1294 – 1300 Pittwater Road & 2-4 Albert Street, Narrabeen

Transport Impact Assessment

Prepared for:

Jetosa Pty Ltd (ABN 43809288606)

17 July 2019

The Transport Planning Partnership

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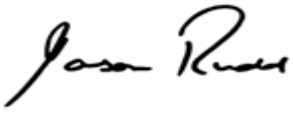
Version: V03

Date: 17 July 2019

TTPP Reference: 18371

Quality Record

Version	Date	Prepared by	Reviewed by	Approved by	Signature
V01	26/11/18	Lalaine Malaluan & Aston Pei	Oasika Faiz	Jason Rudd	
V02	6/12/18	Lalaine Malaluan & Aston Pei	Oasika Faiz	Jason Rudd	
V03	17/07/19	Lalaine Malaluan	Jason Rudd	Jason Rudd	

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1 Introduction

1.1 Background

This transport impact assessment (TIA) has been prepared by The Transport Planning Partnership (TTPP) on behalf of Jetosa Pty Ltd to accompany a planning proposal for the site at 1294 – 1300 Pittwater Road and 2-4 Albert Street, Narrabeen.

The planning proposal seeks to amend the planning controls with the Warringah Local Environmental Plan (WLEP 2011) to:

- Allow for 'non-residential' uses to be permitted uses on the site (ie. 1294-1300 Pittwater Road and 2-4 Albert Street); and
- Amend the height of buildings to 11 metres.

Specifically, this TIA addresses the comments raised by the Northern Beaches Council (Council) following a pre-lodgement meeting for the planning proposal held in October 2016.

It is noted that since the pre-lodgement meeting the site of the planning proposal site has been extended to include 2 Albert Street, Narrabeen. This is consistent with the recommendations from Council regarding lot consolidation. The traffic and transport issues raised regarding site access arrangements, traffic generation and proximity to bus services and stops issues remain relevant and has been considered in this TIA.

1.2 Site Location

The subject site includes 1294 – 1300 Pittwater Road and 2-4 Albert Street, Narrabeen. It falls within the local government area of Northern Beaches Council.

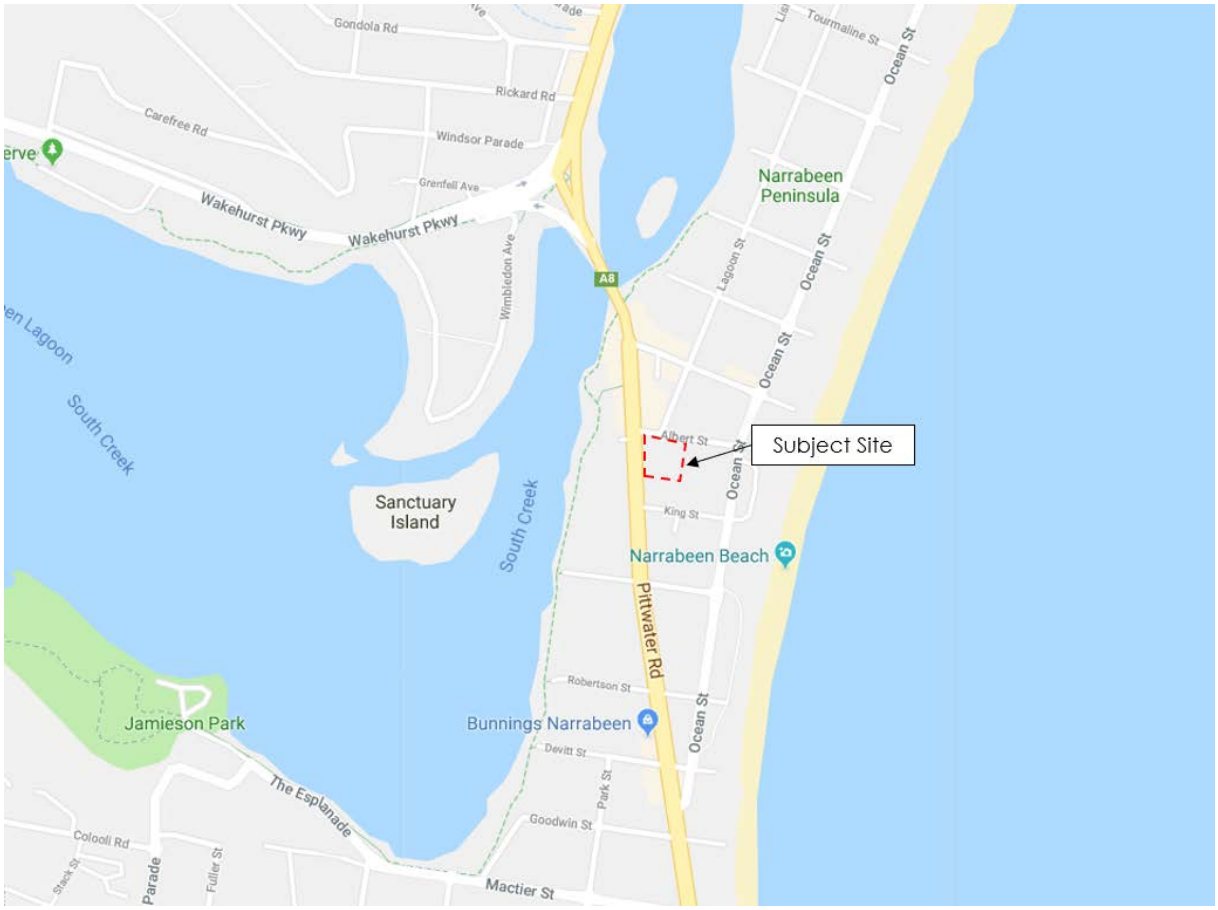
The site is bounded by Pittwater Road to the west, Albert Street to the north, Furlough House residential retirement village to the east and medium density residential apartment buildings to the south.

The site location and its surrounds are shown in Figure 1.1.

Currently, the site is occupied by four detached residential houses, an office building and a medical practice.

Land uses surroundings the site primarily comprise low to medium density residential dwellings and retail shops.

Figure 1.1: Site Locality



Basemap Source: Google Maps Australia

It is noted that recently operational B-Line services operate past the site along Pittwater Road, with a bus stop / interchange located on the northern side of the Albert Street intersection.

The Narrabeen B-Line commuter car park is located directly west of the site across Pittwater Road. Narrabeen Beach is located 250m east of the site.

1.3 Overview of Planning Proposal

The Planning Proposal seeks to amend the controls in the WLEP. An indictive master plan has been development for the site which includes the following:

- retention of the heritage residential cottage (2 Albert Street) for adaptive re-use
- construction of 4 new buildings with 3-4 storeys comprising:
  - 48 – 60 apartments
  - Commercial area of 1050 – 1150 m^2
- Basement car parking and service area.

Vehicle access to the basement parking area is proposed via Albert Street.

The remainder of the report is set out as follows:

- Chapter 2 discusses the existing conditions including a description of the subject site;
- Chapter 3 provides a brief description of the proposed development;
- Chapter 4 presents the findings of the transport impact assessment; and
- Chapter 5 presents the conclusions of the assessment.

