to have a higher traffic demand. As per the TfNSW Guide rates for a KFC, the proposed Wahlburgers development could be expected to have a peak traffic volumes of 120 vehicle trips to/from the site (60 in; 60 out). Accounting for a passing trade of 50%, up to 60 additional vehicle peak hour vehicle trips could be expected to be generated by the proposed development, which is equivalent to one vehicle trip every minute.
- h) If this additional traffic volume were directed solely through the nearby intersection of Warriewood Road / Pittwater Road this would represent an increase of 1.35% of traffic volumes. This is a low proportion of additional vehicle trips that will likely be within the daily variations of the intersection.
  - If the Draft Oporto traffic generation rates from the 2018 TfNSW Guide were considered, the volume of additional traffic generated by the proposed Wahlburgers would likely be less than this 60 additional trips. In any case, it is likely that the traffic generation of the proposed development will not result in any adverse impacts to the surrounding road network.

In view of the foregoing, the traffic and parking impacts of the proposed Wahlburgers drivethrough restaurant at 4 Vuko Place, Warriewood (as depicted in **Annexure A**) is fully supportable in terms of its traffic and parking impacts.

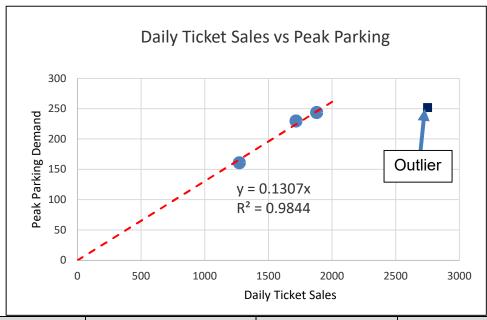


# ANNEXURE A: PROPOSED PLAN (SHEET 1 OF 1)





# ANNEXURE B: PARKING AND PATRON SURVEYS (WARRIEWOOD 2016) (SHEET 1 OF 3)



Day/Date	Maximum Parking Demand	Time Of Maximum Parking	Daily Ticket Sales
Friday – 08/01/2016	161	9:00PM	1271
Saturday – 09/01/2016	244	7:00PM	1879
Friday – 15/01/2016	252	7:30PM	2750
Saturday – 16/01/2016	230	7:30PM	1716

Day/Date	Tickets sold after 5pm	Restaurant Patrons after 5pm	Dual Use
Friday – 08/01/2016	530	95	18%



# ANNEXURE B: PARKING AND PATRON SURVEYS (WARRIEWOOD 2016) (SHEET 2 OF 3)

Curtis Traffic S	urveys	Patrons in venue
J ob:	160101mcl	
Day, date	09/01/16	
Location:	United Cinema	as 4 Vuko PI
Weather:	Fine	
Client:	McLaren Traff	ic Engineering
Time	Baroccobar	Funfair
09:00		- STORY
09:15		
09:30		
09:45	1	
10:00		0
10:15		0
10:30	1	I and the state of
10:45		0
11:00		0
11:15		0
11:30		0
11:45		2
12:00		0
12:15		0
12:30		0
12:45		0
13:00		0
13:15		6
13:30		9
13:45	-	5
14:00	5	8
14:15	- 10	
14:30		4
14:45		3
15:00		5
15:15		3 I
15:30		5 B
15:45 16:00	1	7
16:00		9
16:13	14	
16:45	1	
17:00		8
17:15		
17:30	7	
17:45	9	
18:00	13	
18:15	21	
18:30	28	3 .
18:45	20	) 4
19:00	17	,
19:15	10	) !
19:30	9	
19:45	9	
20:00	8	
20:15	6	
20:30		
20:45	- 6	
21:00		
21:15	11	
21:30	12	
21:45	9	
22:00	5	5 (

