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114-120 OLD PITTWATER ROAD, BROOKVALE

PLANNING PROPOSAL





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1 Introduction

This Planning Proposal (the Proposal) has been prepared by RPS on behalf of Primewest Funds Ltd (Primewest Funds) to facilitate the preparation of an amendment to Schedule 1 of *Warringah Local Environmental Plan 2011 (Warringah LEP 2011)* to permit business premises and office premises as standalone uses on land known as 114-120 Old Pittwater Road, Brookvale (the site).

The site is currently zoned IN1 General Industrial, which permits a range of uses including light industries and warehouses; however, this zone does not permit business or office premises land uses.

The existing uses on the site being warehouses and ancillary offices, are not considered to be economically viable in the long-term. With changes in technology, logistics and contemporary manufacturing processes, it has become evident that the type of facilities on site are no longer best suited for the location. Accordingly, current larger scale manufacturing and warehousing are relocating to areas better suited for contemporary business practices (i.e. close to major roads, rail and/or ports). Moreover, due to technological advances, there is a lesser need for head office operations to co-exist with the industrial facilities.

The purpose of this Proposal is therefore to amend Schedule 1of *Warringah LEP 2011* to enable business and office premises on the site. This would allow Primewest Funds to seek future development consent through the lodgement of a development application (DA) for the operation of business and office premises as standalone uses on the site.

Any future DA will not change the building envelopes, the appearance or the height of the existing development on site which are not ancillary to industrial uses. The approved gross floor area (GFA) and floor space ratio (FSR) for the site under the existing approvals will remain unchanged as a result of this Proposal.

The proposed amendment to the current zoning is justified for the following reasons:

- It is consistent with the *Greater Sydney Region Plan*, the strategic metropolitan plan for Greater Sydney over the next 20 and 40 years respectively;
- There is a declining need for industrial uses with large ancillary office space in the area and a need to
 enable alternative suitable land uses for long-term viability in the market;
- The proposed additional uses are consistent with all land surrounding the site and within the surrounding area; and
- It would enable Primewest Funds to accommodate major tenants that require standalone business or office premises which are compatible with the surrounding industrial uses.

The Proposal has been prepared in accordance with the Department of Planning and Environment's (DP&E's) *A Guide to Preparing Planning Proposals* and *A Guide to Preparing Local Environmental Plans*. It is supported by the following technical report:

 Traffic Impact Assessment prepared by GTA Consultants (refer to Appendix A)Transport Impact Assessment, 12 March 2018

It is therefore recommended that this Planning Proposal be favourably considered by Council and resolve to forward it to the DP&E for Gateway determination in accordance with the *Environmental Planning and Assessment Act 1979* (EP&A Act) to prepare the necessary LEP amendment.



2 The Site and Context

2.1 Site Description

The site is known as 114-120 Old Pittwater Road, Brookvale and is located within the Northern Beaches local government area (LGA) (refer **Figure 1**). The site comprises three lots and is comprised of the following three lots:

- Lot 1 DP 868761 (114 Old Pittwater Road);
- Lot 3 DP 868761 (114 Old Pittwater Road); and
- Lot 3 DP 444776 (120 Old Pittwater Road).



Figure 1 Site Location

Source: Six Maps

The site is zoned IN1 General Industrial pursuant to *Warringah Local Environmental Plan 2011 (Warringah LEP 2011)* (refer **Figure 2**). The site is irregular in shape with an overall area of approximately 4.2 ha and a frontage of 120m along Old Pittwater Road.





Key



Figure 2 Site Zoning

Source: Warringah LEP 2011

Existing improvements on the site include two industrial developments located to the north and south, and a substation along the eastern boundary in front of the development at 120 Old Pittwater Road.

The development on the northern part of the site (114 Old Pittwater Road) is situated behind the development at 108 Old Pittwater Road and accessed via a shared road. The development is a two storev building with an approximate 10,518sqm warehouse, 6,734sqm of ancillary office space and 225 car parking spaces. Parking is located to the east and west of the building with additional parking provided on the rooftop and accessed via a ramp to the south of the building. Fuji Film Australia was previously the major tenant of the site, however they have now relocated their Australian Head Office away from the Northern Beaches to a more appropriate site. The on-site warehouse is currently leased by Woolworths for warehousing and distribution uses. Woolworths has also taken up a small part of the ancillary office space. Service NSW has recently moved into a small portion of the ancillary office space on site. To the rear of the lot the land is undeveloped terrain which is partially excavated. Trees are planted to the east and south of the building.

Similarly, the development to the south (120 Old Pittwater Road) comprises a 2 to 5 storey office and warehouse building concentrated towards the front of the site. The building contains 8,459sqm of warehouse and 4,350sqm of office floor space. The major tenant, Avon Products Pty Ltd, has announced that they are vacating the site and are closing their Australian operations. Parking is provided in designated parking areas on the northern side of the building and western side at the rear, with further parking provided on the rooftop accessed from a ramp at the rear. There are 309 car parking spaces in total. The rear of the site is almost entirely vegetated and undeveloped steep rock. There are also other tree plantings along the edge of the building and a small internal park near the entrance of the building towards the centre of the site.

Both developments benefit from a right of carriageway easement across the shared vehicle accessway from Old Pittwater Road, which is split across 114 Old Pittwater Road (entrance) and the adjoining lot to the north at 108 Old Pittwater Road (exit). The vehicle access extends to the designated parking areas on the site



including the rooftop. There is also direct access to the site near the southern boundary of the site from Old Pittwater Road which caters for heavy vehicles.

The site is accessible to public transport with bus stops located approximately one kilometre to/from Westfield Warringah Mall along Pittwater Road. Frequent bus services are provided to the Sydney's Central Business District (CBD) and areas across the Northern Beaches. This includes the new B-Line service between Mona Vale and Wynyard, with services proposed to be extended to Newport sometime in 2018.

2.2 Local Context

The site is located within a commercial and industrial precinct, and it is predominately surrounded by IN1 General Industrial zoned land to the north, south and east and RE1 land to the west.

The adjoining lot to the north of the site (108 Old Pittwater Road) contains offices, warehouses and workshops of mixed industry. To the south, the adjoining lot (122-126 Old Pittwater Road) contains the Villeroy & Boch Factory Outlet. There are a mix of employment and business uses along Old Pittwater Road and a major retail centre, Westfield Warringah Mall, to the east on Pittwater Road.

The rear of the site abuts heavily vegetated public reserve zoned RE1 Public Recreation. The residential suburb of Allambie Heights is further west of the site, consisting of R2 Low Density Residential zoned with single and two-storey detached dwellings.

2.3 Local Planning Controls

2.3.1 Warringah Local Environmental Plan 2011

The environmental planning instrument governing land use and development on the site is *Warringah Local Environmental Plan 2011*. It is important for any future development within the LGA to be cognisant of and consider the general aims of *Warringah LEP 2011* and the relevant zone.

The relevant aims of the Warringah LEP 2011 specific to this Proposal are as follows:

(b) to recognise the role of Dee Why and Brookvale as the major centres and employment areas for the subregion

(e) in relation to non-residential development, to:

(ii) maintain a diversity of employment, services, cultural and recreational facilities

The proposed LEP amendment is consistent in addressing the aims of the Warringah LEP 2011 as follows:

- It will enable additional uses on the site that are compatible with the surrounding uses in the commercial and industrial precinct;
- It will diversify the employment opportunities available within the area; and
- It will provide suitable premises for future tenants that are economically viable in the long-term.

Under Warringah LEP 2011, the site is zoned IN1 General Industrial. The objectives of the zone are:

- To provide a wide range of industrial and warehouse land uses;
- To encourage employment opportunities;
- To minimise any adverse effect of industry on other land uses;
- To support and protect industrial land for industrial uses;



- To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area;
- To enable a range of compatible community and leisure uses; and
- To maintain the industrial character of the land in landscaped settings.

Development permitted with consent in the IN1 General Industrial zone includes:

Boat building and repair facilities; Depots; Freight transport facilities; Garden centres; General industries; Hardware and building supplies; Industrial retail outlets; Industrial training facilities; Light industries; Liquid fuel depots; Neighbourhood shops; Places of public worship; Roads; Storage premises; Take away food and drink premises; Timber yards; Vehicle body repair workshops; Vehicle repair stations; Vehicle sales or hire premises; Warehouse or distribution centres; Any other development not specified in item 2 or 4

The current IN1 zone does not permit business premises or office premises. Permitting business premises and office premises as additional uses would maintain employment on the site and enable a range of more intense commercial uses in the longer term future (beyond this Proposal) which if designed appropriately will complement and reinforce the Brookvale-Dee Why Strategic Centre.



3 Background

3.1 Changing Nature of the Industry

With changes in technology, logistics, and contemporary manufacturing processes, it has become evident that industrial/distribution uses with substantial ancillary office facilities on site are no longer best suited to the location. Previously, a place of substantial employment within Brookvale, there is now a significant decline in employment numbers on the site. The major industrial tenant of the development, Fuji Film Australia, located at 114 Old Pittwater Road, has relocated its Australian Head Office away from the Northern Beaches area to a more appropriate location for its business. The other major tenant of the development, Avon, located at 120 Old Pittwater Road, has also announced its departure from the site.

To contain employment numbers within the area and to ensure both the short and long-term prosperity for the locality, it is imperative to allow a wider range of compatible uses which will reactivate Brookvale as an active prosperous centre for work, living and shopping.

The industrial uses of the site and its surrounds are no longer considered appropriate, with many buildings along Old Pittwater Road already accommodating uses for other employment activities such as office and retail.

In summary:

- It is inevitable that the area will see the relocation of the current larger scale manufacturing and warehousing to locations better suited to contemporary business practices (i.e. close to major roads, rail and/or ports). If there is inaction in the short term for meaningful land use change, existing industrial zoned land will be used for less desirable low employment generating uses such as storage;
- There is an immediate need for short term planning solutions to maintain employment on site. e.g. reuse of space for office purposes; and
- The subject property (given land size and location) has exceptional potential for a range of additional uses including business and office uses, which if designed appropriately will complement and reinforce the Brookvale activity centre.

3.2 Council Meeting

Several meetings have been held with Northern Beaches Council over the past two years. Council officers, Primewest Funds and RPS representatives, discussed the Proposal and the potential for additional uses on the site to support the conversion of part of the site for business and office premises.

The first meeting with Council was held on 6 July 2016 (see Appendix B for notes of the pre-lodgement meeting). The key point raised at that meeting was that Council would not support a planning proposal at that time within the Brookvale investigation area until Council had completed the Brookvale Structure Plan.

Subsequent meetings have been held with Phil Jemison, Manager Urban Planning, regarding the Brookvale Structure Plan process and the subject site.



4 Part 1 – Objectives or Intended Outcomes

This Proposal seeks to allow the existing office premises on the site to be used independently of any warehouse/manufacturing type uses, with some minor business premises also permitted.

Apart from the business premise use (which would be limited), this Proposal is essentially allowing the same amount of office uses that currently occur on the site. The resulting operational change would be removing the need for offices occupying the buildings to be ancillary to the industrial warehouse components.

The objectives of this Proposal are:

- To ensure that high yield employment opportunities are not lost to low yield employment uses such as storage.
- To provide an immediate planning solution for the site e.g. reuse of the substantial area of high quality space for standalone office purposes and other suitable business premise uses.
- To allow the ongoing use of space occupied by existing office uses independently of any warehouse/manufacturing type uses.

It is envisaged that in the future tenants would operate generally within the existing building envelopes and any changes to the built form would be purely functional. Accordingly, this Proposal does not include any changes to the FSR or building height controls.



5 Part 2 – Explanation of Provisions

The provisions to be included in the proposed LEP are outlined below, in accordance with Section 3.33(2) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

5.1 Warringah Local Environmental Plan 2011

Name of Plan

This Plan is Warringah Local Environmental Plan 2011.

Aims of the Plan

This Plan aims to amend the Warringah Local Environmental Plan 2011 as follows:

• Insert the following subclause in Warringah LEP 2011 Schedule 1 Additional permitted uses:

23 Use of certain land at 114-120 Old Pittwater Road, Brookvale

- (1) This clause applies to Lot 1 and 3 in DP 868761 and Lot 3 in DP 444776, 114-120 Old Pittwater Road, Brookvale identified as "Area 23" on the Additional Permitted Uses Map.
- (2) Development for the purposes of business premises and office premises is permitted with consent.
- Amend *Warringah LEP 2011* Additional Permitted Uses Map Sheet APU_008A in accordance with the proposed additional permitted uses map shown at Section 7.2 of this Proposal.

Land to which Plan applies

This Plan applies to 114-120 Old Pittwater Road, Brookvale being Lot 1 and 3 in DP 868761 and Lot 3 in DP 444776.



6 Part 3 – Justification

This section provides justification of the Planning Proposal in line with the 'questions to consider when demonstrating the justification' set out within the NSW Government's *A Guide to Preparing Planning Proposals*.

6.1 Section A – Need for the Planning Proposal

6.1.1 Is the planning proposal a result of any strategic study or report?

The Proposal is not the result of any strategic study or report. However, the draft Brookvale Structure Plan supports the amendments set out within this Proposal. Refer section 6.2.2 below.

Strategic plans relevant to the site are discussed in detail in Sections 6.2.1 and 6.2.2 below. .

6.1.2 Is the planning proposal the best means of achieving the objectives and intended outcomes, or is there a better way?

The current IN1 General Industrial zone does not permit business premises or office premises on the site. It is considered that a Planning Proposal to amend Schedule 1 under *Warringah LEP 2011* to permit business premises and office premises on the site is the best means of achieving the objectives and intended outcomes set out in Section 4 above.

Amending Schedule 1 is preferred as it would permit two additional uses on the site whilst retaining the core uses permitted in the current IN1 General Industrial zone.

6.2 Section B – Relationship to Strategic Planning Framework

6.2.1 Is the planning proposal consistent with the objectives and actions of the applicable regional, sub-regional or district plan or strategy (including any exhibited draft plans or strategies)?

The following regional and district plans are relevant to this Proposal.

Greater Sydney Region Plan

The *Greater Sydney Region Plan* is the metropolitan planning document prepared by the Greater Sydney Commission (GSC) to update *A Plan for Growing Sydney*. The Plan was adopted by the NSW Government in March 2018 and becomes the overarching strategic document for Greater Sydney. The Plan was prepared concurrently with the NSW Government's *Draft Future Transport Strategy 2056* and Infrastructure NSW's *State Infrastructure Strategy 2016* to integrate land use, transport and infrastructure across Greater Sydney.

The Plan outlines how Greater Sydney will manage growth and development over the next 40 years. The document outlines the vision and strategy for Greater Sydney, to be implemented at a local level through District Plans. The Plan considers Sydney as three cities, Eastern, Central and Western. It sets out directions and objectives in relation to infrastructure and collaboration, liveability, productivity and sustainability.

Table 1 demonstrates that the Proposal is supportive of the relevant directions of the Plan.



Table 1 Greater Sydney Region Plan, Directions

Directions	Applicable	Comment			
Infrastructure and collaboration					
A city supported by infrastructure	N/A	The site is well serviced by existing infrastructure. The Proposal does not seek to deliver additional infrastructure.			
A collaborative city	N/A	The site is not identified as a Collaboration Area.			
Liveability					
A city for people	N/A	The Proposal does not involve housing or social infrastructure.			
Housing the city N/A		The Proposal will not increase the housing supply on the site as it is zoned for industrial purposes.			
A city of great places N/A		The Proposal does not involve social infrastructure. The Proposal will not change the existing built environment but will enable additional uses on the site.			
Productivity					
A well connected city	N/A	The Proposal does not integrate land use and transport.			
		The site is not part of the Eastern Economic Corridor.			
		The site is not part of a freight or logistic network.			
		The site is not located on existing or proposed regional connection corridors.			
Jobs and skills for the city	Yes	The Proposal will attract renewed investment and business activity in the Brookvale-Dee Why Strategic Centre to provide jobs growth. The Proposal will also diversify and increase employment opportunities on the site and within Brookvale-Dee Why by enabling standalone business premises and office premises to operate in association with the existing warehouse premises on the site.			
Sustainability					
A city in its landscape	N/A	The Proposal aims to enable business premises and office			
An efficient city	N/A	necessary environmental considerations will be adequately			
A resilient city	N/A	addressed at the development application stage.			

North District Plan

Concurrently with the Region Plan, the GSC released District Plans for Greater Sydney, with the site forming part of the North District. The Plans were adopted by the NSW Government in March 2018. The *North District Plan* sets out the 20 year vision, priorities and actions for the District to 2036. The plan seeks to align land use planning and infrastructure planning to accommodate population growth to 2036.

Brookvale-Dee Why is identified as a strategic centre, providing the greatest number of jobs in the Northern Beaches LGA. Brookvale is recognised as industrial area supporting niche manufacturing and wholesale industries. Warringah Mall in Brookvale is also recognised as one of the largest retail areas in Greater Sydney. Growth of the combined centre (Brookvale-Dee Why) including greater connectivity will attract employment, retail and local services which would strengthen the existing centre.



The key actions for Brookvale-Dee Why that are relevant to this Planning Proposal include:

- Maintain the mix of uses so that Brookvale-Dee Why continues to perform strongly as a well-balanced, self-sustaining combined centre; and
- Encourage the establishment of new, innovative and creative industries in the Brookvale industrial area.

In relation to retaining and managing industrial and urban services land, the Plan also states that (p. 82):

"There will also be a need, from time to time, to review the list of appropriate activities within any precinct in consideration of evolving business practice, and how they can be supported through permitted uses in local environmental plans. Any review should take into consideration findings of industrial, commercial and centre strategies for the local government area and/or the district."