2 Existing Conditions

2.1 Surrounding Road Network

2.1.1 Pittwater Road

Pittwater Road is a two-way State Road with a dual carriageway and bus lane on both sides of the road.

Pittwater Road is the primary route along the Northern Beaches between Mona Vale and Brookvale and extends in a north-south direction along the western boundary of the site.

On street parking is permitted along Pittwater Road outside of the bus lane operating hours which are:

- 6am – 10am Monday to Friday southbound
- 3pm – 7pm Monday to Friday northbound.

It is noted that RMS are currently investigating a proposal to extend clearway conditions along Pittwater Road at the site as part of the "Clearways Program".

The posted speed limit along Pittwater Road is 60km/hr in the vicinity of the site.

The site, which fronts Pittwater Road, currently has three vehicle access driveways to Pittwater Road. A bus stop is also located on the site's frontage to Pittwater Road in the southbound direction.

2.1.2 Albert Street

Albert Street is a local road that extends along the north boundary of the site in an east-west alignment.

At the intersection with Pittwater Road, Albert Street is effectively one way eastbound with left turn entry from Pittwater Road to Albert Street the only permitted turn. No access from Albert Street to Pittwater Road is permitted. This the section of Albert Street between Pittwater Road and Lagoon Street is effectively a one way (eastbound) roadway. Albert Street has a cul-de-sac at its eastern end and provides pedestrian access only to Narrabeen Beach.

Existing vehicular access to 1300 Pittwater Road 2 Albert Street and 4 Albert Street is provided off Albert Street. Four-hour restricted kerbside parking is provided between 8:30am and 6:00pm Monday to Friday on both sides of the road. The speed limit is posted as 50km/h.

No footpath is provided on site's frontage to Albert Street due in part to the steepness of the cross fall from the property line to the kerb line in front of 2 Albert Street.

2.1.3 Existing Traffic Volumes

TTPP has commissioned traffic surveys to record the existing volume of traffic at the following key intersections surrounding the site:

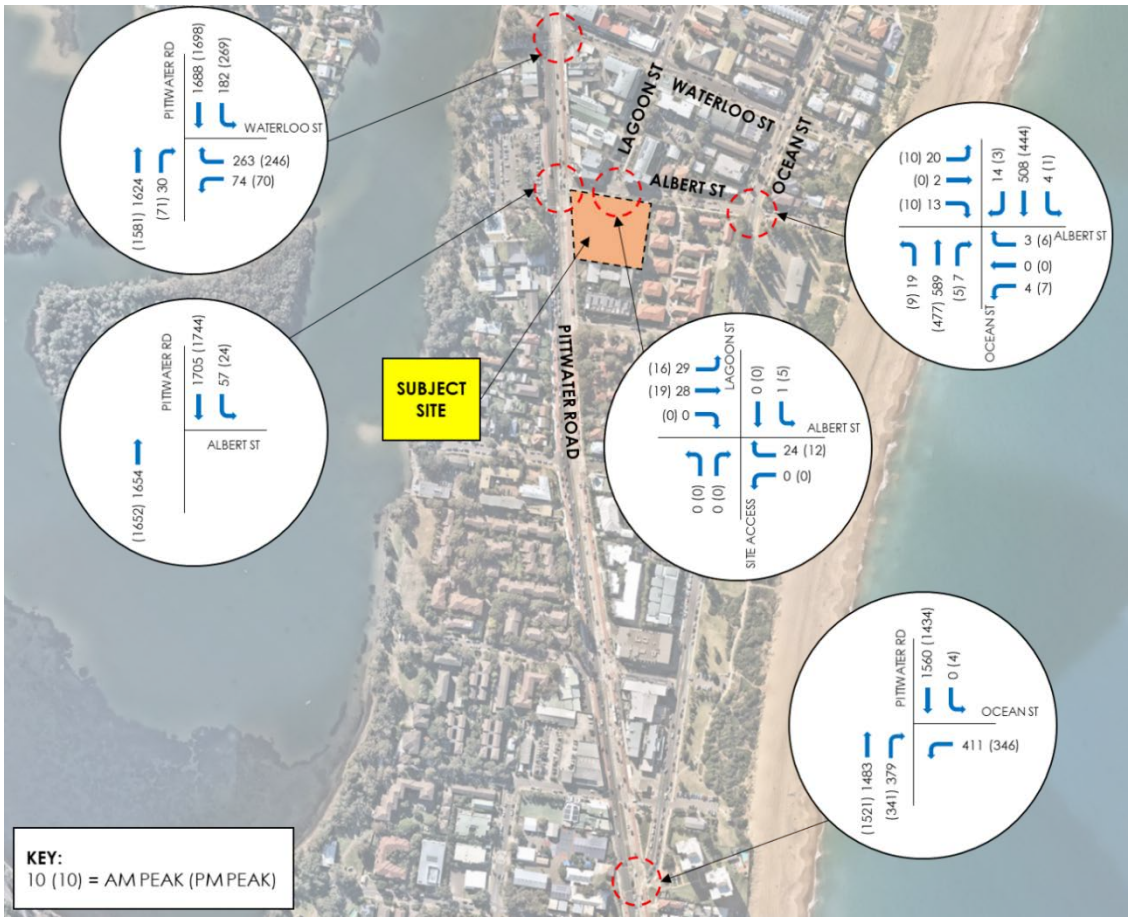
- Pittwater Road – Waterloo Street
- Pittwater Road – Albert Street
- Ocean Street – Albert Street
- Pittwater Road – Ocean Street

Traffic surveys were undertaken on Tuesday, 6 November 2018 between 6:30am and 9:30am and between 3:30pm and 6:30pm, and on Saturday from 11:00am to 2:00pm.

Existing traffic volumes at the intersection of Albert Street and Lagoon Street has been estimated based on the traffic counts on the adjacent intersections (i.e. Pittwater Road – Albert Street and Ocean Street – Albert Street

Figure 2.1 and Figure 2.2 present the peak hour turning traffic volumes at the surveyed key intersections.

Figure 2.1: Existing Weekday Peak Hour Traffic Volumes



Map Source: Nearmap

Figure 2.2: Existing Saturday Peak Hour Traffic Volumes

Map Source: Nearmap

2.2 Public Transport

An extensive number of bus services are available in the vicinity of the site. The nearest bus stop is located on the site's frontage to Pittwater Road and another some 60m north of the site on both sides of Pittwater Road.

Several bus services including express services operate from these stops and provide connections to all destinations north and south if Narrabeen between Palm Beach and Manly and the Sydney CBD. In addition to this, the B-Line services the bus stop located 100m north of the site on both sides of Pittwater Road. The B-Line is a frequent express service that provides connections between Mona Vale and Wynyard and operates between 4:30am until 12:30am.

A summary of the public transport services and respective frequencies in proximity to the site is shown in Table 2.1.