Curtis Traffic S	urveys	Patrons in venue
J ob:	160101mc	:1
Day, date	08/01/16	
Location:	United Cir	nemas 4 Vuko PI
Weather:	Fine	
Client:	McLaren '	Traffic Engineering
Time	Baroccob	ar Funfair
17:00	Grey denote	es no headcount
17:15		0
17:30		0
17:45		2
18:00		10
18:15		14
18:30		9
18:45		13
27.22		8
19:00		
19:15		
19:30	-	8
19:45	_	10
20:00	-	10
20:15	-	12
20:30		14
20:45		10
21:00		7
21:15		4 I
21:30		
21:45		4 2



#### ANNEXURE B: PARKING AND PATRON SURVEYS (WARRIEWOOD 2016)

#### (SHEET 3 OF 3)

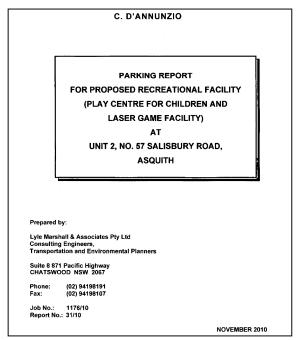
Curtis 1	Fraffic Surveys				Start	Finish	Interval Size	Restr	riction Table
					17:00	22:00	0:30	u	unrestricted
Job:	160101m	ncl						np	no parking
Client	t McLaren	Traffic Eng	ineering					Р	hour parking
Date	08/01/16							ns	no stopping
Locati	Locati Vuko PI Warriewood					dis	disabled		
Weat	her:							r	authorised residents or other permit holders excepted
Surve	) MC							bz	bus zone
								tz	taxi zone
Zone	Street	From	То	Side of St	Capaci	Restricti	on	res	reserved parking
a	United	Cinema	Νο 4 Vι	uko Pl	188	181+7	lis	*	turning bulb not included as legal, otherwise unrestricted
Ь	No 5 V	uko Pl			187				
с	No 3 Vi	uko Pl			105				
d	Vuko Pl	end	Warrie	east	20	*			
e	Vuko Pl	Warriev	end	west	34	u			

Curt	is Traffic Surveys																
Job:	160101md																
Client:	McLaren Traffic Engineering																
Day, date	08/01/16																
Location:	Vuko Pl Warriewood																
Weather:	Fine																
Surveyor	MC																
							Parking round commencing										
				Side of													
Zone	Street	From	То	Street	Capacity	Restriction	17:00	17:30	18:00	18:30	19:00	19:30	20:00	20:30	21:00	21:30	22:00
a	United Cinema No 4 Vuko Pl				188	181+7dis	81	78	75	128	136	141	149	148	161	75	80
Ь	No 5 Vuko Pl				187		34		- 11		9		3		2		- 1
с	No 3 Vuko Pl				105		22		29		20		2		3		3
d	Vuko Pl	end	Warriewood Rd	east	20	*	5		3		2		2		2		2
e	Vuko Pl	Warriewood Rd	end	west	34	u	12		7		5		9		12		13

Curti	is Traffic Surveys	1																												
- Cui ci	· · · · · · · · · · · · · · · · · · ·																													
Job:	160101mcl																													
Client:	McLaren Traffic Engineering																													
Day, date	09/01/16																													
Location:	Vuko Pl Warriewood																													
Weather	Fine																													
Surveyor	MC																													
					Park	ing ro	ound	con	nmei	ncing	<b>z</b>																			
Zone	Street	From		Side of Stre	9:00	00:01	0:30	00:11	11:30	12:00	12:30	3:00	3:30	14:00	4:30	15:00	15:30	16:00	6:30	17:00	17:30	18:00	18:30	00:61	19:30	20:00	20:30	21:00	21:30	22:00
			10	et		_	-					_	_		_				_											
a	United Cinema No 4 Vuko	PI			6	-		-	33	$\vdash$	48		60	86	88	94	126	160	133	131	128	126	142		188	161	160	-	81	/2
Ь	No 5 Vuko Pl				3	3		2		2		5		6		4		4		4		- 1		12		14		15		7
с	No 3 Vuko Pl				40	24		20		19		17		14		10		41		40		6		18		19		20		7
d	Vuko Pl	end	Warriewood Rd	east	8	8		4		3		3		3		3		- 1		2		2		16		19		18		4
e	Vuko Pl	Warriewood Ro	end	west	7	6		3		5		3		6		3		4		7		7		27		28		31		6