As of 2016, the GSC estimates that the strategic centre of Brookvale-Dee Why accommodated up to 20,000 jobs. By 2036, Brookvale-Dee Why is expected to accommodate 23,000 (baseline target) to 26,000 (higher target) jobs. This is an additional 3,000 to 6,000 new jobs for Brookvale-Dee Why by 2036. This Planning Proposal and any future redevelopment of the site would contribute to the growth in employment in Brookvale-Dee Why.

6.2.2 Is the planning proposal consistent with a council's local strategy or other local strategic plan?

The following local strategic planning documents are relevant to this Proposal.

Draft Northern Beaches Community Strategic Plan 2017 – 2028

Draft Northern Beaches Community Strategic Plan 2017 - 2028 is the community strategic roadmap for the Northern Beaches LGA. It outlines the community's vision and sets the future direction for the LGA over the next ten years.

The draft vision for the Northern Beaches is for "a safe, inclusive and connected community that lives in balance with our extraordinary coastal and bushland environment."

The key community outcome relating to this Proposal is a 'Vibrant Local Economy'. One of the key strategies relating to this community outcome is to *"ensure that employment lands are retained and cater for a diverse range of businesses and industry."*

The Proposal is considered to align with this Plan. The Proposal seeks to expand the employment uses on the site with the inclusion of business and offices premise uses, and therefore would diversify and increase employment opportunities on the site and within the Brookvale employment lands.

Warringah Economic Development Plan 2011

The Warringah Economic Development Plan 2011 (WEDP2011) provides the framework and gives direction for economic development within Warringah. A key theme is "Growing Employment Opportunities" to develop a strong local economy which promotes enterprise and innovation, builds a skilled and educated workforce and contributes to a high quality of life for the community. One key objective and action of the WEDP2011 is to revitalise older industrial areas including Brookvale.

The WEDP2011 states (p.29):

 Brookvale will develop into a more accessible and attractive centre of employment with an integrated TAFE campus and with potential in the medium to long term as a commercial office precinct to cater for the highly skilled workforce in the area.



- The majority of the existing industrial uses are likely to remain in Brookvale. However, projections suggest a decline in traditional, industrial related jobs and an increase in intensity of use of the industrial lands.
- Opportunity to investigate more intensives uses of some of this industrial land in and around the existing retail and education uses, such as commercial offices, to ensure that the centre can meet the employment needs of the subregion."

Therefore, the Proposal is consistent with WEDP2011. The site is undergoing a decline in its existing industrial uses and the inclusion of business premises and office premises as additional uses on the site aligns with the statement above with regard to an increase in intensity of use of the industrial lands.

Warringah Employment Study 2013

The Warringah Employment Study 2013 (WES2013) was prepared for Council by SGS Economics and Planning to provide more detailed assessment of trends identified in the WEDP2011. It identified that the majority of businesses in the Brookvale area are industrial, warehousing and ancillary services, "with an emerging market in commercial office activities".

According to BTS Employment Forecasts (2009) Warringah's employment will increase by 12,533 jobs from 2011 to 2036. Warringah Council floor space projections anticipate an additional floor space demand for all employment generating precincts in Warringah. The Study also references traffic constraints which might limit the extent to which Brookvale can accommodate this growth.

In 2011 there was a recognised oversupply of commercial office space throughout Warringah, with an estimated vacant floor space of 40,000sqm. However, the study suggests "the demand for commercial office space is likely to pick up over the next 10 to 25 years as a result of changing global market conditions". It specifically identifies the industrial area near Warringah Mall as a prime location for high quality and flexible commercial office space, given its good access to public transport, retailers and graduates of the TAFE, but nevertheless indicates that floor space projections show a likely decrease in demand for office and business park floor space in this area. Instead it says "the primary focus for the future development of this area should be improvements in the quality of urban design and the built environment and continuous improvement in amenity".

The report acknowledges that the northern periphery of the Brookvale West Industrial Area is facing increasing rezoning pressure from industrial to residential. The report touches on issues of conflict of uses which need to be carefully considered, but more significantly the need to preserve land for industrial use over time.

Enabling business premises and office premises within the IN1 General Industrial zones on the site would cater for the increasing demand for commercial business and office space, and support the preservation of the commercial and industrial precinct of Brookvale.

(Draft) Brookvale Structure Plan 2017

The *Draft Brookvale Structure Plan* provides the strategic land use planning framework for Brookvale over the next 20 years. The Plan guides future development while protecting employment lands in Brookvale. The Plan recognises Brookvale for its critical economic and employment role for both the Northern Beaches LGA and Greater Sydney region.

The Plan outlines that Brookvale should retain its industrial base and employment focus but needs to evolve to cater for emerging business trends and employment sectors. The aim of the Plan is to ensure that land use planning controls enable Brookvale to continue to thrive as an employment-based centre while also enabling the area to be enhanced as a vital place to live and work. The Plan advocates that redevelopment should be encouraged, and that an extended range of employment uses should be considered.



In particular, Brookvale's 'Industrial Area West' has seen the emergence of larger site redevelopment with office-based activities over recent years. To build on this emerging trend, the Structure Plan proposes to allow, in addition to all currently permitted uses, the addition of business premises and office premises in this area.

The Plan proposes the following LEP amendments for Brookvale's Industrial Area West:

- Proposed Change: The Structure Plan supports the diversification of uses within Industrial Area West to promote employment and cater for the emergence of larger site redevelopment with office based activities. The Structure Plan recommends additional permitted uses, specifically being the addition of "business premises" and "office premises" within this area (refer to Figure 3 below).
- Implementation: An LEP amendment to include "business premises" and "office premises" as 'Additional Permitted Uses' in the area.

As such, the Proposal is consistent with the Brookvale Structure Plan. The Proposal seeks to expand the permitted uses on the IN1 General Industrial zoned site to include business premise and office premise uses. These additional uses are consistent with the recommendations of the Structure Plan, and will help to maintain and enhance the economic and employment role of Brookvale.



Figure 3 Proposed Zoning Changes for Brookvale Structure Plan

Source: Brookvale Structure Plan



6.2.3 Is the planning proposal consistent with the applicable State Environmental Planning Policies?

The proposal is consistent with the applicable State Environmental Planning Policies as summarised in Table 2 below.

Table 2Application of SEPPs

SEPP	Applicable	Comment
SEPP No. 55 Remediation of Land	Yes	The provisions of this SEPP have been considered in the preparation of this Proposal. The site is currently developed for warehouses and ancillary offices. The Proposal does not include any new development on the site and the additional uses are considered to be compatible with the existing surrounding uses. Therefore, it is considered the Proposal is suitable for the site and a Stage 1 Preliminary Site Contamination Investigation is not considered necessary.
SEPP (Infrastructure) 2007	Yes	Relevant clauses of the SEPP have been considered in the preparation of this Proposal, namely in relation to traffic- generating development. These matters are to be managed in accordance with the current conditions of consent and any future development approvals. The Proposal is not intended to enable additional development on the site, however it will permit business premises and office premises to operate as standalone organisations.

6.2.4 Is the planning proposal consistent with applicable Ministerial Directions (s.117 directions)?

The relevant Section 117 Directions are considered in Table 3 below. Note that with the recent EP&A Act amendments, this section of the Act is now referred to as section 9.1.

Table 3 Application of s117 Ministerial Directions

Direction	Requirement	Applicable	Comment
1. Employment and	d Resources		
	The objectives of this direction are to: (a) encourage employment growth in suitable locations, (b) protect employment land in business and industrial zones, and (c) support the viability of identified strategic centres.	Yes	The site is zoned IN1 General Industrial and the Proposal will retain the existing industrial zoning. The Proposal is consistent with this Direction as it will encourage employment growth in the area through allowing business premises and office premises as standalone uses. These uses are considered to be compatible with the surrounding uses and would diversify the employment opportunities available on the site.
1.1 Business and Industrial Zones	A planning proposal must:		The Proposal will not rezone the site or reduce the total floor area on the site. Instead, the Proposal aims to permit standalone business premises and office premises to increase the



Direction	Requirement	Applicable	Comment
	 (a) give effect to the objectives of this direction, (b) retain the areas and locations of existing business and industrial zones, (c) not reduce the total potential floor space area for employment uses and related public services in business zones, (d) not reduce the total potential floor space area for industrial uses in industrial zones, and (e) ensure that proposed new employment areas are in accordance with a strategy that is approved by the Director-General of the Department of Planning. 	Yes	employment opportunities on the site that are compatible with the industrial zoning. The type of facilities currently on site are no longer best suited for the location and enabling separately operated business and office activities is considered appropriate to ensure long term prosperity.
4. Hazard and Risk			
4.2 Mine Subsidence and Unstable Land	(9) The objective of this direction is to prevent damage to life, property and the environment on land identified as unstable or potentially subject to mine subsidence.	Yes	The site is identified as Area A with Flanking Slopes less than 5 degrees, Area B with Flanking Slopes from 5 to 25 degrees and Area C with Slopes greater than 25 degrees on the Landslip Risk Map under the Warringah LEP 2011. The Proposal is consistent with this Direction as it does not include any new developments on the site.
4.4 Planning for Bushfire Protection	The objectives of this direction are: (a) to protect life, property and the environment from bush fire hazards, by discouraging the establishment of incompatible land uses in bush fire prone areas, and (b) to encourage sound management of bush fire prone areas.	Yes	The site contains Bushfire Prone Land: Vegetation Category 1 and 2, according to the Warringah Bush Fire Prone Land Map 2016. The Proposal does not involve the development of any new buildings therefore additional bushfire assessment is not required. The Proposal will enable the existing office space to be leased separately.
6. Local Plan Making	1		
6.3 Site Specific Provisions	The objective of this direction is to discourage unnecessarily restrictive	Yes	The Proposal will not create restrictive site specific planning controls on the site but instead



Direction	Requirement	Applicable	Comment
	site specific planning controls.		will permit business and office premises to operate as standalone organisations.
7. Metropolitan Plani	ning		
7.1 Implementation of A Plan for Growing Sydney	The objective of this direction is to give legal effect to the planning principles; directions; and priorities for subregions, strategic centres and transport gateways contained in A Plan for Growing Sydney.	See comment	The Greater Sydney Region Plan replaced A Plan for Growing Sydney in March 2018. The Plan is now the metropolitan strategic document for Sydney adopted by the NSW Government. The Proposal will strive to achieve the vision and desired outcomes of the Plan, as well as adhere to land use strategies and policies applicable. A more detailed assessment of the Proposal against the <i>Greater Sydney Region Plan</i> is provided in Section 6.2.1.

6.3 Section C – Environmental, Social & Economic Impact

6.3.1 Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

The rear of the site contains native vegetation and is identified as a wildlife corridor in the *Warringah Development Control Plan 2011*. However, the Proposal will not adversely affect these areas as the additional permitted uses will be contained within the existing development, and ancillary office space currently exists on the site.

6.3.2 Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

Transport Impact Assessment

A Transport Impact Assessment Report was prepared by GTA Consultants (dated 12 March 2018) to assess the potential traffic and parking impacts of the Proposal. The key findings of the report are summarised below:

- The site is well served by public transport services, including several high frequency bus services along Pittwater Road near Warringah Mall;
- The Proposal is required by the Warringah Development Control Plan 2011 to provide 536 car parking spaces;
- The existing car park access via Old Pittwater Road and on-site loading facility remains appropriate for the Proposal;
- The Proposal is required to provide at least 56 bicycle lockers / secured rails for staff and 13 bicycle rails for visitors in accordance with the minimum requirements of the *Warringah Development Control Plan 2011*. The proposed bicycle lockers / rails, end of trip facilities, and motorcycle parking spaces and locations would be detailed during subsequent development applications;
- The Proposal is expected to generate 301 and 351 vehicle movements in the AM and PM peak hour periods respectively. Considering the traffic currently generated by existing uses on the site, the



Proposal is anticipated to generate a net increase of 119 and 71 vehicle movements in the AM and PM peak hour periods respectively;

- The Proposal will result in no change in level of service at the intersections of Old Pittwater Road / Beacon Hill Road and Old Pittwater Road / Pittwater Road;
- Since the intersection of Beacon Hill Road / Old Pittwater Road is already operating at capacity in the AM peak under existing conditions, any additional traffic would likely impact the operation;
- Overall, traffic generated by the Proposal is anticipated to have only a minor impact, representing a relatively small portion of the existing traffic volumes (no more than 2.3 per cent); and
- The impact of the traffic associated with the Proposal could be reduced with the provision of various measures (such as the implementation of a Green Travel Plan) to reduce reliance on car travel.

Refer to Appendix A (Traffic Impact Assessment prepared by GTA Consultants) for further details.

6.3.3 Has the planning proposal adequately addressed any social and economic effects?

The Proposal will result in positive social and economic impacts in the local region by facilitating increased employment opportunities, enhancing the site's longer-term viability and providing more jobs close to residential areas. The Proposal will also result in diversified employment and business opportunities within the Brookvale industrial area by enabling business and office premise uses on the site. With the decline in employment numbers on the site, there is a need to facilitate other business prospects that are complementary to the surrounding industrial uses and will maintain the long-term viability of the precinct.

6.4 Section D – State & Commonwealth Interests

6.4.1 Is there adequate public infrastructure for the planning proposal?

The site is in an area currently serviced by all necessary services and infrastructure facilities, including bus services to Warringah Town Centre and the Sydney CBD, as well as the B-line service from/to Mona Vale to Wynyard.

The Proposal does not seek to create additional demand on existing infrastructure.

6.4.2 What are the views of State and Commonwealth public authorities consulted in accordance with the Gateway determination?

If necessary, both State and Commonwealth public authorities would be consulted by the Department of Planning and Environment during Gateway Determination. Any issues raised would be summarised and addressed as required.



7 Part 4 – Mapping

This section contains the mapping for this Proposal in accordance with the DP&E's guidelines on preparing LEPs and Planning Proposals.

7.1 Existing Controls

Figure 4 below illustrates that there are no additional permitted uses applying to the site.





Source: Warringah LEP 2011



7.2 Proposed Controls

Figure 5 below illustrates the proposed additional permitted uses for the site sought by this Proposal.



Figure 5 Proposed Additional Permitted Uses Map

Source: Warringah LEP 2011



8 Part 5 – Community Consultation

Community consultation is an important element of the Plan making process. The DP&E's companion document *A Guide to Preparing Local Environmental Plans* provides time frames for the exhibition of 'low impact proposals' and 'all other planning proposals' of 14 days and 28 days respectively. The subject provisions, in respect of notification and the exhibition materials to support the consultation, will be observed.

Pursuant to section 2.22 of the EP&A Act, Part 1 of Schedule 1 sets out the mandatory requirements for community participation by planning authorities with respect to the exercise of relevant planning functions.

Community consultation will, at a minimum, include:

- Advertising in local newspapers;
- Exhibition material provided at Northern Beaches Council offices and libraries;
- Council's and/or the Department of Planning and Environment's website; and
- Letters to adjoining landowners (in accordance with Council's Notification Procedures).



9 Part 6 – Project Timeline

Table 4 below outlines an indicative timeline for completion of the Proposal if approved for public exhibition at Gateway Determination.

Table 4 Anticipated Project Timeline – Update post meeting with Council

Anticipated Project Timeline	Date
Lodgement of the Planning Proposal	April 2018
Consideration by Council	April – June 2018
Lodgement for Gateway determination	June 2018
Anticipated commencement date (date of Gateway determination)	July 2018
Anticipated timeframe for the completion of required technical information	August – October 2018
Timeframe for government agency consultation (pre and post exhibition as required by Gateway determination)	October – November 2018
Commencement and completion dates for public exhibition period	November – December 2018
Dates for public hearing (if required)	February 2019
Timeframe for consideration of submissions	March 2019
Timeframe for the consideration of a proposal post exhibition	April 2019
Date of submission to the Department to finalise the LEP	May 2019
Anticipated date the relevant planning authority will make the plan (if delegated)	June 2019
Anticipated date relevant planning authority will forward to the Department for notification	July 2019



10 Conclusion

This Proposal has been prepared to enable business and office premises on land known as 114-120 Old Pittwater Road, Brookvale by including these as additional permitted uses on the site. The proposed LEP amendment does not seek to amend the building envelopes, the appearance or the height of the existing development on site. The main objective of this Proposal is to enable a future DA or DAs to be lodged, enabling the use of the existing ancillary office space as standalone business premises and office premises without any association with the existing warehouses.

It is therefore recommended that this Proposal be favourably considered by Council and forwarded to the DP&E for a Gateway Determination in accordance with the *Environmental Planning and Assessment Act 1979*.



Appendix A

Transport Impact Assessment





114-120 Old Pittwater Road, Brookvale Planning Proposal Transport Impact Assessment

Client // Primewest Funds Ltd Office // NSW Reference // N108881 Date // 12/03/18

114-120 Old Pittwater Road, Brookvale

Planning Proposal

Transport Impact Assessment

Issue: A 12/03/18

Client: Primewest Funds Ltd Reference: N108881 GTA Consultants Office: NSW

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A	12/03/18	Final	Ghizlane Chergaoui Mackenzie Brinums,	Siew Hwee Kong	Karen McNatty	Kope

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1.1 Background

It is understood that a planning proposal (PP) is to be lodged with Northern Beaches Council (Council), formerly known as the Warringah Council for land located at 114-120 Old Pittwater Road, Brookvale. The PP seeks to amend Schedule 1 Additional Permitted Uses of the Warringah Local Environmental Plan (LEP) 2011, to permit standalone business premises and office premises. The amendment will allow the reuse of the existing office components of two buildings on site, currently approved as IN1-General Industrial under LEP 2011, to allow the existing office space to be used as office/ business premises independent of any warehouse/ manufacturing type uses.