Table 2.1: Bus Services

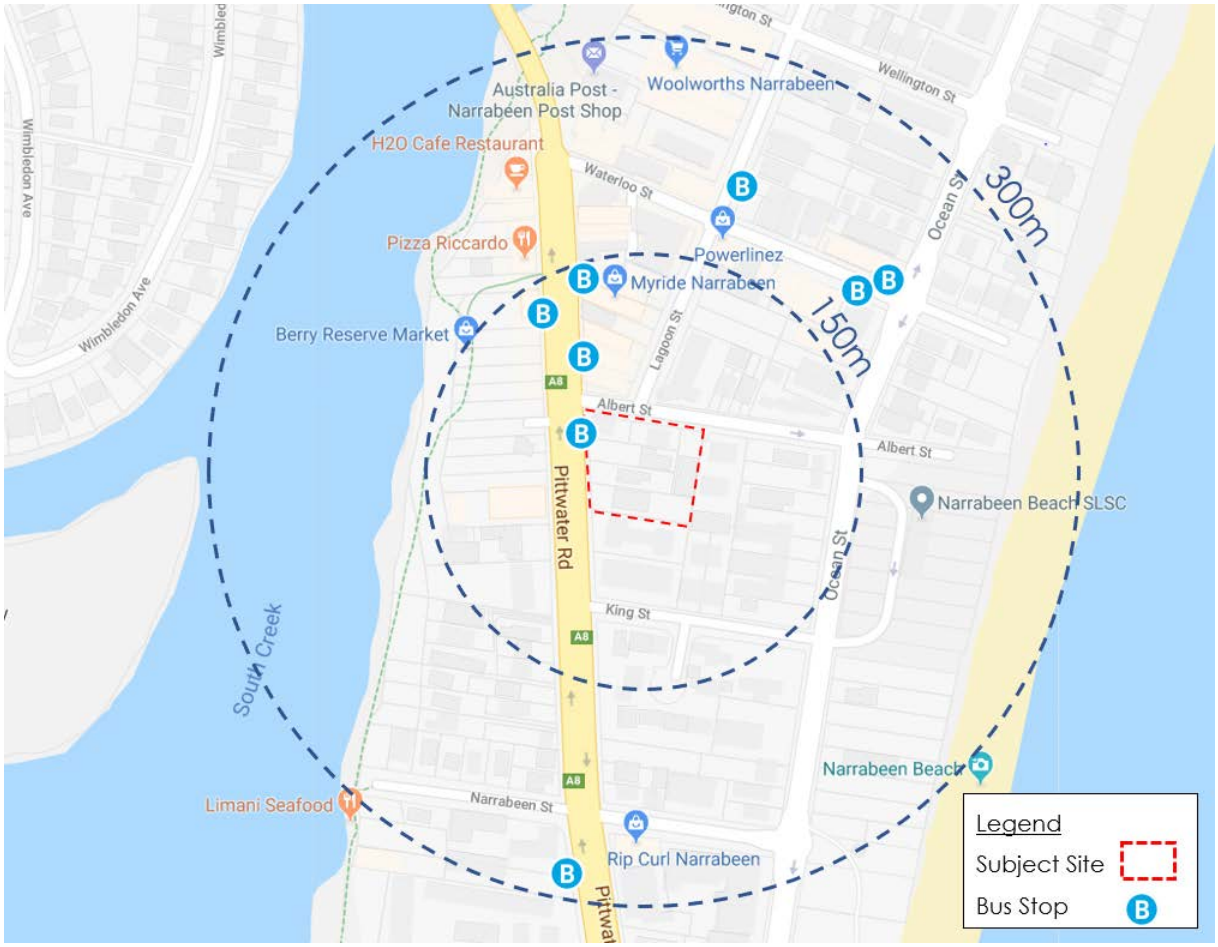
Route	Route Description	Site Proximity	Frequency	
			Weekday (Peak/Off-peak)	Saturday
182	Mona Vale to Narrabeen	60m	Hourly / Hourly	Hourly
185	Mona Vale to Warringah Mall via Warriewood		30-minutes / 30-minutes	30-minutes
199	Palm Beach to Manly		15-minutes / 15-minutes	30-minutes
E54	Mona Vale to Milsons Point		15-minutes / No service	No service
E60	Mona Vale to Chatswood		20-minutes[1] / No service	No service
B1	B-Line Mona Vale to City Wynyard	100m	10-minutes / 5-minutes	10-minutes
E83	North Narrabeen to City Wynyard		15-minutes[2] / No service	No service
E85	Mona Vale to City Wynyard via Warriewood		15-minutes[3] / No service	No service
E88	North Avalon Beach to City Wynyard		15-minutes[4] / No service	No service
E89	Avalon to City Wynyard		15-minutes[5] / No service	No service
L90	Palm Beach to City Wynyard		No service / Hourly	Hourly
151	Mona Vale to City QVB[6]		No service / Limited service	Limited service
188	Mona Vale to City Wynyard[6]		No service / Limited service	Limited service

Source: Transport for NSW (accessed 23/11/18)

Note: [1] Morning services Chatswood bound only. Afternoon services Mona Vale bound only.
[2] Morning services City bound only. Afternoon services North Narrabeen bound only.
[3] Morning services City bound only. Afternoon services Mona Vale bound only.
[4] Morning services City bound only. Afternoon services North Avalon Beach bound only.
[5] Morning services City bound only. Afternoon services Avalon Beach bound only.
[6] Limited services generally operate between 12:00am and 4:00am.

The site's proximity to public transport facilities is shown in Figure 2.3.