#### **ANNEXURE C: AMUSEMENT CENTRE REPORT EXTRACTS**



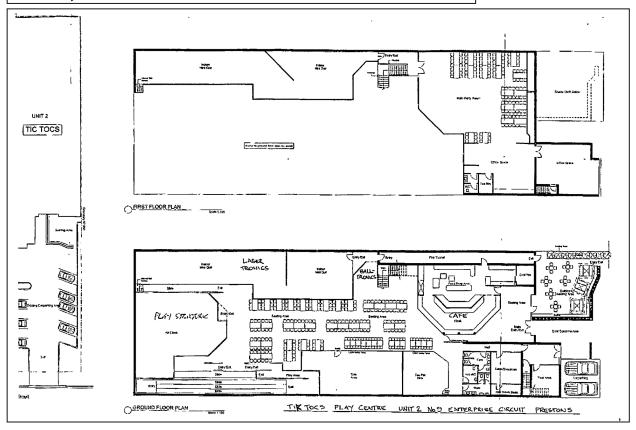
C, D'Annunzio

Parking Report for Proposed Recreational Facility
At Unit 2, 57 Salisbury Road, Asquith

Table 3.3 Peak Patronage and Parking Demand

	Num	ber of	Staff	Patrons	Total
Time	Adults	Children	Cars	Cars	Cars
1.00pm	58	95	8	43	51
2.00pm	59	79	8	45	<u>53</u>

The peak parking demand was 0.75 cars per adult for patrons and 1 per staff on duty.



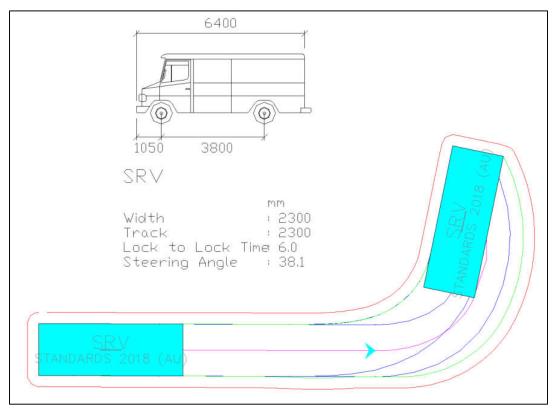


### ANNEXURE D: TICKET SALES FROM WARRIEWOOD (JULY 2015 – DECEMBER 2015)

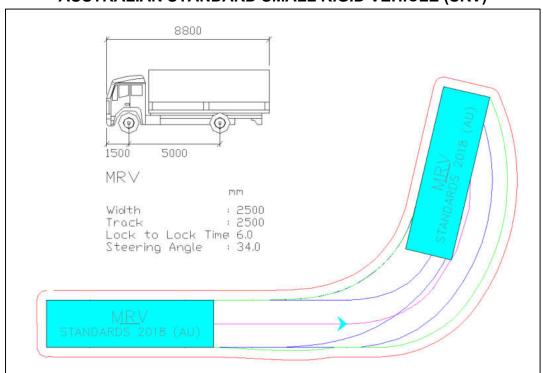
Friday Tickets	Friday Percentile	Saturday tickets	Saturday Percentile				
385	4	752	4				
432	8	812	8				
433	12	832	12				
435	16	846	15				
438	20	882	19				
444	24	893	23				
482	28	907	27				
488	32	916	31				
501	36	926	35				
530	40	927	38				
531	44	977	42				
539	48	1050	46				
580	52	1055	50				
594	56	1061	54				
598	60	1133	58				
641	64	1152	62				
676	68	1200	65				
825	72	1233	69				
1104	76	1250	73				
1204	80	1345	77				
1218	84	1490	81				
1234	88	1607	85				
1325	92	1630	88				
1443	96	1664	92				
1589	100	1783	96				
		2916	100				