This plan aims to amend the LEP 2011 as follows:

• Insert the following subclause in Warringah LEP 2011 Schedule 1 Additional permitted uses:

22 Use of certain land at 114-120 Old Pittwater Road, Brookvale

- (1) This clause applies to Lot 1 and 3 in DP 868761, and Lot 3 in DP 444776, 114-120 Old Pittwater Road, Brookvale identified as "Area 22" on the Additional Permitted Uses Map.
- (2) Development for the purpose of business premises and office premises is permitted with development consent.
- Amend Warringah LEP 2011 Additional Permitted Uses Map Sheet APU_008A in accordance with the proposed additional permitted uses map shown at Section 7.2 of this Proposal.

J W Evans Projects on behalf of Primewest Funds Ltd (Primewest) commissioned GTA Consultants (GTA) in December 2017 to complete a transport impact assessment to inform the PP, with reference to the existing site layout.

1.2 Purpose of this Report

This report sets out an assessment of the anticipated transport implications of the proposed development, including consideration of the following:

- i existing traffic and parking conditions surrounding the site
- ii suitability of the existing parking in terms of supply (quantum) and layout
- iii suitability of the existing service vehicle provisions
- iv pedestrian and bicycle requirements
- v the traffic generating characteristics of the proposed development
- vi suitability of the existing access arrangements for the site
- vii the transport impact of the PP on the surrounding road network.

1.3 References

In preparing this report, reference has been made to the following:

- inspections of the site and its surrounds on Wednesday 7 February 2018 and Thursday 8 February 2018
- Warringah Development Control Plan (DCP) 2011
- Warringah Local Environmental Plan (LEP) 2011



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- traffic survey undertaken by Matrix Traffic and Transport Data on Tuesday 6 February 2018 as referenced in the context of this report
- traffic and car parking surveys undertaken by GTA on Wednesday 7 February 2018 and Thursday 8 February 2018 as referenced in the context of this report
- other documents and data as referenced in this report.



2. Existing Conditions

The subject site is located at 114-120 Old Pittwater Road, Brookvale within the Northern Beaches local government area (LGA). The site comprises three lots and covers an area of 4.2 hectares. The site currently has a land use classification of IN1 General Industrial under LEP (2011).

The site is currently occupied by two industrial buildings located to the north (114 Old Pittwater Road) and south (120 Old Pittwater Road), and a substation along the eastern boundary and has frontages of approximately 120 metres to Old Pittwater Road. The site shares the same access road with 108 Old Pittwater Road via Old Pittwater Road. There is also direct access to the site near the southern boundary of Lot 120 from Old Pittwater Road which caters for heavy vehicles.

The existing 114 Old Pittwater Road building consists of a two-storey building with a 10,518 square metre warehouse and 6,734 square metres of ancillary office space. The 120 Old Pittwater Road building includes an office and warehouse building on the southern side of the site ranging between two and five storeys. The building comprises 8,459 square metres of warehouse and 4,350 square metres of office floor space. Parking is provided on the northern side of the building, the western side at the rear, and roof top parking accessed from a ramp at the rear of the building.

The surrounding properties include general industrial, public recreation, low and high density residential, commercial core, retail and local centre uses.

The location of the subject site and its surrounding environs is shown in Figure 2.1.



Figure 2.1: Subject Site and Its Environs

Basemap: Sydway


2.1 Road Network

Adjoining Roads

Old Pittwater Road

Old Pittwater Road functions as a collector road, it is aligned in a north-south direction, is a twoway road with one travel lane and one parking lane in each direction, set within a carriageway of around 12 metres. Access to the site is provided along the western side of Old Pittwater Road, with pedestrian paths provided along both sides of the road.

Old Pittwater Road connects to Pittwater Road at its northern end and Condamine Street at its southern end. Old Pittwater Road has a speed limit of 50 kilometres per hour.

Unrestricted kerbside parking is permitted along both sides of Old Pittwater Road.

Old Pittwater Road is shown in Figure 2.2 and Figure 2.3.

Figure 2.2: Old Pittwater Road (looking north)



Figure 2.3: Old Pittwater Road (looking south)



Pittwater Road

Pittwater Road is classified as a State Road and near Old Pittwater Road is aligned in a north-south direction. It is a two-way road configured with two travel lanes and one parking lane in each direction, set within a carriageway of around 22 metres wide. Pittwater Road has a posted speed limit of 60 kilometres per hour.

Kerbside parking is permitted, subject to time restrictions (1P-10am to 6pm Monday to Friday and 8:30am to 12:30pm Saturday).

Pittwater Road is shown in Figure 2.4.

Condamine Street

Condamine Street is classified as a State Road. It is a two-way road configured with two travel lanes and one bus lane in each direction, set within a carriageway of around 20 metres wide. Condamine Street has a posted speed limit of 60 kilometres per hour.

Kerbside parking is not permitted along both sides of the road on Condamine Street.

Condamine Street is shown in Figure 2.5.



Figure 2.4: Pittwater Road (looking north)

Figure 2.5: Condamine Street (looking north)





Beacon Hill Road

Beacon Hill Road functions as a collector road and is aligned in a north-south direction. The southern segment of the road is a two-way four-lane road configured with a 12-metre-wide carriageway. Kerbside parking is not permitted within this section of the road.

The northern segment is also a two-way two-lane road, configured with a 12-metre-wide carriageway. Unrestricted kerbside parking is permitted on this segment of Beacon Hill Road.

Beacon Hill Road is subject to a three-tonne load limit, and generally has a speed limit of 50 kilometres per hour.

Beacon Hill Road is shown in Figure 2.6 and Figure 2.7.

Figure 2.6: Beacon Hill Road (looking north)



Figure 2.7: Beacon Hill Road (looking south)



Surrounding Intersections

The following intersections exist near the site:

- Old Pittwater Road/ Beacon Hill Road (signalised).
- Old Pittwater Road/ Pittwater Road (signalised). Right turns are not permitted from Pittwater Road to Winbourne Road, nor from Winbourne Road to Pittwater Road.
- Old Pittwater Road/ Condamine Street (signalised).

2.2 Traffic Volumes

GTA commissioned traffic movement counts at the above key intersections on Tuesday 6 February 2018 during the following peak periods:



- 7am and 10am
- 4pm and 7pm.

The intersections have been surveyed due to their proximity to the site (within 1.2 kilometres) and the potential for traffic generated by the PP to use these intersections (refer to Section 5.2).

The morning (AM) peak hour occurred between 8am and 9am and the evening (PM) peak hour occurred between 4:30pm and 5:30pm. The AM and PM peak hour turning movements are presented in Figure 2.8, with full results contained in Appendix A.

Given the unique use of the Service NSW, GTA also completed traffic surveys at the car parking areas associated with the centre on Wednesday 7 February 2018 and Thursday 8 February 2018 during the AM and PM peak periods.

Figure 2.8: Existing AM and PM Peak Hour Traffic Volumes (vehicles per hour)



2.3 Intersection Operation

The operation of the key intersections has been assessed using SIDRA INTERSECTION¹, a computerbased modelling package which calculates intersection performance.

The commonly used measure of intersection performance, as defined by the Roads and Maritime Services (Roads and Maritime), is vehicle delay. SIDRA INTERSECTION determines the average delay that vehicles encounter and provides a measure of the level of service.

Table 2.1 shows the criteria that SIDRA INTERSECTION adopts in assessing the level of service. It is noted that average delay per vehicle is expressed in seconds per vehicle (sec/veh) and is measured for the movement with the highest average delay per vehicle at priority intersections, and overall movements at signalised intersections. The degree of saturation, or x-value, is the ratio of the arrival rate of vehicles to the capacity.

Level of Service (LOS)	Average Delay per vehicle (sec/veh)	Traffic Signals, Roundabout	Give Way & Stop Sign
А	Less than 14	Good operation	Good operation
В	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
С	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Near capacity	Near capacity, accident study required
E	57 to 70	At capacity, at signals incidents will cause excessive delays	At capacity, requires other control mode
F	Greater than 70	Extra capacity required	Extreme delay, major treatment required

Table 2.1: SIDRA INTERSECTION Level of Service Criteria

Table 2.2 presents a summary of the existing operation of the intersection, with full results presented in Appendix B of this report.



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¹ Program used under license from Akcelik & Associates Pty Ltd.

Intersection	Peak	Leg	Degree of saturation (DOS)	Average delay (sec)	95th percentile queue (m)	Level of service (LOS)
		South	0.92	69	44	E
		Northeast	0.77	44	123	D
	AM	Northwest	1.03	74	473	F
Old Dittayotor		West	0.85	30	83	С
Road/Beacon		Overall	1.03	59	473	E
Road/ Beacon Hill Road		South	0.65	52	70	D
(signalised)		Northeast	0.91	49	109	D
	PM	Northwest	0.64	40	115	С
		West	1.09	59	329	E
		Overall	1.09	52	329	D
	AM	South	0.90	44	253	D
		East	0.53	32	57	С
		North	0.73	20	198	В
		West	0.93	46	102	D
Old Pittwater		Overall	0.93	32	253	С
Road (signalised)		South	0.98	64	488	E
		East	0.67	38	72	С
	PM	North	0.71	18	103	В
		West	0.98	58	147	E
		Overall	0.98	47	488	D
		South	0.70	29	223	С
	0.1.4	Northwest	0.56	13	124	А
Old Pittwater	Alvi	North	0.53	58	68	E
Road/		Overall	0.70	25	223	В
Street		South	0.83	34	321	С
(signalised)	DM	Northwest	0.57	21	142	В
Old Pittwater Road (signalised) Old Pittwater Road/ Condamine Street (signalised)	PIVI	North	0.83	56	228	D
		Overall	0.83	35	321	С

Table 2.2: Existing Intersection Operating Conditions

Based on the above assessment and site observations, there is significant traffic congestion at the intersection of Old Pittwater Road/ Beacon Hill Road during the AM peak hour, with the intersection experiencing peak period queuing and delays on the north-western leg (Beacon Hill Road) of up to 473 metres and 74 seconds respectively. During the PM peak hour, the western leg (Old Pittwater Road) of the intersection experiences up to 329 metres of queueing and 59 seconds of average delay.

The intersection of Old Pittwater Road/ Pittwater Road currently operates satisfactorily during the AM peak hour. During the PM peak hour, the intersection operates close to capacity with the worst delay occurring on the southern approach of Old Pittwater Road. This movement has an average delay of 64 seconds and a maximum vehicle queue of 488 metres. The western approach of Old Pittwater Road experiences queuing of up to 147 metres and an average delay of 58 seconds during the PM peak hour.

The intersection of Old Pittwater Road/ Condamine Street currently operates at satisfactorily with level of service B and C during the AM and PM peak hours respectively. The northern approach experience vehicle queues of up to 68 metres and 228 metres during the weekday AM and PM



peak hours respectively. The north-western leg of this intersection currently experiences minor delays during both the AM and PM peak periods.

During the AM peak hour, much of the congestion at the intersection of Old Pittwater Road/ Beacon Hill Road is influenced by the traffic utilising Beacon Hill Road to and from Warringah Road. The above congestion will be addressed as part of the Northern Beaches Hospital connectivity and network enhancement works which will provide some relief on Beacon Hill Road by improving connectivity to Allambie Road via Wakehurst Parkway and Warringah Road.

There are remaining capacities at the intersections of Old Pittwater Road/ Pittwater Road and Old Pittwater Road/ Condamine Street, to cater for the traffic generated by the proposed development with future development traffic entering via Old Pittwater Road from Condamine Street during the both AM and PM peak hours.

2.4 Car Parking

Supply

A total of 607 car parking spaces have been identified. The existing distribution of these parking spaces is shown in Table 2.3 and shown in Figure 2.9.

	Supply			
	Rooftop	220		
114 Old Dittwater Dead	On-Grade (Front) (Service NSW)	20		
TT4 Old Pillwalei Road	On-Grade (Front)	36		
	On-Grade (Back)	47		
Subto	Subtotal (114 Old Pittwater Road)			
	Rooftop	151		
120 Old Dittwater Dead	On-Grade (Front) (Service NSW)	14		
120 Old Pillwater Road	On-Grade (Front)	29		
	On-Grade (Back)	90		
Subto	Subtotal (120 Old Pittwater Road)			
	607			

Table 2.3: Distribution of On-Site Parking Spaces





Figure 2.9: Distribution of On-Site Parking Spaces

Basemap source: Nearmap

Demand

Parking demand surveys were undertaken by GTA within the nominated area during the following periods:

- Wednesday 7 February 2018 0
- 4:30pm to 6:30pm
- Thursday 8 February 2018 0
- 7:00am to 9:00am.

The peak parking demand results are summarised in Table 2.4 and Table 2.5 for weekday AM and weekday PM peak periods respectively.



	Location	Supply	7:00am	7:30am	8:00am	8:30am	9:00am	Veak Utilisation (%)
	Rooftop	220	15	26	48	84	131	60
114 Old Pittwater	On-Grade (Front) (Service NSW)	20	2	1	3	6	10	50
Road	On-Grade (Front)	36	8	11	10	12	15	42
	On-Grade (Back)	47	2	3	3	4	2	9
	Rooftop	151	36	46	51	76	106	70
120 Old Pittwater	On-Grade (Front) (Service NSW)	14	2	2	5	5	5	36
Road	On-Grade (Front)	29	5	11	12	13	14	48
	On-Grade (Back)	90	6	7	7	12	25	28
	Total	607	76	107	139	212	308	51
	Utilisation (%)	Utilisation (%) 12 17 22 34 49				-		
Table 2.5:	Summary of week	day PM p	eak perio	d parking	demand			
	Location Supply 4:30pm 5:00pm 5:30pm 6:00pm 6:30pm				6:30pm	Peak Utilisation (%)		
	Rooftop	220	127	93	57	34	24	58
114 Old Pittwater	On-Grade (Front) (Service NSW)	20	13	14	10	8	1	70
Table 2.5: 5	On-Grade (Front)	36	22	20	15	13	12	61
	Location Supply 7:00am 7:30am 8: 114 Old Pittwater Road Rooftop 220 15 26 1 114 Old Pittwater Road On-Grade (Front) (Service NSW) 20 2 1 1 120 Old Pittwater Road On-Grade (Front) (Service NSW) 36 8 11 1 120 Old Pittwater Road On-Grade (Front) (Service NSW) 14 2 2 1 120 Old Pittwater Road On-Grade (Front) (Service NSW) 14 2 2 1 0n-Grade (Front) (Service NSW) 14 2 2 1 1 0n-Grade (Back) 90 6 7 1 1 1 0n-Grade (Back) 90 6 7 1 1 1 1 able 2.5: Summary of weekday PM peak period parking den 5:00pm 5: 5: 114 Old Pittwater Road On-Grade (Front) (Service NSW) 20 13 14 1 120 Old Pittwater Road On-Grade (Front) (Service NSW) 14 5<	2	2	2	5			
	Rooftop	151	110	102	78	54	25	73
120 Old Pittwater	On-Grade (Front) (Service NSW)	14	5	4	7	4	2	50
Road	On-Grade (Front)	29	15	10	7	3	3	52
	On-Grade (Back)	220 15 26 20 2 1 36 8 11 47 2 3 151 36 46 151 36 46 114 2 2 29 5 11 90 6 7 607 76 107 70 12 17 Kopply 4:30pm 5:00pm 200 127 93 200 127 93 200 127 93 200 13 14 36 22 20 47 2 20 151 110 102 47 2 2 14 5 4 29 15 10 90 37 33 90 37 33 90 37 33 90 37 33 90 37 33 90 331 278	26	19	10	41		
	Total	607	331	278	202	137	79	55
	Utilisation (%)		53	45	32	22	13	-

Table 2.4: Summary of weekday AM peak period parking demand

It is noted that both sites are currently 98.5 per cent leased and are operating at full capacity. Notwithstanding that, the car parking supply is currently underutilised during the peak periods with a maximum occupancy of around 50 and 53 per cent during the AM and PM peak hours respectively.

2.5 Public Transport

Due to the sites proximity to Warringah Mall, it is well served by high frequency and highly accessible buses running from 4.30am until 12.30am travelling along Pittwater Road, which combine to provide a high level of accessibility with a range of key destinations including Sydney CBD and surrounding destinations such as Manly, Dee Why, Collaroy Plateau, Mona Vale, Bayview and also Frenchs Forest. Services are regular at 15 to 30-minute headways during the peak periods.

The B-Line Program, introduced in November 2017, includes a new fleet of buses, providing frequent and reliable services between Mona Vale and the Sydney CBD. The service would further be extended to Newport in 2018. To provide reliable services, several improvements to the road



corridor and implementation of bus priority measures across the Northern Beaches and Lower North Shore were introduced and to be completed by 2019. The B-Line services are shown in Figure 2.10.



Figure 2.10: B-Line Network Map

Source: <u>https://www.transport.nsw.gov.au</u>, accessed 3 March 2018

The B-Line Program also includes six new car parks (a total of 900 car parking spaces) in Mona Vale, Warriewood, Narrabeen, Dee Why, Brookvale and Manly Vale, which are easily accessible to the nearby transport hubs or B-Line stops.

The bus services available near the site are shown in Figure 2.11 and summarised in Table 2.6.







Source: https://transportnsw.info, accessed 12 January 2018

 Table 2.6:
 Public Transport Provision

Route	Route Description	Location of Stop	Walking Distance to Nearest Stop	Frequency Peak/ Off Peak
132, 135, 168, 180, E68	Warringah Mall to Manly, Warringah Mall to North Head, North Balgowlah to Milsons Point, Collaroy Plateau to City Wynyard, Brookvale to City Wynyard	Condamine Street at Pozieres Parade	750 m	10-30 min/ 30-60 min
132, 135, 139, 280, 151, 159, 168, 169, 178, 180, 188, E68, E75, E76, E77, E78, E79, E80, E83, E85, L90, 185, 199	Manly, North Head, Manly, Chatswood, City QVB, Dee Why, Milsons Point, City Wynyard, Mona Vale, Palm Beach	Warringah Mall, Pittwater Road	1.0km	10-30 min/ 30-60 min

2.6 Pedestrian Infrastructure

One metre wide footpaths are provided on both sides of Old Pittwater Road. The intersections of Old Pittwater Road/ Pittwater Road, Old Pittwater Road/ Beacon Hill Road and Old Pittwater Road/ Condamine Street provide safe crossing points, with most legs of the intersections fitted with signalised pedestrian crossings.