Figure 2.3: Site Proximity to Public Transport



Basemap Source: Google Maps Australia

2.3 Pedestrians and Cyclists

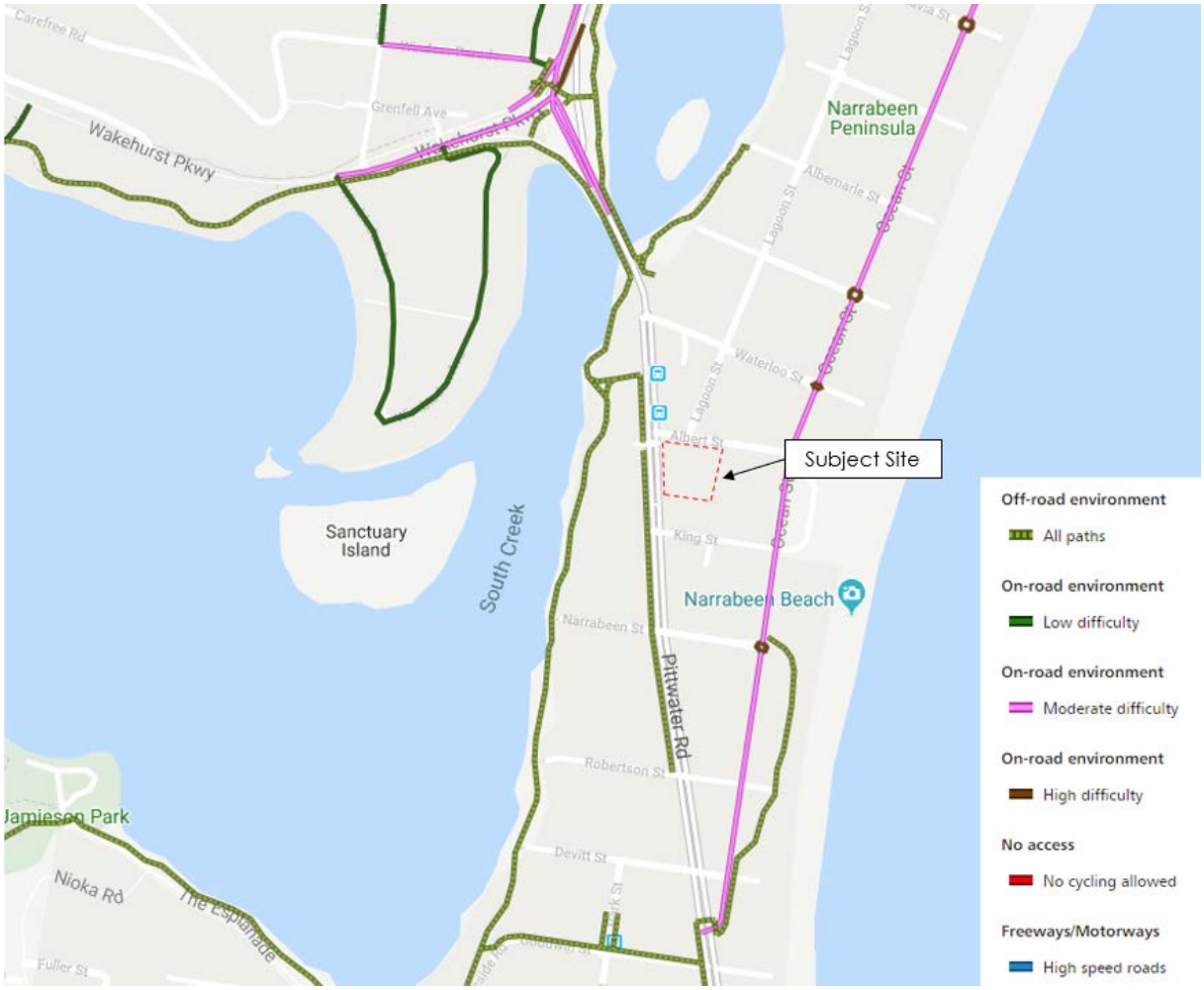
Pedestrian footpaths are generally provided on all surrounding streets to the subject site. The exception is on Albert Street between Pittwater Road and 4 Albert Street driveway access.

Formal pedestrian crossings are provided on Pittwater Road at its intersection with Albert Street and the B-Line commuter car park access. A zebra crossing is provided across Ocean Street on the southern leg of the intersection at Ocean Street which is located some 250m south-east of the site.

A shared path is provided on the western side of Pittwater Road which extends north towards Warriewood and south towards Collaroy. An on-road cycling route is also designated along Ocean Street east of the site.

The cycle routes in the vicinity of the site are illustrated in the Roads and Maritime Services Cycleway Finder as shown in Figure 2.4. This includes the popular Narrabeen Lake off road cycle / pathway.

Figure 2.4: Cycle Routes



Source: Roads and Maritime Services Cycleway Finder (last updated 08/06/18)

3 Proposed Development

3.1 Indicative Land Uses

As noted above, the planning proposal seeks to amend the WLEP controls to allow increased building heights and additional land uses to be provided on the site.

These amended controls have been represented by an indicative master plan for the site as shown in Figure 3.1.

Figure 3.1: Indicative Master Plan (prepared by GMU Urban Design & Architecture)

Diagram showing preferred masterplan (indicative scheme).

An indicative land use yield for the master plan has been estimated as follows:

- Residential: 48 – 60 apartments with a mix of 1, 2, 3 and 4 bedroom apartments
- Commercial GFA = 1,050m^2 – 1,150m2 made up of approximately say:
  - Café : 20m^2
  - Office: up to 240m^2
  - Medical: 800 – 1,130m^2 (6-10 doctors)

For the purpose of preparing a traffic assessment of the planning proposal the higher land use yield has been assumed with a residential mix as follows:

- 1 bedroom - 14 apartments
- 2 bedroom – 31 apartments
- 3 bedroom – 15 apartments
- Total - 60 apartments

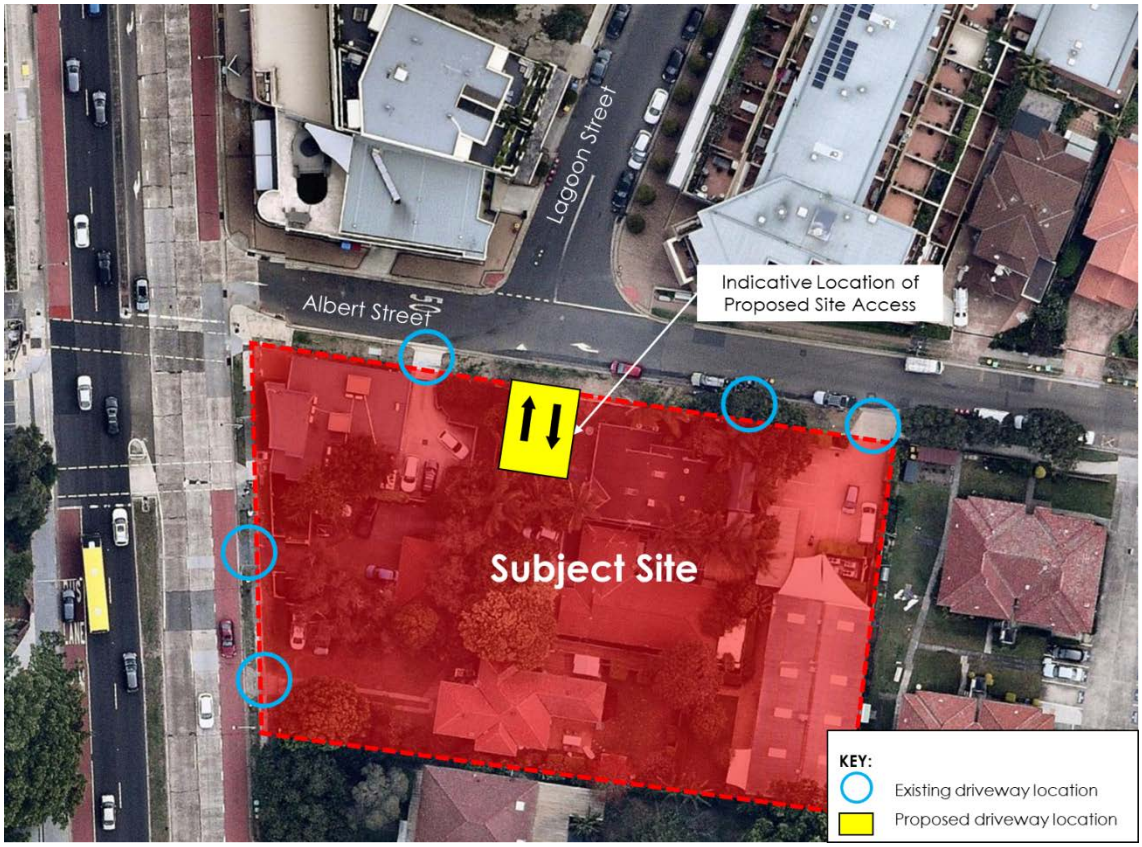
3.2 Vehicle Access Arrangements

A two-way vehicular access for the site is proposed to be provided at Alfred Street at the intersection of Alfred Street and Lagoon Street. This access would provide access to the basement car park and service vehicle area.