### ANNEXURE E: SWEPT PATH TESTING (SHEET 1 OF 3)



#### **AUSTRALIAN STANDARD SMALL RIGID VEHICLE (SRV)**

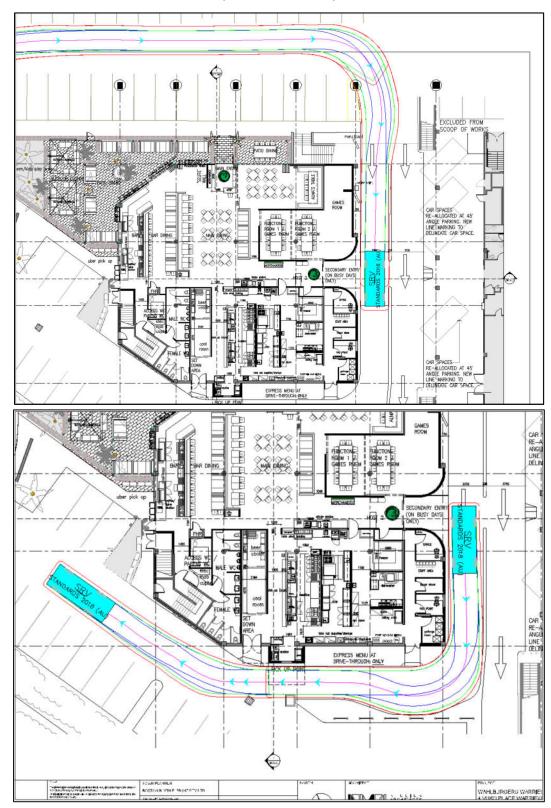


**AUSTRALIAN STANDARD MEDIUM RIGID VEHICLE (MRV)** 

Blue – Tyre Path Green – Vehicle Body Red – 500mm Clearance



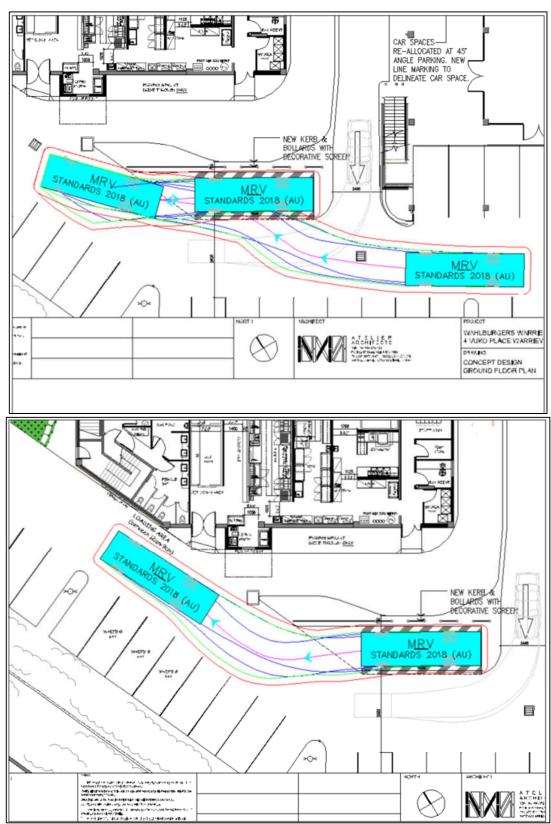
# ANNEXURE E: SWEPT PATH TESTING (SHEET 2 OF 3)



6.4m length SRV – Drive-through entry and egress Successful



# ANNEXURE E: SWEPT PATH TESTING (SHEET 3 OF 3)



8.8m long MRV Loading Bay Access
2 Manoeuvres Reverse IN / 1 Manoeuvre Forward OUT
Successful