2.7 Cycle Infrastructure

There is some cycling connectivity from the perimeter of the site to the surrounding suburbs via onroad and off-road cycleways. There is currently unmarked and incomplete on-road and off-road cycle paths that run along Old Pittwater Road that joins on to Clearview Place, Cross Street and Smith Avenue to continue along Pittwater Road.

Figure 2.12 shows the existing bicycle routes near the subject site. There is currently no bicycle parking or end of trips facility provided on site.







Source: http://yoursay.northernbeaches.nsw.gov.au, accessed 04 March 2018



2.8 Local Car Sharing Initiatives

GoGet car sharing pods are located near the site, with the locations closest to the site shown in Figure 2.13. The location for the closest three pods (no 24-hour access) is in Westfield Warringah Mall are located approximately 600 metres walking distance.



Figure 2.13: Nearby GoGet Pods

Source: https://www.goget.com.au/, accessed 11 January 2018

2.9 Crash History

An analysis of the road safety history of the area has been undertaken based on crash data provided by Roads and Maritime for the six-year period from 1 January 2012 to 31 December 2017. The locations of the reported crashes for the intersections of Old Pittwater Road/ Beacon Hill Road and Old Pittwater Road/ Pittwater Road are shown in Figure 2.14 with the locations of the reported crashes for the intersection of Old Pittwater Road/ Condamine Street shown in Figure 2.15.

82 crashes were recorded at the three key intersections in the six-year period with most of crashes were typical rear end or intersection crashes.

It is noted that one pedestrian fatality occurred at the intersection of Condamine Street/ Old Pittwater Road. The fatality occurred while using the north-south pedestrian (zebra) crossing at the slip left-turn lane of the north-western leg from Old Pittwater Road to Condamine Street. As a result, the zebra crossing was replaced with a signalised pedestrian crossing in October 2016.



Figure 2.14: Reported Crash Locations at intersections of Old Pittwater Road/ Beacon Hill Road and Old Pittwater Road/ Pittwater Road



Figure 2.15: Reported Crash Locations at intersection of Old Pittwater Road/ Condamine Street



Figure 2.16 outlines the number and type of different crashes that have occurred around the subject site over the last six years.



Figure 2.16: Crash Occurrence by Type





3.1 Land Uses

The PP intends to amend the existing planning controls imposed on the site to allow for office space other than that which is considered ancillary to the warehouse space. The existing and future uses of sites are summarised in Table 3.1.

	Size (square metres)						
Building		Existing l	Jse		Proposed Use		
	Warehouse	Ancillary Warehouse Office Space	Office Space	Subtotal (Existing Use)	Warehouse	Office Space (Separate)	Subtotal (Proposed Use)
114 Old Pittwater Road	10,518	6,734	1,030	18,282	10,518	7,764	18,282
120 Old Pittwater Road	8,459	4,350	-	12,809	8,459	4,350	12,809
Total	18,977	11,084	1,030	31,091	18,977	12,114	31,091

 Table 3.1:
 Development Schedule

As shown in Table 3.1, the total floor area would remain, with the ancillary office space to the warehouse converted to stand alone office space.

3.2 Vehicle Access

Vehicular access for the site will be maintained.

Vehicular access to and from the site is provided from a shared two-way road located along the western side of Old Pittwater Road. For the site located on 114 Old Pittwater Road, parking is available on the east and west of the building, with additional parking provided on the roof of the building. Rooftop parking is accessed via a ramp located on the southern end of the building. Parking is provided in designated parking areas to the north and west rear side of the building for the site located on 120 Old Pittwater Road, with further rooftop parking accessed from a ramp at the rear.

3.3 Car Parking Requirements

The car parking provision requirements for different development types are set out in the DCP 2011 for the proposed change of use. A review of the car parking requirement rates and the floor area schedule results in a parking requirement for the proposed development as summarised in Table 3.2 below.

Building	Use	Size (square metres)	DCP Parking Rate (square metres)	Parking Requirement
114 Old Pittwater Road	Warehouse	10,518	1.3 spaces per 100	137
	Office Space	5,704	1 space per 40	143
	Service NSW	1,030	Various ^[1]	37
	Subtotal (114 Old Pittwater Road)			317

Table 3.2: PP Car Parking Requirements



Building	Use	Size (square metres)	DCP Parking Rate (square metres)	Parking Requirement
120 Old Pittwater Road	Warehouse	8,459	1.3 spaces per 100	110
	Office Space	4,350	1 space per 40	109
	Subtotal (120 Old Pittwater Road)			219
		30,061	-	536 spaces

[1] Table 5 Summary of car parking requirements, Statement of Environmental Effects Proposed Change of Use - 114 Old Pittwater Road, Brookvale, prepared by Elton Consulting dated 5 August 2016.

Based on the above, the proposed development is required to provide 536 car parking spaces.

Accessible Parking

DCP 2011 does not provide any requirements for accessible parking.

As such, the Building Code of Australia (BCA) has been referenced to determine the number of accessible parking spaces to be provided.

Based on the sites being Class 5 buildings (An office building used for professional or commercial purposes, excluding buildings of Class 6, 7, 8 or 9), the site is required to provide accessible car parking spaces at a rate of one space for every 100 car parking spaces or part thereof.

Given 607 car parking spaces on-site, the PP is required to provide six accessible car parking spaces.

3.4 Adequacy of Parking Supply

The overall parking provision of 607 spaces meets the DCP 2011 car parking requirement of 536 spaces.

The development also includes six on-site accessible car spaces, with four and two accessible spaces within the car parking areas for Sites 114 and 120 respectively. This is in accordance with the BCA accessible car parking requirement of six spaces.

3.5 Motorcycle Parking

DCP 2011 does not provide any requirements for motorcycle parking. It is, however, recommended that dedicated motorcycle parking spaces are provided at the rate of one space per 50 car parking spaces. Based on the total car spaces of 607 spaces, the proposed development is recommended to provide 12 motorcycle parking spaces. Motorcycle spaces are required to be 2.5 metres long by 1.3 metres wide.

The proposed motorcycle parking spaces and locations will be detailed during the subsequent Development Application (DA) stage.



3.6 Bicycle Parking

DCP 2011 states that bicycle parking facilities must be provided for new buildings and for alterations or additions to existing buildings. In the case of alterations or additions to existing buildings, bicycle parking facilities are required for the additional floor area only. Given the conversion of 11,084 square metres of ancillary office space to stand alone office space, the minimum bicycle parking requirements are as summarised in Table 3.3.

	, j	5 1			
	Proposed	Minimum Pa	rking Rate	Minimum Parking Provision	
Building	Additional Office Use (square metres)	Locker/ secured rail (staff)	Rail (visitor)	Locker/ secured rail (staff)	Rail (visitor)
114 Old Pittwater Road	6,734	- 1 per 200sam GEA	1 per 750sqm	34	8
120 Old Pittwater Road	4,350	i per 200sqiii GrA	1000sqm	22	5
Total	11,084			56	13

Table 3.3: DCP 2011 Bicycle Parking Requirement

Based on the above, the DCP 2011 requires that the PP incorporate at least 56 bicycle lockers/ secured rails for staff and 13 bicycle rails for visitors to meet the requirements. This equates to a total of 69 bicycle lockers/ rails for staff and visitors. There is adequate space within the car parking area to meet these requirements.

The proposed bicycle lockers/ rails and locations will be detailed during the DA stage.

3.7 Loading Facilities

The existing loading and waste collection activities and deliveries associated with the existing ancillary office uses will remain for the proposed standalone office use. It is anticipated that the existing loading arrangement would adequately service the proposed development.

3.8 Pedestrian Facilities

Pedestrian access is maintained via the pedestrian paths along Old Pittwater Road.



4. Sustainable Transport Infrastructure

This chapter discusses potential measures that could encourage alternative means of travel to the private car and encourage the use of more environmentally sustainable forms of travel.

4.1 Cycle Network

Northern Beaches Bicycle Plan identified several on-road and off-road shared path (sealed) cycle routes in Brookvale. These routes would directly benefit cyclists of the subject site by improving cycling accessibility in the Brookvale CBD and around the site as shown in Figure 2.12.

4.2 Bicycle Parking Facilities

DCP 2011 contains general requirements for bicycle parking facilities as follows:

- Bicycle parking shall be designed and constructed in accordance with Australian Standard AS 2890.3 Bicycle Parking Facilities.
- Bicycle parking facilities shall be designed to be an integral part of the development and where visible from public places or streets, will complement the visual quality of the public domain.
- End of trip facilities must be provided for new buildings and for alterations or additions to existing buildings. In the case of alterations or additions to existing buildings end of trip facilities are required for the additional floor area only.
- End of trip facilities shall be provided in accordance with the following:
 - Bathroom/ change area(s) shall be provided and shall contain: At least one toilet, wash basin, mirror, clothing hooks and power points (including shaving plugs).
 - A minimum of one shower cubicle per seven required bicycle parking spaces.
 - Each shower cubicle shall include a private changing area with a bench and a minimum of two clothing hooks.
- Clothes Lockers shall be:
 - Provided at the rate of one clothes locker for every required bicycle parking space.
 - Secure, ventilated and large enough to store cycling gear (such as panniers, shoes, towels and clothing).
 - Suggested minimum dimensions of a clothes locker are 900mm (height), 350mm (width) and 500mm (depth).

Based on the provision of 69 bicycle lockers/ rails for staff and visitors, the DCP 2011 requires that the PP incorporate at least:

- one bathroom/ change area
- 10 shower cubicles
- 69 clothes lockers.

DCP 2011 recommends that the design of bicycle parking facilities be in accordance to the following:

• Part 11 of the NSW Bicycle Guidelines Australian Standard AS 2890.3- Bicycle Parking Facilities.



- The design principles and specifications for Bicycle parking contained in Part 7.6 of the NSW Planning Guidelines for Walking and Cycling.
- Cycling Aspects of Austroads Guides 2011 Part 11: End of Trip Facilities and Appendix F.

The proposed bicycle end of trip facilities and locations will be detailed during the DA stage.

4.3 Pedestrian Network

The site is located within a well-connected pedestrian network that provides access to key destinations within Brookvale such as Pittwater Road Bus Terminal and the retail precinct along Pittwater Road. Pedestrian paths are provided on both sides of the roads in the immediate vicinity of the site.

4.4 Public Transport

As discussed previously, the site is easily accessible by public transport with Warringah Mall and Pittwater Road Bus Terminal located within 1km. The Pittwater Road Bus Terminal is well served by high frequency and highly accessible buses travelling along Pittwater Road as well as Condamine Street and making use of Pittwater Road Bus Terminal. The proximity to public transport will increase the use of public transport by tenants and staff and discourage the use of private motor vehicles.

4.5 Green Travel Plan

Green Travel Plans (GTPs) have proven to be a successful way of changing travel behaviour for residential and commercial developments throughout Australia and overseas. A GTP is a way in which a development manages the transport needs of residents, staff and visitors. The aim of the plan is to reduce the environmental impact of travel to and from a given site and in association with its operation. The GTPs encourage more efficient use of motor vehicles as well as alternatives to single occupant car usage.

The GTP would put in place measures to further influence the travel patterns of those people working at the development with a view to encouraging modal shift away from cars.

To reduce car parking demand from the development, the most straightforward actions should be addressed first.

- Implementation of the GTP:
 - Appoint a Travel Plan Coordinator (TPC) to ensure the successful implementation and monitoring of the GTP.
 - Conduct annual travel surveys to establish travel patterns in the area and assess success of the GTP. This would be managed by the appointed TPC. Allow surveys to incorporate suggestions from residents and staffs to improve green travel arrangements.
 - Create a site specific GTP website.

• Increase walking, running and cycling to work and to other destinations (errands, recreational, social) by tenants, staff and visitor:

- The development should also include innovative transport solutions to manage travel demand and reduce reliance on private vehicles.
- Implementation of a subsidised bicycle share membership plan.
- Adequate provision of bicycle spaces based on the DCP requirements. It is proposed to include spaces for bicycle share schemes such as Reddy Go and oBike.



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- Provision of fully serviced end of trip facilities such as showers, changeroom and daily laundry (including supplying laundered towels, detergents, irons and ironing boards, hair dryers, toiletries etc.).
- Provision of workplace toolkits including puncture repair equipment and bicycle pumps and a bicycle repair station.

• Increase public transport use:

- Provide interactive timetables on-site to promote public transport usage.
- Allow for access to umbrellas and ponchos in case of wet weather.
- Allocate space for an on-site kiosk station with Live NSW traffic and public transport conditions.
- Provision of good quality, accurate and useful directional signage to promote walking and cycling is essential and it is proposed that this is provided stating times to destination in minutes taken, as well as distances in half kilometres.
- Liaise with transport operators to address any issues or gaps in the network identified by staff.

• Increase car share use:

- Initially allocate one space for car share vehicle within the site, with expansion opportunities based on demand.
- Implementation of a ride share system, which could include encouraging staff to participate in a peak-hour car-pooling club or common work location during the peak hours. This may be coordinated by a 'transport champion', an appointed worker, building manager or formally appointed TPC.
- Provide priority parking or reduced parking costs for staff that car-pool.
- Encourage tenants to consider the need for fleet vehicles in conjunction with the on-site car share vehicles to meet business travel needs appropriately.
- Provide electric car charge stations to offer green parking incentives.

• Increase staff and visitor awareness and knowledge of available transport options:

- Provision of a Transport Access Guide (TAG) which should be given to every tenant, staff and regular visitor. The TAG should include public transport timetables, walking times/ distances etc. See Section 0 for details.
- Provide real time information on public transport arrival/ departure times with information screens in the lobby identifying occupants of each floor along with the local weather and a rolling newsfeed.
- A half yearly newsletter could be provided to every staff and tenant for up to two years after occupation bringing the latest news on sustainable travel initiatives in the area.

Transport Access Guide

A Transport Access Guide (TAG) would accompany a Green Travel Plan that provides travel information for people travelling to and from the site using the sustainable forms of transport available – walking, cycling and public transport. The TAG provides a simple quick visual look at a location making it easy to see the relationship of a site to bus stops, car share pods and walking and cycling routes.

Such TAGs encourage the use of non-vehicle mode transport and can reduce associated greenhouse gas emissions and traffic congestion while improving health through active transport choices.



They can be presented in different forms, such as a map printed on the back of business cards or envelopes with complimentary slips to define more comprehensive information. Best practice suggests that the information should be as concise, simple and site centred as possible and where possible provided on a single side sheet. If instructions are too complex, residents and staff are likely to ignore them.

The information presented in the TAG could also be incorporated onto public transport noticeboards that would make staff and visitors more aware of the alternative transport options available.

4.6 Monitoring and Reviewing

There is no standard methodology for the implementation and management of the sustainable transport initiatives. However, as part of the GTP, these initiatives should be monitored to ensure that it is achieving the desired benefits.

The monitoring of the GTP would require travel surveys to be undertaken with a focus to establish travel patterns including mode share of trips to and from the site.

The implementation of the GTP will need a formal TPC, who will have responsibility for developing, implementing and monitoring the GTP. The TPC will be an appointed staff member of the proposed development or an independent expert.

It will also be necessary to provide feedback to staff and tenants to ensure that they can see the benefits of sustainable transport.

There are several key elements to the development and implementation of a successful GTP. These include:

- **Communication** Good communication is an essential part of the GTP. It will be necessary to explain the reason for adopting the plan, promote the benefits available and provide information about the alternatives to driving alone.
- **Commitment** GTPs involve changing established habits for people in new developments to choose a travel mode other than private car use. To achieve cooperation, it is essential to promote positively the wider objectives and benefits of the plan. This commitment includes the provision of the necessary resources to implement the plan, beginning with the introduction of the 'carrots' or incentives for changing travel modes upon occupation.
- **Building consensus** It will be necessary to obtain broad support for the introduction of the plan from the tenants.

Once the plan has been adopted, it is essential to maintain interest in the scheme. Each new initiative in the plan will need to be publicised and marketing of the project will be important.



5.1 Traffic Generation

5.2 Existing Traffic Generation

As discussed, the site is currently occupied by two warehouses with ancillary office space buildings. To estimate the net change in traffic generated by the existing and proposed uses, the traffic generation of the existing warehouse and ancillary office uses have been estimated. These are based on the applicable rates sourced from the *Guide to Traffic Generating Developments* (Roads and Maritime Services [Roads and Maritime], 2002) and *Technical Direction TDT 2013/ 04 Guide to Traffic Generating Developments Updated traffic surveys* (TDT 2013/ 04), and traffic surveys of the existing site access.

5.2.1 Service NSW

The traffic generation of the existing Service NSW is based on the traffic surveys of the existing site access. Based on the completed traffic survey, the Service NSW generates 24 and 110 trips per hour during the AM and PM peak hours respectively.

5.2.2 Business Parks and Industrial Estates Uses

TDT 2013/04 provides updated rates for business parks and industrial estates, with an average rate of 0.52 trips per 100 square metres of gross floor area (GFA) for the weekday morning peak hour while an average rate of 0.56 trips per 100 square metres of GFA for the weekday evening peak hour.