Figure 3.1 shows the indicative location of the proposed driveway at Albert Street.

The existing driveways to Pittwater Road and Albert Street would be removed and reinstated as kerb and gutter.

Figure 3.2: Proposed Driveway Location



Map Source: Nearmap

4 Assessment of Planning Proposal

4.1 Traffic Assessment

4.1.1 Traffic Generation

As advised by the Council, the traffic generation of the residential land use has been estimated based on rates provided in the Roads and Maritime Services (Roads and Maritime) *Guide to Traffic Generating Developments 2008* for the medium density dwellings.

The following weekday peak hour trip rates are stipulated in the Guide for medium density residential flat building:

- Smaller unit and flats (up to two bedrooms) – 0.4 to 0.5 vehicle trips per dwelling
- Larger unit and town houses (three or more bedrooms) – 0.5 to 0.65 vehicle trips per dwelling

It is noted that the residential unit mix is not yet known at this stage. For this assessment, a trip generation rate of 0.65 vehicle trips per unit has been applied on the total number of residential units to yield a more conservative result.

Since the Roads and Maritime Guide does not specify rates for the Saturday peak hour trip generation, it has been assumed that the Saturday development peak traffic generation would be similar to the weekday peak trips.

The medical centre traffic generation rate was sourced from recent survey data as presented in the Roads and Maritime Services *Trip Generation Surveys Medical Centres Analysis Report 2015*. The café land use is expected to primarily serve walk-in pedestrian traffic and is not expected to generate vehicle traffic.

The trip generation estimate for the development is summarised in Table 4.1.

Table 4.1: Traffic Generation

Land Use	Size	RMS Trip Rate			Peak Two-way Trips		
		AM	PM	Sat	AM	PM	Sat
Residential	60 units	0.65 trips per unit	0.65 trips per unit	0.65 trips per unit	39	39	39
Café	20m²	-	-	-	-	-	-
Office	240m²	1.6 trips per 100m² GFA	1.2 trips per 100m² GFA	0	4	3	0
Medical Centre	1,130m²	4 trips per 100m² GFA	4.6 trips per 100m² GFA	5.1 trips per 100m² GFA	45	52	48
Total					**88**	**94**	**97**

Table 4.1 indicates the development will likely generate 88 trips, 94 trips and 97 trips in the AM, PM and Saturday peak periods respectively.

It is noted that the existing site land uses generate traffic during the peak periods. Observations of the existing medical centre indicate that the facility generates in the order of 5 - 10 vehicles / hour, the residential properties would generate in the order of 4 vehicle trips per peak hour and the commercial in the order of 2-3 vehicle trips / hour.

This would represent a net increase in site related traffic from existing to potential future situation of approximately 70 - 80 vehicles per hour.

However, for the purpose of this traffic assessment it has been assumed that the site currently doesn't generate traffic and any traffic associated with the indicative masterplan is additional to the road network.

4.1.2 Traffic Distribution

Various factors impact the traffic distribution patterns of developments such as the location of employment and residential precincts, the layout of arterial road network, usage patterns of the subject land use etc.

In the case of the subject site, traffic has been distributed based upon existing traffic patterns on the road network. Notably the traffic surveys indicate a northbound to southbound split of 50 to 50 percent in the morning peak, 50 to 50 percent in the afternoon peak and 50 to 50 percent in the Saturday peak.

In addition, typical inbound/outbound splits have been applied to the estimated two-way development traffic, as summarised in Table 4.2.

Table 4.2: Trip Distribution Based on Land Use

Land Use	AM		PM		Sat	
	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Residential	20%	80%	80%	20%	50%	50%
Café	50%	50%	50%	50%	50%	50%
Office	80%	20%	20%	80%	-	-
Medical Centre	50%	50%	50%	50%	50%	50%

4.1.3 Background Traffic Growth

In order to assess the potential future traffic implications of the indicative master plan, background traffic growth at a rate of 2% per annum has been assumed for a 10-year development scenario.

4.1.4 Traffic Implications

4.1.4.1 Assessment Criteria

The existing operation of the nearby intersections to the site have been assessed using SIDRA Intersection 8, a computer-based modelling package which assesses intersection performance under prevailing traffic conditions.

SIDRA calculates intersection performance measures such as 'average delay' that vehicles encounter and the level of service (LoS). SIDRA provides analysis of the operating conditions which can be compared to the performance criteria set out in Table 4.3.

Table 4.3: Level of Service Criteria for Intersection Operation

Level of Service	Average Delay (seconds per vehicle)	Traffic Signals, Roundabout	Give Way and Stop Signs
A	Less than 14	good operation	good operation
B	15 to 28	good with acceptable delays and spare capacity	acceptable delays and spare capacity
C	29 to 42	satisfactory	satisfactory, but accident study required
D	43 to 56	operating near capacity	near capacity and accident study required
E	57 to 70	at capacity At signals, incidents will cause excessive delays, roundabouts require other control mode	at capacity, requires other control mode
F	Greater than 71	unsatisfactory with excessive queuing	unsatisfactory with excessive queuing; requires other control mode

Source: Roads and Maritime Guide to Traffic Generating Developments, 2002

4.1.4.2 Modelled Scenarios

SIDRA intersection modelling has been carried out for the following intersections:

- Pittwater Road-Waterloo Street
- Albert Street-Lagoon Street
- Ocean Street-Albert Street
- Pittwater Road-Ocean Street.

SIDRA intersection modelling has been carried to assess the following scenarios:

- Existing Conditions
- Post Development (Existing Conditions plus development traffic)
- 10-year Base (future growth without development)

- 10-year Post Development (10-year Base plus development traffic)

4.1.4.3 *Traffic Modelling Results*

The results of the SIDRA modelling for each scenario are presented in Table 4.4 to Table 4.6.

Table 4.4: Weekday AM Peak Modelling Results

Intersection	Existing			Post Development			Future Base			Future Base + Development		
	Ave Delay (s)	LoS	Queue (m)	Ave Delay (s)	LoS	Queue (m)	Ave Delay (s)	LoS	Queue (m)	Ave Delay (s)	LoS	Queue (m)
Pittwater Road-Waterloo Street	13	A	199	13	A	204	14	A	313	14	A	320
Albert Street-Lagoon Street	5	A	1	6	A	1	5	A	1	6	A	1
Ocean Street-Albert Street	21	B	3	21	B	5	31	C	4	34	C	8
Pittwater Road-Ocean Street.	19	B	207	20	B	221	26	B	334	31	C	409

Table 4.5: Weekday PM Peak Modelling Results

Intersection	Existing			Post Development			Future Base			Future Base + Development		
	Ave Delay (s)	LoS	Queue (m)	Ave Delay (s)	LoS	Queue (m)	Ave Delay (s)	LoS	Queue (m)	Ave Delay (s)	LoS	Queue (m)
Pittwater Road-Waterloo Street	19	B	340	20	B	354	46	D	739	53	D	787
Albert Street-Lagoon Street	5	A	0	6	A	1	5	A	0	6	A	1
Ocean Street-Albert Street	14	A	1	14	A	2	18	B	1	19	B	3
Pittwater Road-Ocean Street.	15	B	199	16	B	199	34	C	679	36	C	679

Table 4.6: Existing Conditions Saturday Peak Modelling Results

Intersection	Existing			Post Development			Future Base			Future Base + Development		
	Ave Delay (s)	LoS	Queue (m)	Ave Delay (s)	LoS	Queue (m)	Ave Delay (s)	LoS	Queue (m)	Ave Delay (s)	LoS	Queue (m)
Pittwater Road-Waterloo Street	21	B	348	22	B	357	45	D	728	49	D	773
Albert Street-Lagoon Street	5	A	1	6	A	1	5	A	1	6	A	1
Ocean Street-Albert Street	16	B	3	17	B	5	21	B	4	24	B	7
Pittwater Road-Ocean Street.	16	B	175	17	B	197	20	B	267	23	B	319

4.1.4.4 Traffic Impact Summary

Based on the modelling results in Section 4.1.4.3, all modelled intersections operate at LoS B or better with acceptable delays in all peak periods for the existing conditions.