Based on the traffic survey and above rates, and acknowledging that the existing buildings are fully tenanted, the existing traffic generation of the Service NSW, business parks and industrial estate uses of the site is detailed in Table 5.1.

	e Use GFA (sqm)		CEA.	Traffic Generation Rate (per 100 square metre GFA)		Traffic Generation	
Site			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
	Warehouse	Business	10,518			55	59
114 Old Pittwater Road	Ancillary Warehouse Office Space Estat	Parks and Industrial Estates	6,734	0.52 vehicle trips/ hour	0.56 vehicle trips/ hour	36	38
	Service NS	1,030	Traffic	survey	24	110	
120 Old	Warehouse	Business Parks and	8,459	0.52 vehicle	0.56 vehicle	44	48
Road	Ancillary Warehouse Office Space	Industrial Estates	4,350	trips/ hour	trips/ hour	23	25
		Total				182	280

Table 5.1: Existing Traffic Generation Estimates

Table 5.2 indicates that the existing site generates 182 and 280 trips per hour during the AM and PM peak hours respectively.



5.3 Post-Development Traffic Generation

Typical traffic generation estimates for the proposed development have been sourced from the Roads and Maritime Guide to Traffic Generating Developments (Technical Direction: August 2013).

5.3.1 Office Blocks Uses

Roads and Maritime TDT 2013/04 provides updated rates for office blocks (2010 surveys) within the Sydney urban area, Newcastle, and Wollongong. TDT 2013/04 specifies an average AM peak hour trip generation of 1.6 vehicle trips per 100 square metres GFA, with the PM peak hour rates slightly lower at 1.2 trips/ hour.

Estimates of the AM and PM peak hour for the site are provided in Table 5.2.

			CEA.	Traffic Generation Rate (per 100 square metre GFA)		Traffic Ge	eneration
Site		Use		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
114 Old	Warehouse	Business Parks and Industrial Estates	10,518	0.52 vehicle trips/ hour	0.56 vehicle trips/ hour	55	59
Pittwater Road	Office	Office Blocks	6,734	1.6 vehicle trips/ hour	1.2 vehicle trips/ hour	108	81
		Service NSW	1,030	Traffic	survey	24	110
120 Old	Warehouse	Business Parks and Industrial Estates	8,459	0.52 vehicle trips/ hour	0.56 vehicle trips/ hour	44	48
Pittwater Road	Office	Office Blocks	4,350	1.6 vehicle trips/ hour	1.2 vehicle trips/ hour	70	53
Total						301	351

Table 5.2: Traffic Generation Estimates

Table 5.2 indicates by adopting generic traffic generation rates, the subject site could be anticipated to generate 301 to 351 movements in the AM and PM peak hours respectively.

Net Traffic Generation 5.4

Considering the traffic generated by the existing uses on the site, the PP is anticipated to generate an additional 119 and 71 vehicle movements in the AM and PM peak hours respectively as shown in Table 5.3.

Table 5.3:	Net increase in traffic Generation	on			
llee		Traffic Generation			
	036	AM Peak Hour	PM Peak Hou		
	Existing Uses	182	280		
	Proposed Uses	301	351		

Table F 2: Not l

Net Increase

5.5 Distribution and Assignment

The directional distribution and assignment of traffic generated by the proposed development will be influenced by several factors, including the:

119

Configuration of the arterial road network in the immediate vicinity of the site



71

- i Existing operation of intersections providing access between the local and arterial road network
- ii Distribution of households near the site
- iii Likely distribution of employees' residences in relation to the site
- iv Configuration of access points to the site.

Having consideration to the above, for the purposes of estimating vehicle movements, the assumed directional distributions are shown in Figure 5.1 and Figure 5.2.

Figure 5.1: Traffic Arrival Distribution



Figure 5.2: Traffic Departure Distribution



In addition, the following directional split of traffic (i.e. the ratio between the inbound and outbound traffic movements) of 20 per cent inbound and 80 per cent outbound has been assumed for the warehouse and office components during a weekday morning peak hour, with the reverse directional split in the evening peak hour.

Based on the above, Figure 5.3 show the estimated turning movements near the subject property following full site development.





Figure 5.3: Future Weekday AM and PM Peak Hour Traffic Volumes (vehicles per hour)

5.6 Traffic Impact

Existing Intersection Layouts (with development)

The key intersections have been analysed using SIDRA INTERSECTION to determine what impact the additional traffic would be expected to have on their operating conditions. Table 5.4 presents a summary of the expected future operation of the key intersections respectively, with full results included in Appendix B.



Intersection	Peak	Leg	Degree of saturation (DOS)	Average delay (sec)	95th percentile queue (m)	Level of service (LOS)
		South	0.92	69	44	E
IntersectionPeakLegDegree of saturation (DOS)Average delay (sec)95 perce queueOld Pittwater Road/ Beacon Hill Road (signalised)ASouth0.926944AMNortheast0.81451.2Mest0.811.058251West0.873188Overall1.056451Mortheast0.914910Mortheast0.914910Northeast0.914910Northeast0.914910Mortheast0.914910Mortheast0.914910Mortheast0.914910Mortheast0.914910Mortheast0.914910Mortheast0.914910Mortheast0.935328Morth0.752020West0.933528Morth0.752020West0.933528Morth0.721810Mest1.006214Mest1.006214Mest1.006214Mest1.006214Mest0.555817Mest0.581412Mest0.581412Mest0.581412Mest0.582119	Northeast	0.81	45	128	D	
	513	F				
	87	С				
Road/Beacon	sectionPeakLegDegree of saturation (DOS)Average delay (staturation (DOS))AMSouth0.9269Northeast0.8145AMNortheest0.8145Mest0.8731Verall1.0564Road halised)Mest0.6553Northeast0.9149Northeast0.9149Northeast0.9149Northwest0.6440West1.1164Overall1.1154AMSouth0.9353East0.5332AMNorth0.7520West0.9346Overall0.9335East0.7140PHtwaterSouth0.9865East0.7140PMNorth0.7218PMMorth0.7230Northwest0.5814Northwest0.5814Northwest0.5814Northwest0.5821Northwest0.5821North0.8659Overall0.8659	64	513	E		
Hill Road (signalised)		South	0.65	53	70	D
(signalised)	ection Peak Leg South Northeast Northwest West West West Northwest Northwest West West West West West West Overal Northwest West Overal East North West Overal East North West Overal East North West Overal North West Overal North West Overal North West Overal South West Overal North West South South West Overal Overal North West South South North West South North West South South North West South South South North West South Northwest South Northwest Northwest Northwest North South North South North South North South North South Northwest North South North North North North North North North North North North North North North North North	0.91	49	109	D	
	PM	Northwest	0.64	Average delay (sec) 95th percentile queue (m) Level of service (LOS) 69 44 E 45 128 D 82 513 F 31 87 C 64 513 E 53 70 D 49 109 D 40 116 C 64 349 E 53 280 D 53 280 D 53 280 D 32 57 C 20 202 B 46 103 D 35 280 C 65 492 E 40 76 C 18 103 B 62 149 E 48 492 D 30 227 C 14 124 A 58 72 E		
		West	1.11	64	349	E
		Overall	1.11	54	349	Level of service n) E D F C E D C E D C E D C E D C E D C B D C B D C B D C B C A E D C B C B C B C B E B C B E B C B E B C B E B C B C B C C
Old Pittwater Road/ Pittwater	AM	South	0.93	53	280	D
		East	0.53	32	57	С
		North	0.75	20	202	В
		West	0.93	46	103	D
		Overall	0.93	35	280	С
Road (signalised)		South	0.98	65	492	E
		East	0.71	40	76	С
	PM	North	0.72	18	103	В
		West	1.00	62	43 128 D 82 513 F 31 87 C 64 513 E 53 70 D 49 109 D 40 116 C 64 349 E 53 280 D 32 57 C 20 202 B 46 103 D 35 280 C 65 492 E 40 76 C 18 103 B 62 149 E 48 492 D 30 227 C 14 124 A 58 72 E 25 227 B 33 321 C 21 191 B 59 245 E	
		Overall	1.00	48	492	Level of service (LOS) E D F C E D C E D C E D C B D C B C B C B C B E D C B C B E D C B E B C B C B C B C B C B C B C B E
		South	0.72	30	227	С
	0.1.4	Northwest	0.58	14	124	А
Old Pittwater	Alvi	North	0.55	58	72	E
Road/		Overall	0.72	25	227	В
Street		South	0.83	33	321	С
Old Pittwater Road/ Beacon Hill Road (signalised) Old Pittwater Road/ Pittwater Road (signalised) Old Pittwater Road/ Condamine Street (signalised)	DM	Northwest	0.58	21	191	В
	PIVI	North	Designed of generation (DOS) Average delay (sec) Designed frequence (m) Leven (LC) 0.92 69 44 E 0.81 45 128 C 1.05 82 513 F 0.87 31 87 C 0.65 53 70 C 0.65 53 70 C 0.64 40 116 C 1.11 64 349 E 0.64 40 116 C 1.11 54 349 E 0.93 53 280 C 0.75 20 202 E 0.93 35 280 C 0.93 35 280 C 0.93 35 280 C 0.75 20 202 E 0.75 20 202 E 0.71 40 76 C 0.72 18 <t< td=""><td>E</td></t<>	E		
		Overall	0.86	36	321	С

Table 5.4: Future Intersection Operating Conditions

Overall, the intersections would generally continue to operate at the same levels of service with only minor increases to peak period average delays predicted when compared with existing conditions of delay up to five and three seconds per vehicle for the intersections of Old Pittwater Road/ Beacon Hill Road and Old Pittwater Road/ Pittwater Road respectively.

As the intersection of Beacon Hill Road/ Old Pittwater Road is already operating at capacity in the AM peak under existing conditions, any additional traffic would impact the operation.

It is also recognised that the peak hour PP generated traffic volumes remain low when compared with existing peak hour traffic volumes (no more than 2.3 per cent of existing traffic), as detailed in Table 5.5.



Table 5.5: Traffic Contributions of PP

			AM pea	ak	PM peak			
Peak	Intersection	Existing traffic	PP traffic	PP traffic contribution (%)	Existing traffic	PP traffic	PP traffic contribution (%)	
	Old Pittwater Road/ Beacon Hill Road	2,514	58	2.3	2,732	33	1.2	
AM	Old Pittwater Road/ Pittwater Road	3,884	51	1.3	3,934	29	0.7	
	Old Pittwater Road/ Condamine Street	3,465	62	1.8	3,856	38	1.0	

Summary

The additional development traffic volumes through each of the surrounding intersections is not expected to be any more than two vehicle movements per minute during the weekday morning and evening peak hours.

When compared to existing traffic volumes near the site, the additional traffic generated by the proposed development is not expected to compromise the safety and function of the surrounding road network.



6. Conclusion

Based on the analysis and discussions presented within this report, the following conclusions are made:

- i The PP seeks to amend Schedule 1 Additional Permitted Uses of Warringah Local Environmental Plan 2011 to permit standalone business premises and office premises.
- ii The amendment will allow the reuse of the existing office components of two buildings on site, currently approved as IN1-General Industrial under LEP 2011, to allow the existing office space to be used as office/ business premises independent of any warehouse/ manufacturing type uses.
- iii The site is well served by public transport services, including several high frequency bus services along Pittwater Road near Warringah Mall.
- iv The proposal generates a DCP 2011 parking requirement of 536 car parking spaces.
- v The site would be able to accommodate the parking requirements of the PP on-site.
- vi The existing car park access via Old Pittwater Road and on-site loading facility, remain appropriate for the PP.
- vii The PP is required to provide at least 56 bicycle lockers/ secured rails for staff and 13 bicycle rails for visitors to be in accordance with the minimum requirements of the DCP 2011.
- viii The proposed bicycle lockers/ rails, bicycle end of trip facilities and motorcycle parking spaces and locations will be detailed during the subsequent DA stage.
- ix The PP is expected to generate 301 and 351 movements in the AM and PM peak hours respectively.
- x Considering the traffic currently generated by the existing uses on the site, the PP is anticipated to generate a net increase of 119 and 71 vehicle movements in the AM and PM peak hours respectively.
- xi The PP will result in no change in level of service of the intersections of Old Pittwater Road/ Beacon Hill Road and Old Pittwater Road/ Pittwater Road.
- xii As the intersection of Beacon Hill Road/ Old Pittwater Road is already operating at capacity in the AM peak under existing conditions, any additional traffic would impact the operation.
- xiii The PP traffic represents a minor overall impact, representing a relatively small portion of the existing traffic volumes (no more than 2.3 per cent).
- xiv The impact of the traffic associated with the PP could be reduced with the provision of various measures (such as implementation of a Green Travel Plan) to reduce reliance on car travel.





Appendix A

Survey Results













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Appendix B

SIDRA INTERSECTION Results





MOVEMENT SUMMARY

Site: 1 [1 Beacon Hill Road/ Old Pittwater Road - AM]

♦♦ Network: N101 [AM **Network Existing**]

Beacon Hill Road/ Old Pittwater Road

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network Cycle Time - User-Given)

Move	Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back Vehicles	of Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South	: Roge	r Street											
1b	L3	46	2.3	46	2.3	0.921	71.3	LOS F	5.7	40.5	1.00	1.06	18.0
1a	L1	128	2.5	128	2.5	0.921	68.8	LOS E	6.1	43.5	1.00	1.06	23.2
3a	R1	25	0.0	25	0.0	0.921	68.7	LOS E	6.1	43.5	1.00	1.06	13.0
Appro	ach	200	2.1	200	2.1	0.921	69.4	LOS E	6.1	43.5	1.00	1.06	21.1
North	East: C	Old Pittwater	Road										
24a	L1	73	4.3	73	4.3	0.392	29.9	LOS C	10.7	77.4	0.92	0.79	27.7
25	T1	449	3.5	449	3.5	0.774	41.5	LOS C	17.2	123.3	0.96	0.95	19.3
26	R2	124	0.8	124	0.8	0.774	58.4	LOS E	17.2	123.3	1.00	1.08	23.0
Appro	bach	646	3.1	646	3.1	0.774	43.5	LOS D	17.2	123.3	0.96	0.96	21.1
North	West: E	Beacon Hill I	Road										
27	L2	395	0.0	395	0.0	1.027	101.6	LOS F	67.5	472.8	1.00	1.29	13.4
29a	R1	96	0.0	96	0.0	1.027	100.1	LOS F	67.5	472.8	1.00	1.29	18.7
29	R2	903	0.1	903	0.1	1.027	58.4	LOS E	67.5	472.8	0.97	1.04	23.4
Appro	bach	1394	0.1	1394	0.1	1.027	73.5	LOS F	67.5	472.8	0.98	1.13	19.8
South	West:	Old Pittwate	r Road										
30	L2	204	0.0	204	0.0	0.142	5.6	LOS A	1.2	8.5	0.23	0.57	45.3
31	T1	202	9.4	202	9.4	0.846	53.9	LOS D	10.9	82.7	1.00	1.01	11.6
Appro	bach	406	4.7	406	4.7	0.846	29.7	LOS C	10.9	82.7	0.61	0.79	27.0
All Ve	hicles	2646	1.7	2646	1.7	1.027	59.1	LOS E	67.5	472.8	0.92	1.03	20.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.1 % Number of Iterations: 5 (maximum specified: 10)

Move	Movement Performance - Pedestrians												
Mov		Demand	Average	Level of	Average Back	of Queue	Prop.	Effective					
ID	Description	Flow	Delay	Service	Pedestrian	Distance	Queued	Stop Rate					
		ped/h	sec		ped	m		per ped					
P1	South Full Crossing	53	28.2	LOS C	0.1	0.1	0.75	0.75					
P6	NorthEast Full Crossing	53	25.3	LOS C	0.1	0.1	0.71	0.71					
P7	NorthWest Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94					
P7S	NorthWest Slip/Bypass Lane Crossing	53	29.7	LOS C	0.1	0.1	0.77	0.77					
All Pedestrians		211	31.9	LOS D			0.79	0.79					

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 2 [2 Old Pittwater Road/ Pittwater Road - AM]

♦♦ Network: N101 [AM Network Existing]

Old Pittwater Road/ Pittwater Road/ Winbourne Road

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network Cycle Time - User-Given)

Move	Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Total	l Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back Vehicles	of Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
0 "	B	veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South	: Pittwa	ater Road											
1	L2	47	8.9	47	8.9	0.427	27.3	LOS B	3.1	23.7	0.72	0.63	17.7
2	T1	1158	8.6	1158	8.6	0.929	53.0	LOS D	36.8	276.5	0.97	1.13	18.1
Appro	ach	1205	8.6	1205	8.6	0.929	52.0	LOS D	36.8	276.5	0.96	1.11	18.1
East:	Winbou	urne Road											
4	L2	88	17.9	88	17.9	0.511	34.1	LOS C	7.4	55.9	0.84	0.73	22.6
5	T1	301	1.7	301	1.7	0.511	30.5	LOS C	7.8	55.9	0.84	0.71	16.9
6	R2	1	100.0	1	100. 0	0.511	34.1	LOS C	7.8	55.9	0.84	0.69	24.2
Appro	ach	391	5.7	391	5.7	0.511	31.3	LOS C	7.8	55.9	0.84	0.71	18.6
North	: Pittwa	ter Road											
7	L2	44	0.0	44	0.0	0.722	19.0	LOS B	27.7	202.2	0.77	0.71	29.9
8	T1	1560	5.4	1560	5.4	0.722	15.6	LOS B	27.7	202.8	0.77	0.71	29.4
9	R2	300	3.2	300	3.2	0.735	46.3	LOS D	13.0	93.7	0.98	1.09	14.1
Appro	ach	1904	4.9	1904	4.9	0.735	20.5	LOS B	27.7	202.8	0.81	0.77	26.6
West:	Old Pit	ttwater Roa	ad										
10	L2	156	7.4	153	7.6	0.625	34.4	LOS C	13.7	99.1	0.84	0.76	21.9
11	T1	259	1.2	255	1.2	0.893	35.8	LOS C	13.7	99.1	0.87	0.82	19.6
12	R2	188	0.6	185	0.6	0.893	57.1	LOS E	13.5	95.2	1.00	1.06	15.2
Appro	ach	603	2.6	<mark>593</mark> ^{N1}	2.7	0.893	42.1	LOS C	13.7	99.1	0.90	0.88	18.5
All Ve	hicles	4103	5.7	<mark>4093</mark> N1	5.8	0.929	34.0	LOS C	36.8	276.5	0.87	0.88	21.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.1 % Number of Iterations: 5 (maximum specified: 10)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians											
Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Bac Pedestrian	k of Queue Distance	Prop. Queued	Effective Stop Rate			
		ped/n	sec		ped	m		per pea			
P1	South Full Crossing	53	37.1	LOS D	0.1	0.1	0.86	0.86			
P2	East Full Crossing	53	13.0	LOS B	0.1	0.1	0.51	0.51			
P3	North Full Crossing	53	38.8	LOS D	0.1	0.1	0.88	0.88			
P4	West Full Crossing	53	28.2	LOS C	0.1	0.1	0.75	0.75			
All Peo	destrians	211	29.3	LOS C			0.75	0.75			

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement.
Site: 3 [3 Condamine Street/ Old Pittwater Road - AM]

Condamine Street/ Old Pittwater Road

Signals - Fixed Time Isolated Cycle Time = 130 seconds (User-Given Cycle Time)

Mover	ment F	Performance	- Vehic	les							
Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average
שו	IVIOV	veh/h	HV %	Sath v/c	sec	Service	venicies veh	Distance	Queuea	per veh	Speed km/h
South:	Conda	mine Street									
1a	L1	448	2.1	0.704	27.8	LOS B	20.7	148.2	0.89	0.84	38.3
2	T1	1259	6.4	0.704	30.0	LOS C	30.1	222.5	0.87	0.78	36.3
Approa	ach	1707	5.3	0.704	29.4	LOS C	30.1	222.5	0.87	0.80	36.9
North:	Condar	nine Street									
8	T1	1359	9.0	0.487	6.9	LOS A	16.6	124.3	0.43	0.39	52.2
9b	R3	282	1.5	0.558	43.3	LOS D	14.0	99.1	0.89	0.97	29.1
Approa	ach	1641	7.7	0.558	13.2	LOS A	16.6	124.3	0.51	0.49	45.9
NorthW	Vest: Ol	d Pittwater Ro	bad								
27b	L3	34	15.6	0.528	59.6	LOS E	9.1	67.2	0.96	0.80	24.7
29a	R1	279	4.2	0.528	57.9	LOS E	9.4	68.0	0.96	0.80	28.9
Approa	ach	313	5.4	0.528	58.1	LOS E	9.4	68.0	0.96	0.80	28.5
All Veh	icles	3661	6.4	0.704	24.6	LOS B	30.1	222.5	0.72	0.66	38.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ment Performance - Pedestria	ns						
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	t of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	North Full Crossing	53	59.3	LOS E	0.2	0.2	0.96	0.96
P7	NorthWest Full Crossing	53	24.7	LOS C	0.1	0.1	0.62	0.62
P7S	NorthWest Slip/Bypass Lane Crossing	53	20.5	LOS C	0.1	0.1	0.56	0.56
All Peo	destrians	158	34.8	LOS D			0.71	0.71

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Organisation: GTA CONSULTANTS | Processed: Tuesday, February 13, 2018 11:38:34 AM Project: \\gta.com.au\projectfiles\ProjectFilesSyd\N10800-10899\N108881 114-120 Old Pittwater Road, Brookvale Planning Proposal\Modelling \171214sid-N108881 114-120 Old Pittwater Road, Brookvale.sip7

Site: 1 [1 Beacon Hill Road/ Old Pittwater Road - PM]

♦♦ Network: N102 [PM Network Existing]

Beacon Hill Road/ Old Pittwater Road

Signals - Fixed Time Coordinated Cycle Time = 110 seconds (User-Given Phase Times)

Move	ement	Performa	nce - \	/ehicle	s								
Mov	OD	Demand	Flows	Arrival	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective A	Average
ID	Mov	Iotal	HV	Iotal	HV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South	: Roge	r Street											
1b	L3	59	1.8	59	1.8	0.647	54.2	LOS D	9.4	66.1	0.99	0.83	21.3
1a	L1	249	0.0	249	0.0	0.647	52.1	LOS D	9.9	69.8	0.99	0.83	26.7
3a	R1	61	3.4	61	3.4	0.647	52.2	LOS D	9.9	69.8	0.99	0.83	15.8
Appro	ach	369	0.9	369	0.9	0.647	52.4	LOS D	9.9	69.8	0.99	0.83	24.6
North	East: C	Old Pittwater	Road										
24a	L1	35	6.1	35	6.1	0.403	30.6	LOS C	12.7	93.9	0.86	0.75	27.6
25	T1	268	6.3	268	6.3	0.403	26.9	LOS B	12.7	93.9	0.86	0.75	24.9
26	R2	279	1.5	279	1.5	0.913	72.8	LOS F	15.4	109.4	1.00	1.14	19.7
Appro	ach	582	4.0	582	4.0	0.913	49.1	LOS D	15.4	109.4	0.93	0.94	21.6
North	West: I	Beacon Hill	Road										
27	L2	189	0.6	189	0.6	0.640	39.9	LOS C	16.4	115.2	0.92	0.83	24.2
29a	R1	28	0.0	28	0.0	0.640	38.5	LOS C	16.4	115.2	0.92	0.83	30.4
29	R2	395	0.3	395	0.3	0.640	40.2	LOS C	16.4	115.2	0.90	0.82	28.1
Appro	ach	613	0.3	613	0.3	0.640	40.0	LOS C	16.4	115.2	0.91	0.82	27.2
South	West:	Old Pittwate	r Road	l									
30	L2	869	0.2	869	0.2	0.681	10.8	LOS A	20.1	141.2	0.62	0.76	41.7
31	T1	443	2.4	443	2.4	1.091	152.3	LOS F	46.1	329.0	1.00	1.73	4.7
Appro	bach	1313	1.0	1313	1.0	1.091	58.6	LOS E	46.1	329.0	0.75	1.09	20.2
All Ve	hicles	2877	1.4	2877	1.4	1.091	51.9	LOS D	46.1	329.0	0.85	0.97	22.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.9 % Number of Iterations: 8 (maximum specified: 10)

Move	ment Performance - Pedestria	ns						
Mov	Description	Demand	Average	Level of	Average Back	c of Queue	Prop.	Effective
ID	Description	Flow	Delay	Service	Pedestrian	Distance	Queued	Stop Rate
		ped/h	sec		ped	m		per ped
P1	South Full Crossing	53	27.0	LOS C	0.1	0.1	0.70	0.70
P6	NorthEast Full Crossing	53	36.9	LOS D	0.1	0.1	0.82	0.82
P7	NorthWest Full Crossing	53	43.8	LOS E	0.1	0.1	0.89	0.89
P7S	NorthWest Slip/Bypass Lane	53	19.2	LOS B	0.1	0.1	0.59	0.59
	Crossing							
All Pe	destrians	211	31.7	LOS D			0.75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Site: 2 [2 Old Pittwater Road/ Pittwater Road - PM]

♦♦ Network: N102 [PM Network Existing]

Old Pittwater Road/ Pittwater Road/ Winbourne Road

Signals - Fixed Time Coordinated Cycle Time = 110 seconds (Network Cycle Time - User-Given)

Move	ement	Performa	nce - \	/ehicles	5								
Mov ID	OD Mov	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back Vehicles	of Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
0 "	Ditt	veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South	: Pittwa	ater Road											
1	L2	101	2.1	101	2.1	0.546	22.3	LOS B	1.5	11.5	0.59	0.65	23.1
2	T1	1680	4.9	1680	4.9	0.976	66.6	LOS E	67.4	488.3	0.97	1.21	18.3
Appro	ach	1781	4.7	1781	4.7	0.976	64.1	LOS E	67.4	488.3	0.95	1.18	18.4
East:	Winbo	urne Road											
4	L2	103	1.0	103	1.0	0.672	41.9	LOS C	9.9	71.1	0.88	0.78	23.0
5	T1	328	4.2	328	4.2	0.672	37.3	LOS C	9.9	71.1	0.88	0.76	16.1
6	R2	1	100.0	1	100. 0	0.672	42.2	LOS C	9.8	71.6	0.88	0.75	23.1
Appro	ach	433	3.6	433	3.6	0.672	38.4	LOS C	9.9	71.6	0.88	0.77	18.1
North	: Pittwa	ter Road											
7	L2	26	4.0	26	4.0	0.436	16.7	LOS B	13.8	102.3	0.55	0.51	40.2
8	T1	997	6.5	997	6.5	0.436	11.1	LOS A	13.9	102.6	0.55	0.50	43.3
9	R2	166	4.4	166	4.4	0.711	59.2	LOS E	8.7	63.5	1.00	0.97	13.2
Appro	ach	1189	6.2	1189	6.2	0.711	18.0	LOS B	13.9	102.6	0.62	0.57	36.2
West:	Old Pi	ttwater Roa	ad										
10	L2	362	2.3	344	2.3	0.684	41.7	LOS C	20.6	146.8	0.98	0.87	21.8
11	T1	236	0.9	224	0.9	0.977	66.9	LOS E	20.6	146.8	0.99	1.11	14.6
12	R2	126	0.0	120	0.0	0.977	85.7	LOS F	20.0	140.8	1.00	1.23	12.5
Appro	ach	724	1.5	<mark>688</mark> ^{N1}	1.4	0.977	57.6	LOS E	20.6	146.8	0.99	1.01	17.1
All Ve	hicles	4127	4.5	<mark>4092</mark> ^{N1}	4.5	0.977	46.9	LOS D	67.4	488.3	0.85	0.93	21.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.9 % Number of Iterations: 8 (maximum specified: 10)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Move	ment Performance - Pedestri	ians						
Mov ID	Description	Demand Flow	Average Delay	Level of . Service	Average Bac Pedestrian	k of Queue Distance	Prop. Queued	Effective Stop Rate
		ped/fi	Sec		ped	III		per peu
P1	South Full Crossing	53	42.0	LOS E	0.1	0.1	0.87	0.87
P2	East Full Crossing	53	11.8	LOS B	0.1	0.1	0.46	0.46
P3	North Full Crossing	53	43.8	LOS E	0.1	0.1	0.89	0.89
P4	West Full Crossing	53	20.4	LOS C	0.1	0.1	0.61	0.61
All Peo	destrians	211	29.5	LOS C			0.71	0.71

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement.

Site: 3 [3 Condamine Street/ Old Pittwater Road - PM]

Condamine Street/ Old Pittwater Road

Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Mover	ment P	erformance	- Vehic	les							
Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average
U	Mov	lotal veh/h	HV %	Satn v/c	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed km/h
South:	Condar	nine Street	,,,	110			Von				
1a	L1	316	1.0	0.340	17.1	LOS B	9.8	72.6	0.56	0.71	43.0
2	T1	1462	5.9	0.835	37.1	LOS C	44.1	320.9	0.95	0.88	33.3
Approa	ach	1778	5.0	0.835	33.5	LOS C	44.1	320.9	0.88	0.85	35.0
North:	Condan	nine Street									
8	T1	1198	7.4	0.469	15.6	LOS B	20.3	142.3	0.58	0.52	44.8
9b	R3	143	0.7	0.574	64.7	LOS E	9.3	65.4	0.98	0.94	23.8
Approa	ach	1341	6.7	0.574	20.9	LOS B	20.3	142.3	0.62	0.57	40.9
NorthW	Vest: Ol	d Pittwater Ro	ad								
27b	L3	148	3.5	0.829	57.5	LOS E	31.3	222.0	0.99	0.92	25.6
29a	R1	802	0.7	0.829	55.8	LOS D	32.4	228.3	1.00	0.92	29.4
Approa	ach	951	1.1	0.829	56.1	LOS D	32.4	228.3	1.00	0.92	28.8
All Veh	icles	4069	4.7	0.835	34.6	LOS C	44.1	320.9	0.82	0.77	34.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ment Performance - Pedestria	ns						
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	t of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	North Full Crossing	53	48.2	LOS E	0.2	0.2	0.83	0.83
P7	NorthWest Full Crossing	53	25.9	LOS C	0.1	0.1	0.61	0.61
P7S	NorthWest Slip/Bypass Lane Crossing	53	21.8	LOS C	0.1	0.1	0.56	0.56
All Peo	destrians	158	31.9	LOS D			0.67	0.67

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Site: 1 [1 Beacon Hill Road/ Old Pittwater Road - AM - Existing + Dev]

♦ Network: N101 [AM Network Existing + Dev]

Beacon Hill Road/ Old Pittwater Road

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network Cycle Time - User-Given)

Move	ement	Performar	nce - \	/ehicle	s								
Mov	OD	Demand	Flows	Arrival	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective A	Average
ID	Mov	Iotal	ΗV	Iotal	HV	Sath	Delay	Service	venicies	Distance	Queued	Stop Rate	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South	: Roge	r Street											
1b	L3	46	2.3	46	2.3	0.921	71.3	LOS F	5.7	40.5	1.00	1.06	18.0
1a	L1	128	2.5	128	2.5	0.921	68.8	LOS E	6.1	43.5	1.00	1.06	23.2
3a	R1	25	0.0	25	0.0	0.921	68.7	LOS E	6.1	43.5	1.00	1.06	13.0
Appro	bach	200	2.1	200	2.1	0.921	69.4	LOS E	6.1	43.5	1.00	1.06	21.1
North	East: C	Id Pittwater	Road										
24a	L1	73	4.3	73	4.3	0.411	30.7	LOS C	11.4	82.4	0.92	0.80	27.3
25	T1	475	3.3	475	3.3	0.811	42.8	LOS D	17.9	127.9	0.97	0.97	19.0
26	R2	124	0.8	124	0.8	0.811	60.2	LOS E	17.9	127.9	1.00	1.11	22.7
Appro	bach	672	3.0	672	3.0	0.811	44.7	LOS D	17.9	127.9	0.97	0.98	20.7
North	West: E	Beacon Hill F	Road										
27	L2	395	0.0	395	0.0	1.047	115.1	LOS F	73.2	512.8	1.00	1.36	12.2
29a	R1	96	0.0	96	0.0	1.047	113.7	LOS F	73.2	512.8	1.00	1.36	17.2
29	R2	929	0.1	929	0.1	1.047	64.3	LOS E	73.2	512.8	0.97	1.07	22.2
Appro	bach	1420	0.1	1420	0.1	1.047	81.8	LOS F	73.2	512.8	0.98	1.17	18.5
South	West:	Old Pittwate	r Road	l									
30	L2	207	0.0	207	0.0	0.143	5.5	LOS A	1.2	8.7	0.22	0.57	45.4
31	T1	208	9.1	208	9.1	0.871	56.0	LOS D	11.6	87.2	1.00	1.04	11.3
Appro	bach	416	4.6	416	4.6	0.871	30.9	LOS C	11.6	87.2	0.61	0.81	26.4
All Ve	hicles	2707	1.6	2707	1.6	1.047	63.8	LOS E	73.2	512.8	0.92	1.06	19.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.1 % Number of Iterations: 5 (maximum specified: 10)

Move	ment Performance - Pedestria	ns						
Mov	Description	Demand	Average	Level of /	Average Back	of Queue	Prop.	Effective
ID	Description	Flow	Delay	Service	Pedestrian	Distance	Queued	Stop Rate
		ped/h	sec		ped	m		per ped
P1	South Full Crossing	53	28.2	LOS C	0.1	0.1	0.75	0.75
P6	NorthEast Full Crossing	53	25.3	LOS C	0.1	0.1	0.71	0.71
P7	NorthWest Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P7S	NorthWest Slip/Bypass Lane	53	29.7	LOS C	0.1	0.1	0.77	0.77
	Crossing							
All Peo	destrians	211	31.9	LOS D			0.79	0.79

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Site: 2 [2 Old Pittwater Road/ Pittwater Road - AM - Existing + Dev]

Old Pittwater Road/ Pittwater Road/ Winbourne Road

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network Cycle Time - User-Given)

Move	ement	Performa	nce - \	/ehicles	s								
Mov ID	OD Mov	Demand Total	l Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back Vehicles	of Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South	: Pittwa	ater Road											
1	L2	47	8.9	47	8.9	0.428	27.3	LOS B	3.1	23.7	0.72	0.63	17.7
2	T1	1162	8.6	1162	8.6	0.933	53.9	LOS D	37.2	280.0	0.97	1.14	17.9
Appro	ach	1209	8.6	1209	8.6	0.933	52.9	LOS D	37.2	280.0	0.96	1.12	17.9
East:	Winbo	urne Road											
4	L2	88	17.9	88	17.9	0.532	35.0	LOS C	7.5	56.8	0.85	0.73	22.3
5	T1	301	1.7	301	1.7	0.532	31.4	LOS C	7.9	56.7	0.85	0.71	16.6
6	R2	1	100.0	1	100. 0	0.532	35.0	LOS C	7.9	56.7	0.85	0.70	23.9
Appro	ach	391	5.7	391	5.7	0.532	32.3	LOS C	7.9	56.8	0.85	0.72	18.3
North	: Pittwa	ter Road											
7	L2	44	0.0	44	0.0	0.718	18.4	LOS B	27.5	200.9	0.76	0.70	30.2
8	T1	1578	5.3	1578	5.3	0.718	15.0	LOS B	27.5	201.5	0.76	0.70	29.8
9	R2	318	3.0	318	3.0	0.746	46.0	LOS D	13.7	98.4	0.98	1.10	14.1
Appro	ach	1940	4.8	1940	4.8	0.746	20.1	LOS B	27.5	201.5	0.80	0.77	26.8
West:	Old Pi	ttwater Roa	ad										
10	L2	160	7.2	156	7.4	0.649	36.1	LOS C	14.2	102.8	0.86	0.77	21.4
11	T1	259	1.2	252	1.3	0.927	38.3	LOS C	14.3	100.5	0.89	0.84	18.9
12	R2	191	0.6	185	0.6	0.927	63.7	LOS E	14.3	100.5	1.00	1.12	14.2
Appro	ach	609	2.6	<mark>592</mark> ^{N1}	2.7	0.927	45.7	LOS D	14.3	102.8	0.92	0.91	17.7
All Ve	hicles	4149	5.7	4132 ^{N1}	5.7	0.933	34.5	LOS C	37.2	280.0	0.87	0.89	21.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.1 % Number of Iterations: 5 (maximum specified: 10)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Move	ment Performance	- Pedestrians						
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Bac Pedestrian ped	k of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	37.9	LOS D	0.1	0.1	0.87	0.87
P2	East Full Crossing	53	12.5	LOS B	0.1	0.1	0.50	0.50
P3	North Full Crossing	53	39.7	LOS D	0.1	0.1	0.89	0.89
P4	West Full Crossing	53	28.2	LOS C	0.1	0.1	0.75	0.75
All Peo	destrians	211	29.6	LOS C			0.75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement.