The modelled intersections continue to operate with the same level of service under existing with development conditions.

In the future base condition, all intersections operate satisfactorily with LoS C or better with the exception of Pittwater Road-Waterloo Street which operates at LoS D in the PM and Saturday peaks.

In the future base with development conditions, all intersections continue to operate satisfactorily with LoS C or better with the exception of Pittwater Road-Waterloo Street which remains at LoS D in the PM and Saturday peaks.

In summary, the analysis indicates that the surrounding road network can satisfactorily accommodate the additional traffic flows associated with background growth along with the traffic associated with the indicative master plan for the site.

4.2 Vehicle Access Arrangements

As shown in the indicative master plan (see Figure 3.1) it is proposed that a two-way entry / exit driveway be provided at Albert Street, opposite the Lagoon Street intersection.

The location of the vehicle access has been based on TTPP's assessment of the site access opportunities and constraints.

In considering a location for the site access, the following were considered:

- Avoidance where possible to providing vehicle access directly to / from Pittwater Road;
- Proximity to and providing an appropriate setback from the Pittwater Road / Albert Street intersection such as to generate potential queues out onto Pittwater Road;
- Achieve a threshold height level of the access to avoid potential flooding issues;
- Locate the access at a low side of the site frontage to avoid excessive ramping and excavation within the basement; and
- Provide adequate sight lines to approaching traffic including the interaction with the Albert Street / Lagoon Street intersection.

The proposed vehicle access at Alfred Street at the Lagoon Street addresses each of the above.

Notably, the removal of all vehicle access directly to / from Pittwater Road will provide benefits to the operation of the B-Line and the bus stop at the site's frontage through the removal of potential vehicle conflicts associated with vehicles slowing to turn into the site or turning out and entering the traffic stream at a slow speed.

4.3 Public Transport Implications

Albert Street (between Pittwater Road and Lagoon Street) and Lagoon Street are designated routes for Bus Services 155 and 182. As discussed in Section 3.2, the proposed development vehicle access will be provided at the intersection of Lagoon Street and Albert Street.

Traffic modelling results presented in Table 4.4 to Table 4.6 indicate that Albert Street-Lagoon Street intersection will still operate satisfactorily at LoS A even with the additional traffic that will be generated by the proposed development. The additional development traffic will increase the intersection delay by 1 second which is considered very minimal and will not cause any significant impact to buses travelling along this route.

Overall, the proposed vehicle access is not expected to cause any significant impact on the operation of the bus routes travelling along Albert Street and Lagoon Street.

Moreover, the availability of B-Line and local bus services will provide a realistic, attractive and viable transport option for future residents, employees and visitors of the site.

4.4 Pedestrian and Cycling Implications

It is noted that there is no existing pedestrian footpath provided along Albert Street in front of the subject site which is generally caused by the steep slope between the kerb and site boundary.

It is anticipated that development of the indicative master plan for the site will facilitate the provision of a paved pedestrian footpath along the site's frontage to Albert Street.

A footpath on both sides of Albert Street will provide better access to, from and past the development and surrounding sites.

The proposed development will not cause any impacts on the existing shared path on the western side of Pittwater Road and the existing on-road cycling route along Ocean Street.

4.5 Parking Assessment

4.5.1 Car Parking Requirement

The car parking requirements for the various land uses to be provided on the planning proposal site will be required to comply with the parking requirements set out in the Warringah Council Development Control Plan 2011 (DCP).

A summary of the car parking requirements as applied to the indicative master plan yields are set out in Table 4.7.

Table 4.7 indicates a total parking requirement of some 141 car spaces including 87 residential spaces and 54 non-residential spaces, based on DCP rates for each land use.

4.5.2 Accessible Car Parking

It is envisaged that residential apartment development of the site The DCP refers to the Building Code of Australia (BCA) for accessible car parking requirements. The requirements as stipulated in Table D.35 within the BCA are shown in Table 4.8.

Table 4.7: DCP Car Parking Requirements

Land Use	Size	DCP Car Parking Rate	Car Parking Requirement
Residential			
Studio			0
1-bedroom	14 units	1 space per unit	14
2-bedroom	31 units	1.2 space per unit	38
3-bedroom	15 units	1.5 space per unit	23
Visitors	-	0.2 space per unit	12
Sub-total	**60 units**	**-**	**87**
Café	20 sqm	1 space per 16.4m²	2
Office	240 sqm	1 space per 40m²	6
Medical	1,130 sqm	4 spaces per 100m²	46
Sub-total	**-**	**-**	**54**
Total	**-**		**141**

Note: The number of required parking spaces has been rounded up to the nearest whole number

Table 4.8: Adaptable Parking Requirements

Land Use	DCP Car Parking Rate
Residential	
- Tenants	1 space per adaptable unit
- Visitors	Typically, 1 space per 20 car spaces
Café	1 space per 50 spaces
Office	1 space per 100 spaces
Medical	1 space per 50 spaces

It is recommended that provisions for adaptable and accessible car parking within the site's basement car parking arrangements be considered during the DA process.

4.5.3 Bicycle Parking

On site provisions for bicycle parking will also need to be considered during the development of the development application for the site. As described in Section 2, the site is well connected to existing bicycle routes and the provision of adequate bicycle parking on site is considered a necessary measure to ensure that the benefits of accessibility to bicycle infrastructure and usage is achieved.

Council's DCP requires bicycle parking to be provided as per the rates detail in Table 4.9.

Table 4.9: DCP Bicycle Parking Requirements

Land Use	Minimum Bicycle Parking Rate	
	Resident/Staff	Visitors
Residents	1 space per unit	1 space per 12 units
Café	1 space per 200m²	1 space per 600m²
Office	1 space per 200m²	1 per 750m² over 1000m²
Medical Centre	NA	NA

4.5.4 Motorcycle Parking Requirement

The DCP does not stipulate a requirement for motorcycle parking spaces. However, motorcycle parking spaces are typically provided at the rate of one space per 50 car parking spaces provided.

It is recommended that the provision of motorcycle parking be considered during the DA design process.