Site: 3 [3 Condamine Street/ Old Pittwater Road - AM - Existing + Dev]

Condamine Street/ Old Pittwater Road

Signals - Fixed Time Isolated Cycle Time = 130 seconds (User-Given Cycle Time)

Move	ment F	Performance	e - Vehic	les							
Mov ID	OD Mov	Demano Total veh/h	l Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South:	Conda	mine Street									
1a	L1	480	2.0	0.719	25.8	LOS B	20.8	148.9	0.88	0.84	39.1
2	T1	1259	6.4	0.719	30.8	LOS C	30.7	226.8	0.88	0.79	35.9
Approa	ach	1739	5.2	0.719	29.4	LOS C	30.7	226.8	0.88	0.81	36.9
North:	Condar	mine Street									
8	T1	1359	9.0	0.487	6.9	LOS A	16.6	124.3	0.43	0.39	52.2
9b	R3	300	1.4	0.582	44.0	LOS D	14.8	104.5	0.89	0.98	28.9
Approa	ach	1659	7.6	0.582	13.6	LOS A	16.6	124.3	0.51	0.50	45.5
NorthV	Vest: O	ld Pittwater R	oad								
27b	L3	38	13.9	0.554	59.9	LOS E	9.6	70.8	0.97	0.81	24.7
29a	R1	291	4.0	0.554	58.2	LOS E	9.9	71.6	0.97	0.81	28.8
Approa	ach	328	5.1	0.554	58.4	LOS E	9.9	71.6	0.97	0.81	28.4
All Veh	nicles	3726	6.3	0.719	24.9	LOS B	30.7	226.8	0.73	0.67	38.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ment Performance - Pedestria	ns						
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	North Full Crossing	53	59.3	LOS E	0.2	0.2	0.96	0.96
P7 P7S	NorthWest Full Crossing NorthWest Slip/Bypass Lane	53 53	25.3 21.1	LOS C LOS C	0.1 0.1	0.1 0.1	0.62 0.57	0.62 0.57
All Pe	destrians	158	35.2	LOS D			0.72	0.72

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Site: 1 [1 Beacon Hill Road/ Old Pittwater Road - PM - Existing + Dev]

♦ Network: N102 [PM Network Existing + Dev]

Beacon Hill Road/ Old Pittwater Road

Signals - Fixed Time Coordinated Cycle Time = 110 seconds (User-Given Phase Times)

Move	ement	Performar	nce - \	/ehicle	s								
Mov	OD	Demand	Flows	Arrival	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average
U	Mov	Iotai	ΗV	Iotal	ΗV	Sath	Delay	Service	venicies	Distance	Queued	Stop Rate	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South	: Roge	r Street											
1b	L3	59	1.8	59	1.8	0.650	54.3	LOS D	9.5	66.6	0.99	0.83	21.3
1a	L1	249	0.0	249	0.0	0.650	52.2	LOS D	9.8	69.5	0.99	0.83	26.6
3a	R1	61	3.4	61	3.4	0.650	52.3	LOS D	9.8	69.5	0.99	0.83	15.8
Appro	ach	369	0.9	369	0.9	0.650	52.5	LOS D	9.8	69.5	0.99	0.83	24.6
North	East: C	ld Pittwater	Road										
24a	L1	35	6.1	35	6.1	0.409	30.9	LOS C	13.0	95.9	0.86	0.75	27.5
25	T1	273	6.2	273	6.2	0.409	27.2	LOS B	13.0	95.9	0.86	0.75	24.8
26	R2	279	1.5	279	1.5	0.913	72.8	LOS F	15.4	109.4	1.00	1.14	19.7
Appro	ach	586	3.9	586	3.9	0.913	49.1	LOS D	15.4	109.4	0.93	0.94	21.5
North	West: E	Beacon Hill F	Road										
27	L2	189	0.6	189	0.6	0.644	40.0	LOS C	16.5	115.5	0.92	0.84	24.2
29a	R1	28	0.0	28	0.0	0.644	38.5	LOS C	16.5	115.5	0.92	0.84	30.4
29	R2	397	0.3	397	0.3	0.644	40.2	LOS C	16.5	115.5	0.90	0.82	28.1
Appro	ach	615	0.3	615	0.3	0.644	40.1	LOS C	16.5	115.5	0.91	0.82	27.1
South	West:	Old Pittwate	r Road	l									
30	L2	874	0.2	874	0.2	0.685	10.8	LOS A	20.3	142.6	0.63	0.76	41.6
31	T1	446	2.4	446	2.4	1.111	167.9	LOS F	48.9	349.4	1.00	1.81	4.3
Appro	ach	1320	1.0	1320	1.0	1.111	63.9	LOS E	48.9	349.4	0.75	1.12	19.1
All Ve	hicles	2891	1.4	2891	1.4	1.111	54.4	LOS D	48.9	349.4	0.85	0.98	21.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 15.1 % Number of Iterations: 10 (maximum specified: 10)

Move	ment Performance - Pedestria	ns						
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	27.0	LOS C	0.1	0.1	0.70	0.70
P6	NorthEast Full Crossing	53	36.9	LOS D	0.1	0.1	0.82	0.82
P7	NorthWest Full Crossing	53	43.8	LOS E	0.1	0.1	0.89	0.89
P7S	NorthWest Slip/Bypass Lane Crossing	53	19.2	LOS B	0.1	0.1	0.59	0.59
All Pe	destrians	211	31.7	LOS D			0.75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Site: 2 [2 Old Pittwater Road/ Pittwater Road - PM - Existing + Dev]

Old Pittwater Road/ Pittwater Road/ Winbourne Road

Signals - Fixed Time Coordinated Cycle Time = 110 seconds (Network Cycle Time - User-Given)

Move	ement	Performa	nce - \	/ehicles	5								
Mov ID	OD Mov	Demand Total	l Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back Vehicles	of Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South	: Pittwa	ater Road											
1	L2	101	2.1	101	2.1	0.547	22.3	LOS B	1.5	11.5	0.59	0.65	23.1
2	T1	1683	4.9	1683	4.9	0.977	67.5	LOS E	67.9	492.2	0.97	1.22	18.2
Appro	bach	1784	4.7	1784	4.7	0.977	64.9	LOS E	67.9	492.2	0.95	1.18	18.2
East:	Winbo	urne Road											
4	L2	104	1.0	104	1.0	0.708	43.0	LOS D	10.6	75.5	0.89	0.81	22.7
5	T1	344	4.0	344	4.0	0.708	38.4	LOS C	10.6	75.5	0.89	0.79	15.8
6	R2	1	100.0	1	100. 0	0.708	43.4	LOS D	10.5	75.9	0.89	0.78	22.7
Appro	bach	449	3.5	449	3.5	0.708	39.5	LOS C	10.6	75.9	0.89	0.79	17.7
North	: Pittwa	ater Road											
7	L2	26	4.0	26	4.0	0.437	16.7	LOS B	13.9	102.6	0.55	0.51	40.2
8	T1	999	6.5	999	6.5	0.437	11.1	LOS A	13.9	102.8	0.55	0.50	43.3
9	R2	168	4.4	168	4.4	0.720	59.5	LOS E	8.9	64.4	1.00	0.97	13.2
Appro	bach	1194	6.2	1194	6.2	0.720	18.1	LOS B	13.9	102.8	0.62	0.57	36.1
West:	Old Pi	ttwater Roa	ad										
10	L2	365	2.3	343	2.3	0.696	41.9	LOS C	20.9	148.6	0.98	0.87	21.8
11	T1	236	0.9	222	0.9	0.995	73.7	LOS F	20.9	146.9	0.99	1.15	13.7
12	R2	127	0.0	120	0.0	0.995	97.7	LOS F	20.9	146.9	1.00	1.30	11.3
Appro	bach	728	1.4	685 ^{N1}	1.4	0.995	61.9	LOS E	20.9	148.6	0.99	1.04	16.3
All Ve	hicles	4156	4.4	<mark>4112</mark> ^{N1}	4.5	0.995	48.0	LOS D	67.9	492.2	0.85	0.94	20.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 15.1 % Number of Iterations: 10 (maximum specified: 10)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Move	ment Performance	- Pedestrians						
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Bac Pedestrian ped	k of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	42.0	LOS E	0.1	0.1	0.87	0.87
P2	East Full Crossing	53	11.8	LOS B	0.1	0.1	0.46	0.46
P3	North Full Crossing	53	43.8	LOS E	0.1	0.1	0.89	0.89
P4	West Full Crossing	53	20.4	LOS C	0.1	0.1	0.61	0.61
All Peo	destrians	211	29.5	LOS C			0.71	0.71

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement.

Site: 3 [3 Condamine Street/ Old Pittwater Road - PM - Existing + Dev]

Condamine Street/ Old Pittwater Road

Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Move	ment P	erformance	- Vehic	les							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South:	Condar	mine Street									
1a	L1	322	1.0	0.345	16.8	LOS B	9.9	72.7	0.57	0.71	43.1
2	T1	1462	5.9	0.822	35.0	LOS C	42.7	311.1	0.93	0.86	34.1
Approa	ach	1784	5.0	0.822	31.7	LOS C	42.7	311.1	0.87	0.83	35.8
North:	Condan	nine Street									
8	T1	1198	7.4	0.580	16.6	LOS B	27.9	195.0	0.61	0.55	44.1
9b	R3	145	0.7	0.635	66.7	LOS E	9.6	67.6	1.00	0.95	23.4
Approa	ach	1343	6.7	0.635	22.0	LOS B	27.9	195.0	0.65	0.59	40.2
NorthV	Vest: Ol	d Pittwater Ro	ad								
27b	L3	152	3.5	0.818	55.6	LOS D	30.9	219.5	0.99	0.91	26.0
29a	R1	807	0.7	0.818	54.0	LOS D	32.1	226.1	0.99	0.91	29.8
Approa	ach	959	1.1	0.818	54.2	LOS D	32.1	226.1	0.99	0.91	29.3
All Veh	nicles	4086	4.6	0.822	33.8	LOS C	42.7	311.1	0.82	0.77	34.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ment Performance - Pedestria	ns						
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	t of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	North Full Crossing	53	47.3	LOS E	0.2	0.2	0.82	0.82
P7	NorthWest Full Crossing	53	25.3	LOS C	0.1	0.1	0.60	0.60
P7S	NorthWest Slip/Bypass Lane Crossing	53	21.2	LOS C	0.1	0.1	0.55	0.55
All Peo	destrians	158	31.3	LOS D			0.66	0.66

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Site: 1 [1 Beacon Hill Road/ Old Pittwater Road - AM - Existing + Dev - Ban RT]

♦♦ Network: N101 [AM Network Existing + Dev - Ban RT]

Beacon Hill Road/ Old Pittwater Road

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network Cycle Time - User-Given)

Move	ement	Performar	nce - V	/ehicle	s								
Mov	OD	Demand	Flows	Arrival	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average
ID	Mov	Total	ΗV	Total	ΗV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		ner veh	km/h
South	: Roge	r Street		Voni/H	,,,		000		, von				
1b	L3	46	2.3	46	2.3	0.810	63.4	LOS E	4.6	32.6	1.00	0.92	19.4
1a	L1	128	2.5	128	2.5	0.810	61.0	LOS E	5.0	35.5	1.00	0.92	24.7
Appro	ach	175	2.4	175	2.4	0.810	61.6	LOS E	5.0	35.5	1.00	0.92	23.5
North	East: C	ld Pittwater	Road										
24a	L1	73	4.3	73	4.3	0.411	31.0	LOS C	11.6	83.5	0.94	0.81	27.2
25	T1	475	3.3	475	3.3	0.811	42.9	LOS D	17.9	127.9	0.97	0.97	19.0
26	R2	124	0.8	124	0.8	0.811	60.2	LOS E	17.9	127.9	1.00	1.11	22.7
Appro	ach	672	3.0	672	3.0	0.811	44.9	LOS D	17.9	127.9	0.97	0.98	20.7
North	West: E	Beacon Hill F	Road										
27	L2	395	0.0	395	0.0	1.025	100.0	LOS F	69.7	488.3	1.00	1.27	13.5
29	R2	1025	0.1	1025	0.1	1.025	62.9	LOS E	69.7	488.3	0.97	1.06	22.5
Appro	ach	1420	0.1	1420	0.1	1.025	73.2	LOS F	69.7	488.3	0.98	1.12	19.7
South	West:	Old Pittwate	r Road										
30	L2	207	0.0	207	0.0	0.144	5.7	LOS A	1.4	9.5	0.23	0.57	45.3
31	T1	208	9.1	208	9.1	0.871	56.0	LOS D	11.6	87.2	1.00	1.04	11.3
Appro	ach	416	4.6	416	4.6	0.871	30.9	LOS C	11.6	87.2	0.61	0.81	26.4
All Ve	hicles	2682	1.6	2682	1.6	1.025	58.8	LOS E	69.7	488.3	0.92	1.02	20.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.2 % Number of Iterations: 5 (maximum specified: 10)

Move	ment Performance - Pedestria	ns						
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	28.2	LOS C	0.1	0.1	0.75	0.75
P6	NorthEast Full Crossing	53	25.3	LOS C	0.1	0.1	0.71	0.71
P7	NorthWest Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P7S	NorthWest Slip/Bypass Lane Crossing	53	39.7	LOS D	0.1	0.1	0.89	0.89
All Peo	destrians	211	34.4	LOS D			0.82	0.82

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Site: 2 [2 Old Pittwater Road/ Pittwater Road - AM - Existing + Dev - Ban RT]

♦♦ Network: N101 [AM Network Existing + Dev - Ban RT]

Old Pittwater Road/ Pittwater Road/ Winbourne Road

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network Cycle Time - User-Given)

Move	ement	Performa	nce - \	/ehicles	s								
Mov ID	OD Mov	Demand Total	l Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back Vehicles	of Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South	n: Pittwa	ater Road											
1	L2	47	8.9	47	8.9	0.425	26.6	LOS B	3.1	23.6	0.71	0.62	18.0
2	T1	1187	8.4	1187	8.4	0.925	51.2	LOS D	37.2	279.3	0.97	1.11	18.4
Appro	bach	1235	8.4	1235	8.4	0.925	50.3	LOS D	37.2	279.3	0.96	1.10	18.4
East:	Winbou	urne Road											
4	L2	88	17.9	88	17.9	0.533	35.0	LOS C	7.5	56.8	0.85	0.73	22.3
5	T1	301	1.7	301	1.7	0.533	31.4	LOS C	7.9	56.7	0.85	0.71	16.6
6	R2	1	100.0	1	100. 0	0.533	35.0	LOS C	7.9	56.7	0.85	0.70	23.9
Appro	bach	391	5.7	391	5.7	0.533	32.3	LOS C	7.9	56.8	0.85	0.72	18.3
North	: Pittwa	iter Road											
7	L2	44	0.0	44	0.0	0.718	18.4	LOS B	27.5	200.9	0.76	0.70	30.2
8	T1	1578	5.3	1578	5.3	0.718	15.0	LOS B	27.5	201.5	0.76	0.70	29.8
9	R2	318	3.0	318	3.0	0.776	48.2	LOS D	14.2	101.9	1.00	1.13	13.7
Appro	bach	1940	4.8	1940	4.8	0.776	20.5	LOS B	27.5	201.5	0.80	0.77	26.6
West	: Old Pi	ttwater Roa	ad										
10	L2	160	7.2	158	7.3	0.657	36.6	LOS C	14.7	106.2	0.88	0.78	21.2
11	T1	259	1.2	255	1.2	0.939	39.4	LOS C	14.8	104.3	0.91	0.86	18.7
12	R2	191	0.6	187	0.6	0.939	66.6	LOS E	14.8	104.3	1.00	1.15	13.8
Appro	bach	609	2.6	600 ^{N1}	2.6	0.939	47.1	LOS D	14.8	106.2	0.93	0.93	17.4
All Ve	hicles	4175	5.6	<mark>4165</mark> ^{N1}	5.7	0.939	34.3	LOS C	37.2	279.3	0.87	0.88	21.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.2 % Number of Iterations: 5 (maximum specified: 10)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Move	ment Performance - Pedestria	ans						
Mov ID	Description	Demand Flow ped/b	Average Delay	Level of . Service	Average Bac Pedestrian	k of Queue Distance	Prop. Queued	Effective Stop Rate
D1	South Full Crossing	52 ped/11	32.0		0 1	0.1	0.97	
PI	South Full Crossing	53	37.9	LOS D	0.1	0.1	0.87	0.87
P2	East Full Crossing	53	12.5	LOS B	0.1	0.1	0.50	0.50
P3	North Full Crossing	53	39.7	LOS D	0.1	0.1	0.89	0.89
P4	West Full Crossing	53	27.4	LOS C	0.1	0.1	0.74	0.74
All Peo	destrians	211	29.4	LOS C			0.75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Site: 1 [1 Beacon Hill Road/ Old Pittwater Road - PM - Existing + Dev - Ban RT]

Beacon Hill Road/ Old Pittwater Road

Signals - Fixed Time Coordinated Cycle Time = 110 seconds (Network Cycle Time - User-Given)

Movement Performance - Vehicles													
Mov	OD	Demand	Flows	Arrival	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective .	Average
ID	Mov	Total	ΗV	Total	ΗV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Roger Street													
1b	L3	59	1.8	59	1.8	0.920	75.1	LOS F	9.6	67.4	1.00	1.09	17.4
1a	L1	249	0.0	249	0.0	0.920	72.7	LOS F	10.2	71.5	1.00	1.09	22.6
Appro	ach	308	0.3	308	0.3	0.920	73.2	LOS F	10.2	71.5	1.00	1.09	21.7
North	NorthEast: Old Pittwater Road												
24a	L1	35	6.1	35	6.1	0.295	22.5	LOS B	11.8	87.0	0.80	0.71	31.7
25	T1	273	6.2	273	6.2	0.295	18.7	LOS B	11.8	87.0	0.80	0.71	29.3
26	R2	279	1.5	279	1.5	0.592	56.8	LOS E	14.2	100.9	1.00	0.99	22.7
Appro	ach	586	3.9	586	3.9	0.592	37.1	LOS C	14.2	100.9	0.89	0.84	25.0
North	West: E	Beacon Hill F	Road										
27	L2	189	0.6	189	0.6	0.895	62.2	LOS E	23.0	161.8	1.00	1.02	18.8
29	R2	425	0.2	425	0.2	0.895	55.7	LOS D	23.0	161.8	0.99	0.92	24.1
Appro	ach	615	0.3	615	0.3	0.895	57.7	LOS E	23.0	161.8	1.00	0.95	22.5
South	West:	Old Pittwate	r Road										
30	L2	874	0.2	874	0.2	0.759	12.2	LOS A	20.6	144.2	0.75	0.81	40.7
31	T1	446	2.4	446	2.4	0.792	40.6	LOS C	23.2	165.8	0.98	0.92	14.3
Appro	ach	1320	1.0	1320	1.0	0.792	21.8	LOS B	23.2	165.8	0.83	0.85	32.6
All Ve	hicles	2829	1.4	2829	1.4	0.920	38.4	LOS C	23.2	165.8	0.90	0.89	26.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 6.4 % Number of Iterations: 10 (maximum specified: 10)

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	16.4	LOS B	0.1	0.1	0.55	0.55
P6	NorthEast Full Crossing	53	45.6	LOS E	0.1	0.1	0.91	0.91
P7	NorthWest Full Crossing	53	35.3	LOS D	0.1	0.1	0.80	0.80
P7S	NorthWest Slip/Bypass Lane Crossing	53	27.7	LOS C	0.1	0.1	0.71	0.71
All Pedestrians		211	31.2	LOS D			0.74	0.74

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Site: 2 [2 Old Pittwater Road/ Pittwater Road - PM - Existing + Dev - Ban RT]

♦♦ Network: N102 [PM Network Existing + Dev - Ban RT]

Old Pittwater Road/ Pittwater Road/ Winbourne Road

Signals - Fixed Time Coordinated Cycle Time = 110 seconds (Network Cycle Time - User-Given)

Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Total	Flows HV	Arrival Total	Flows HV	Deg. Satn	Average Delay	Level of Service	95% Back Vehicles	of Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Pittwater Road													
1	L2	101	2.1	101	2.1	0.568	22.3	LOS B	1.5	11.5	0.59	0.65	23.1
2	T1	1742	4.7	1742	4.7	1.009	86.8	LOS F	78.5	567.8	1.00	1.35	15.1
Appro	bach	1843	4.6	1843	4.6	1.009	83.2	LOS F	78.5	567.8	0.97	1.32	15.2
East:	Winbo	urne Road											
4	L2	104	1.0	104	1.0	0.682	41.3	LOS C	10.3	73.5	0.88	0.78	23.2
5	T1	344	4.0	344	4.0	0.682	36.7	LOS C	10.3	73.5	0.88	0.76	16.3
6	R2	1	100.0	1	100. 0	0.682	41.7	LOS C	10.2	73.9	0.88	0.75	23.2
Appro	ach	449	3.5	449	3.5	0.682	37.8	LOS C	10.3	73.9	0.88	0.77	18.3
North	: Pittwa	ter Road											
7	L2	26	4.0	26	4.0	0.444	17.3	LOS B	14.2	105.1	0.57	0.52	39.7
8	T1	999	6.5	999	6.5	0.444	11.7	LOS A	14.3	105.4	0.57	0.51	42.7
9	R2	168	4.4	168	4.4	0.772	61.8	LOS E	9.1	66.0	1.00	1.00	12.8
Appro	bach	1194	6.2	1194	6.2	0.772	18.9	LOS B	14.3	105.4	0.63	0.58	35.5
West:	Old Pi	ttwater Roa	ad										
10	L2	365	2.3	365	2.3	0.706	38.2	LOS C	21.1	150.2	0.95	0.86	22.9
11	T1	236	0.9	236	0.9	1.009	78.6	LOS F	23.8	167.1	0.98	1.19	13.1
12	R2	127	0.0	127	0.0	1.009	104.2	LOS F	23.8	167.1	1.00	1.35	10.7
Appro	bach	728	1.4	728	1.4	1.009	62.8	LOS E	23.8	167.1	0.97	1.05	16.1
All Ve	hicles	4215	4.4	4215	4.4	1.009	56.6	LOS E	78.5	567.8	0.87	1.00	18.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 6.4 % Number of Iterations: 10 (maximum specified: 10)

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Bac Pedestrian ped	k of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	41.1	LOS E	0.1	0.1	0.87	0.87
P2	East Full Crossing	53	12.3	LOS B	0.1	0.1	0.47	0.47
P3	North Full Crossing	53	42.9	LOS E	0.1	0.1	0.88	0.88
P4	West Full Crossing	53	20.4	LOS C	0.1	0.1	0.61	0.61
All Peo	destrians	211	29.2	LOS C			0.71	0.71

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement.

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Appendix B

Notes of Pre-Lodgement Meeting

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Notes of Pre-lodgement meeting Planning Proposal

Application No:	PLM2016/0065
Meeting Date:	6 July 2016
Property Address:	114-120 Old Pittwater Road, Brookvale (Lot 1 and Lot 3 in DP 868761)
Attendees for Council:	Maxine Szeto, Strategic Planner Kathryn Fadeev, Senior Strategic Planner Phil Jemison, Manager Urban Planning
Attendees for applicant:	Jeff Evans, JW Evans Projects Myall Stevens, RPS
Owner	Primewest Funds Ltd

1. INTRODUCTION

These notes are based on submitted documentation and discussions in the pre-lodgement meeting held on 6 July 2016. The comments provided are intended as a guide should you decide to proceed with an application to lodge a planning proposal.

2. PROPOSAL

- (a) A meeting was held to discuss the preparation of a planning proposal to amend the planning controls within Warringah Local Environmental Plan (WLEP 2011). Specifically to:
 - i. Amend Schedule 1 Additional Permitted Uses to include office premises and business premises at Nos. 114-120 Old Pittwater Road, Brookvale as additional permitted uses with development consent.
- (b) The pre-lodgement application was accompanied by the following documentation:
 - i. Letter of submission from RPS, dated 22 June 2016.
- (c) The proposal seeks to allow office and business premises on the site independently of any industrial/warehouse/manufacturing uses.

3. SITE CHARACTERISTICS

(a) The subject site consists of two parcels of land which are owned by Primewest Funds Ltd, as seen on Figure 1 on page 2. As indicated in the letter of submission, the two parcels of land and current uses are as follows:

Civic Centre, 725 Pittwater Road Dee Why NSW 2099 ABN 57 284 295 198 t. 02 9942 2111 f. 02 9971 4522

- i. No. 114 Old Pittwater Road Two storey office and warehouse building with approximately 255 car spaces and loading dock. This site is currently tenanted by Avon Products Pty Ltd.
- ii. No. 120 Old Pittwater Road Two to five storey office, warehouse and manufacturing building including approximately 8,516m² of warehouse/manufacturing, 4,876m² of office, 260 car parking spaces and loading dock. This site is currently tenanted by Fujifilm Australia and other small warehouse/office tenants.
- (b) The subject site has a total site area of approximately 4.2 hectares, as seen on Figure 1 below.
- (c) The subject site has frontage to Old Pittwater Road and adjoins the Council owned public reserve to the rear, which forms part of Allenby Park.
- (d) The subject site benefits from a right of carriageway over the adjoining site at No. 108 Old Pittwater Road, Brookvale.
- (e) The subject site adjoins industrial/warehouse units with ancillary office in the immediate vicinity of the site.



The Subject Site

Figure 1: The Subject Site

4. LOCAL PLANNING CONTEXT

4.1 Warringah Local Environmental Plan 2011 (WLEP 2011)

(a) The subject land is current zoned IN1 General Industrial under WLEP 2011, as shown on Figure 2 below.



The Subject Site



(b) Details of the IN1 General Industrial zone are:

Zone IN1 General Industrial

- 1 Objectives of zone
- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area.
- · To enable a range of compatible community and leisure uses.
- · To maintain the industrial character of the land in landscaped settings.
- 2 Permitted without consent
- Nil

3 Permitted with consent

Boat building and repair facilities; Depots; Freight transport facilities; Garden centres; General industries; Hardware and building supplies; Industrial retail outlets; Industrial training facilities; Light industries; Liquid fuel depots; Neighbourhood shops; Places of public worship; Roads; Storage premises; Take away food and drink premises; Timber yards; Vehicle body repair workshops; Vehicle repair stations; Vehicle sales or hire premises; Warehouse or distribution centres; Any other development not specified in item 2 or 4.

4 Prohibited

Advertising structures; Agriculture; Air transport facilities; Amusement centres; Animal boarding or training establishments; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Commercial premises; Correctional centres; Crematoria; Eco-tourist facilities; Educational establishments; Entertainment facilities; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Forestry; Function centres; Health services facilities; Heavy industrial storage establishments; Heavy industries; Highway service centres; Home-based child care; Home businesses; Home occupations; Home occupations (sex services); Information and education facilities; Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Research stations; Residential accommodation; Restricted premises; Rural industries; Tourist and visitor accommodation; Veterinary hospitals; Water recreation structures; Wharf or boating facilities

- (c) The proposed additional uses for business and office premises are not permissible, as commercial premises (which include business and office premises) are prohibited in this zone.
- (d) Other local planning/development controls of note that currently apply to the site include:
 - i. Maximum building height- 11m
 - ii. Minimum Lot Size Map 4,000m²
 - iii. Land Slip Risk Map- Areas A, B and C
 - iv. Bushfire Prone Land
 - v. Flood affected Probable maximum flood
 - vi. Aboriginal Potential Area 1
 - vii. DCP Side setbacks Merit assessment
 - viii. DCP Rear boundary Merit assessment
 - ix. DCP Land adjoining public open space Applicable
 - x. DCP Wildlife Corridors Applicable
 - xi. DCP Native Vegetation Applicable
 - xii. Stormwater within 2m of Council pits and pipes
- (e) A range of State Government planning policies and guidelines are also applicable to the proposal. These have not been considered as part of this pre-lodgement advice but would need to be assessed within any future planning proposal. A list of State Government policy considerations is provided within Attachment 1.
- (f) The applicant is encouraged to consult with nearby landowners to ensure that they are well informed about the proposal.

5. STRATEGIC PLANNING CONTEXT

5.1 Brookvale Structure Plan

(a) The State Government's most recent Metropolitan Plan titled 'A Plan for Growing Sydney', identifies Brookvale - Dee Why as a Strategic Centre for the region. As such, Council is currently preparing a Structure Plan for the Brookvale area, taking into consideration the already identified role of the Dee Why Town Centre and the important regional employment role of Brookvale.

- (b) The site is located within the Brookvale Structure Plan investigation area. The structure plan will guide the future development of the area. It will identify the most appropriate future land-use mix, taking into account future growth needs of Brookvale-Dee Why (both jobs and housing) and environmental, social, economic, traffic, transport and accessibility issues.
- (c) Until the structure plan is finalised, the proposal is potentially prejudicial to future desired outcomes for land near the site and could potentially undermine the strategic direction and viability of the Brookvale centre.
- (d) Council anticipates the draft Structure Plan will be on public exhibition by the end of 2016. It is strongly recommended that the Applicant becomes involved in the structure planning process as it progresses. An option also exists for the Applicant to prepare a submission during the exhibition period of the Brookvale Structure Plan for Council's consideration.
- (e) Council is unable to support planning proposals within the investigation area at this time given the significant investment in developing a structure plan for the Brookvale- Dee Why Strategic centre. It is important that the Brookvale area is reviewed holistically.

5. OTHER OPTIONS FOR CONSIDERATION

- (a) The Applicant has advised that a government agency (Services NSW) intends to lease part of the No. 120 Old Pittwater Road, Brookvale, which is currently tenanted by Fujifilm Australia.
- (b) Services NSW have advised the Applicant that they are proposing to use the existing building for a service centre of approximately 1,000m². The intent is to provide a one stop shop for the likes of attaining drivers' licenses, vehicle registrations, fisheries licenses, birth and death certificates etc.
- (c) Following the PLM, the Applicant advised that they had spoken to Services NSW who suggested that a public administration building would be the appropriate definition for Services NSW to operate on the subject site.
- (d) Public administration buildings are permissible with development consent in the IN1 General Industrial zone under WLEP 2011.
- (e) The Applicant may wish to explore this idea and lodge a development application for the purposes of a public administration building.



6. CONCLUSION

- (a) Council will not support isolated planning proposals within the investigation area until completing the Brookvale Structure Plan.
- (b) As a key stakeholder, it is recommended that the Applicant becomes involved in the structure planning process as it progresses and makes a submission during the exhibition period.
- (c) Any future planning proposal must address the provision of required technical studies and supporting documents as outlined in Attachment 1.
- (d) It is strongly recommended that the Applicant consults with neighbours regarding this proposal before finalising a planning proposal submission to Council.
- (e) The Applicant may wish to explore the idea of preparing a development application for the purposes of a public administration building.
- (f) Should you seek clarification of any of the points made herein please do not hesitate to contact Maxine Szeto, Strategic Planner on 9942 2111.

Phil Jemison Manager Urban Planning 13/07/16

ATTACHMENT 1

Should you choose to pursue preparing a planning proposal, the following provides an outline of the information that would be required to support the application:

1. Provision of Technical Studies and Supporting Documents

The following studies and supporting documents shall be prepared to accompany the planning proposal:

- (a) A Planning Proposal prepared in accordance with the Department of Planning and Environment's 'Guide to Preparing Local Environmental Plans' and 'Guide to Preparing Planning Proposals'.
- (b) A Preliminary Traffic Assessment, prepared by a qualified transport/traffic consultant.
- (c) A Preliminary Economic Assessment, prepared by a qualified economic consultant.

Failure to provide the required supporting documentation may delay assessment of any planning proposal or result in its refusal without further notice.

2. Justification for the Planning Proposal

The planning proposal shall include:

- (a) Justification of the proposal against the Section 117 Ministerial Directions, including:
 - i. 1.1 Business and Industrial Zones
 - ii. 3.4 Integrating Land Use and Transport
 - iii. 4.3 Flood Prone Land
 - iv. 4.4 Planning for Bushfire Protection
 - v. 6.1 Approval and Referral Requirements
 - vi. 6.2 Reserving Land for Public Purposes
 - vii. 6.3 Site Specific Provisions
 - viii. 7.1 Implementation of A Plan for Growing Sydney
- (b) An assessment demonstrating consistency with 'A Plan for Growing Sydney' (December 2014) and the draft North East Subregional Strategy.
- (c) A statement indicating the relationship with Council's 'Community Strategic Plan 2023'.
- (d) An assessment demonstrating consistency with the Warringah Local Environmental Plan 2011, Warringah Development Control Plan 2011 and all relevant State Environmental Planning Policies.
- (e) An assessment of the likely impacts of the Planning Proposal and proposed management measures, including the drafting of site specific provisions as necessary.

3. Planning Proposal Fees for the 2016/17 Financial Year

The following fees apply at the time of preparing this advice:

- (a) Planning Proposal Pre-lodgement Meeting: \$1,250 per meeting
- (b) Planning Proposal Fee (minor category): \$25,000 per application
- (c) Advertising Fee (minor): \$1,500 per application

(d) Additional studies post gateway - Cost recovery

4. Pre-Gateway Notification (see the Department of Planning and Environment's Guide to Preparing LEPs)

Following formal lodgement of your application Council will consider your proposal. The application will be publicly notified for approximately two weeks and any submissions will be considered. This would not be a statutory exhibition.

If the application is supported by Council, the Planning Proposal will be forwarded to the Department of Planning and Environment. The application will be assessed under the Department of Planning and Environment's Gateway Determination process.

Consultation with public authorities and the community (statutory exhibition period) will occur again following the Gateway determination and guided by any conditions contained therein.

5. Privacy and Personal Information

You are advised that Council is obliged to make Planning Proposal applications and supporting documents available for public inspection. We do this via the Customer Service Centre and by placing copies of the documents on Council's website.