5 Conclusion

The key findings of this Transport Impact Assessment are summarised in the following:

- The planning proposal seeks approval to amend the LEP planning controls for the site to increase the allowable height of building and various land uses
- The proposed amendments have been represented in an indicative master plan for the site which would accommodate some 60 residential apartments and 1150m^2 of commercial land uses. It is envisaged that the site would continue to accommodate a medical centre facility.
- Vehicle access to basement car parking on the subject site would be provided via an entry and exit access off Albert Street at Albert Street-Lagoon Street intersection.
- Basement car parking would be provided in accordance with DCP requirement and designed in accordance with AS2890.1:2004.
- The proposed development is expected to generate 88, 94 and 87 two-way vehicle trips per hour during the AM, PM and Saturday peak periods.
- The future development traffic is not expected to cause any adverse impact on the performance of surrounding roads.

Overall, the traffic and parking aspects of the proposed development are satisfactory.

Appendix A

TTPP Traffic Surveys – Peak Hour Periods

TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Waterloo St and Pittwater Rd, Narabeen

GPS *-33.712735, 151.297343*

Date:	Tue 06/11/18
Weather:	Overcast
Suburban:	Narabeen
Customer:	TTPP

North:	Pittwater Rd
East:	Waterloo St
South:	Pittwater Rd
West:	N/A

Survey Period	AM:	6:30 AM-9:30 AM
	PM:	3:30 PM-6:30 PM
Traffic Peak	AM:	7:30 AM-8:30 AM
	PM:	4:45 PM-5:45 PM

All Vehicles

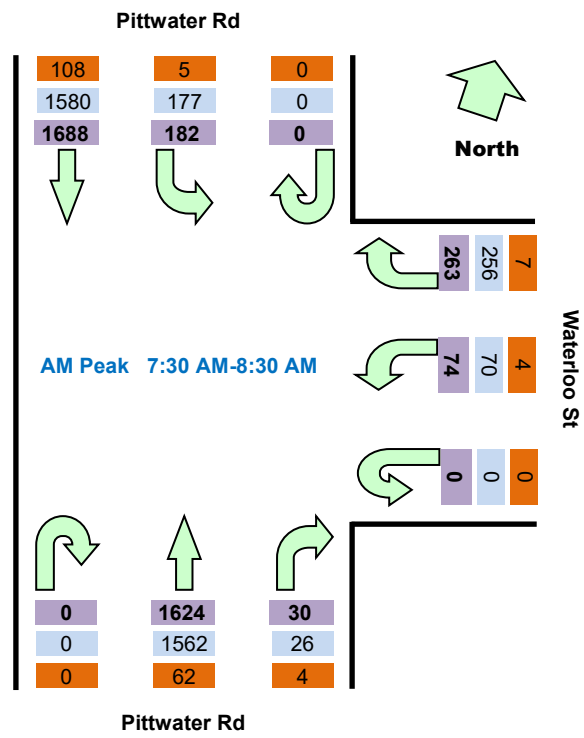
Time		North Approach Pittwater Rd			East Approach Waterloo St			South Approach Pittwater Rd			Hourly Total	
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	Hour	Peak
6:30	6:45	0	312	14	0	63	15	0	6	363	3212	
6:45	7:00	0	345	30	0	60	9	0	5	385	3387	
7:00	7:15	0	335	33	0	55	15	0	11	310	3521	
7:15	7:30	0	356	48	0	63	20	0	11	348	3765	
7:30	7:45	0	445	33	0	50	15	0	4	401	3861	Peak
7:45	8:00	0	418	54	0	67	17	0	6	406	3791	
8:00	8:15	0	451	43	0	79	23	0	14	393	3771	
8:15	8:30	0	374	52	0	67	19	0	6	424	3691	
8:30	8:45	0	351	48	0	65	17	0	6	391	3588	
8:45	9:00	0	403	73	0	65	17	0	14	376		
9:00	9:15	0	392	61	0	70	15	0	19	366		
9:15	9:30	0	340	47	0	58	19	0	14	361		
15:30	15:45	0	375	51	0	53	22	0	8	353	3714	
15:45	16:00	0	399	65	0	62	18	1	12	390	3741	
16:00	16:15	0	398	70	0	67	12	1	19	362	3788	
16:15	16:30	0	437	66	0	57	27	0	19	370	3765	
16:30	16:45	0	373	70	0	62	22	0	20	342	3833	
16:45	17:00	0	395	74	0	62	17	0	18	428	3935	Peak
17:00	17:15	0	379	59	0	55	15	0	16	382	3874	
17:15	17:30	0	469	56	0	71	23	0	16	409	3815	
17:30	17:45	0	455	80	0	58	15	0	21	362	3647	
17:45	18:00	0	428	75	0	60	24	1	9	336		
18:00	18:15	0	349	76	0	58	17	0	11	336		
18:15	18:30	0	350	73	0	44	15	0	13	381		

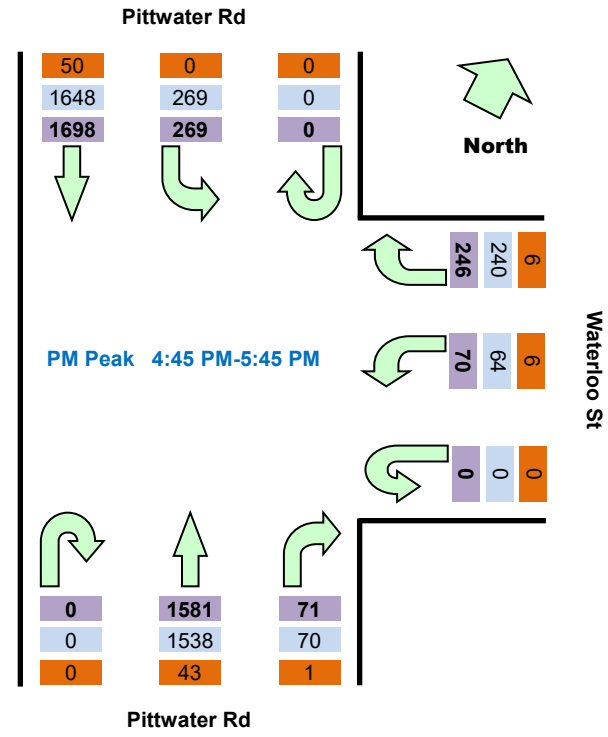
Peak Time		North Approach Pittwater Rd			East Approach Waterloo St			South Approach Pittwater Rd			Peak total
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
7:30	8:30	0	1688	182	0	263	74	0	30	1624	3861
16:45	17:45	0	1698	269	0	246	70	0	71	1581	3935

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy





TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Albert St and Pittwater Rd, Narabeen

GPS *-33.714189, 151.297325*

Date:	Tue 06/11/18
Weather:	Overcast
Suburban:	Narabeen
Customer:	TTPP

North:	Pittwater Rd
East:	Albert St
South:	Pittwater Rd
West:	N/A

Survey Period	AM:	6:30 AM-9:30 AM
	PM:	3:30 PM-6:30 PM
Traffic Peak	AM:	7:30 AM-8:30 AM
	PM:	4:45 PM-5:45 PM

All Vehicles

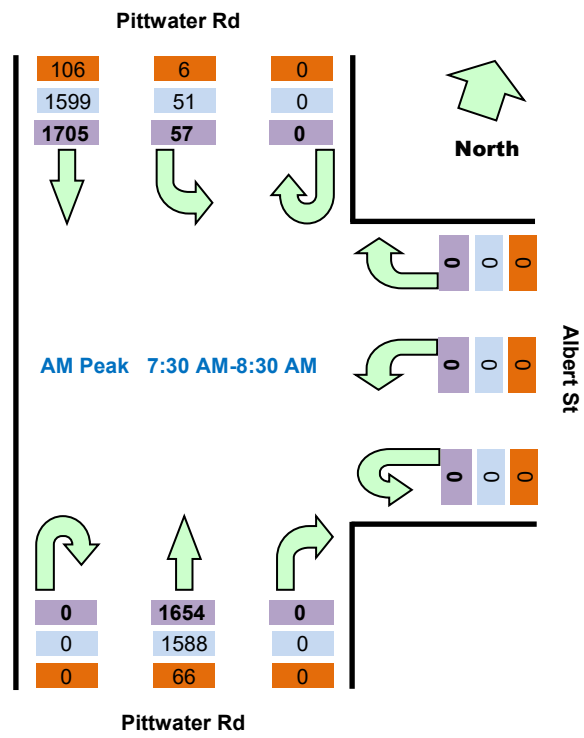
Time		North Approach Pittwater Rd			East Approach Albert St			South Approach Pittwater Rd			Hourly Total	
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	Hour	Peak
6:30	6:45	0	321	6	0	0	0	0	0	369	2846	
6:45	7:00	0	345	9	0	0	0	0	0	390	3015	
7:00	7:15	0	338	12	0	0	0	0	0	321	3118	
7:15	7:30	0	368	8	0	0	0	0	0	359	3328	
7:30	7:45	0	435	25	0	0	0	0	0	405	3416	Peak
7:45	8:00	0	422	13	0	0	0	0	0	412	3316	
8:00	8:15	0	463	11	0	0	0	0	0	407	3279	
8:15	8:30	0	385	8	0	0	0	0	0	430	3190	
8:30	8:45	0	355	13	0	0	0	0	0	397	3101	
8:45	9:00	0	414	6	0	0	0	0	0	390		
9:00	9:15	0	402	5	0	0	0	0	0	385		
9:15	9:30	0	353	6	0	0	0	0	0	375		
15:30	15:45	0	393	4	0	0	0	0	0	361	3225	
15:45	16:00	0	409	9	0	0	0	0	0	403	3224	
16:00	16:15	0	404	7	0	0	0	0	0	382	3262	
16:15	16:30	0	452	12	0	0	0	0	0	389	3261	
16:30	16:45	0	388	7	0	0	0	0	0	362	3325	
16:45	17:00	0	407	5	0	0	1	0	0	446	3421	Peak
17:00	17:15	0	388	6	0	0	0	0	0	398	3361	
17:15	17:30	0	486	6	0	0	0	0	0	425	3282	
17:30	17:45	0	463	7	0	0	0	0	0	383	3124	
17:45	18:00	0	447	6	0	0	0	0	0	346		
18:00	18:15	0	363	3	0	0	0	0	0	347		
18:15	18:30	0	359	6	0	0	0	0	0	394		

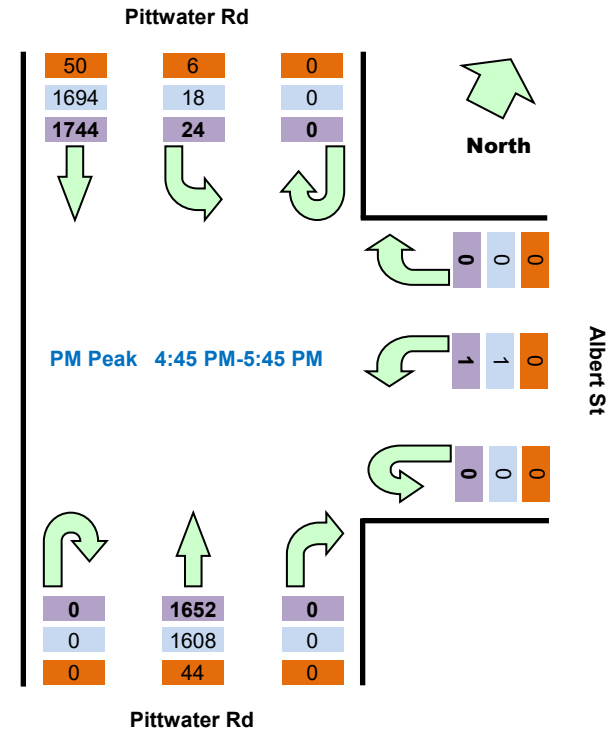
Peak Time		North Approach Pittwater Rd			East Approach Albert St			South Approach Pittwater Rd			Peak total
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
7:30	8:30	0	1705	57	0	0	0	0	0	1654	3416
16:45	17:45	0	1744	24	0	0	1	0	0	1652	3421

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy





TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Albert St and Ocean St, Narabeen

GPS *-33.714445, 151.299483*

Date:	Tue 06/11/18
Weather:	Overcast
Suburban:	Narabeen
Customer:	TTPP

North:	Ocean St
East:	Albert St
South:	Ocean St
West:	Albert St

Survey Period	AM:	6:30 AM-9:30 AM
	PM:	3:30 PM-6:30 PM
Traffic Peak	AM:	8:15 AM-9:15 AM
	PM:	4:30 PM-5:30 PM

All Vehicles

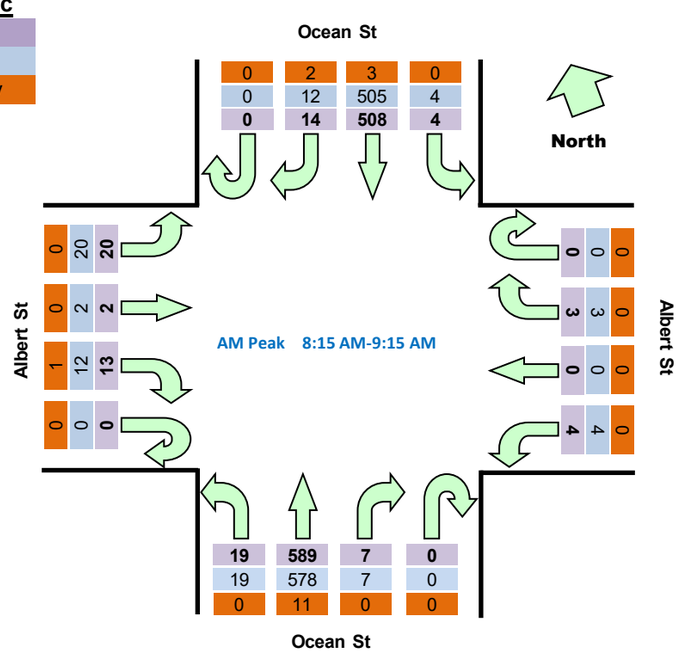
Time		North Approach Ocean St				East Approach Albert St				South Approach Ocean St				West Approach Albert St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
6:30	6:45	0	0	64	0	0	1	0	0	0	0	57	1	0	1	0	3	581	
6:45	7:00	0	1	64	0	0	1	0	0	0	0	80	2	0	1	0	2	653	
7:00	7:15	1	0	58	1	0	0	0	0	1	0	80	4	0	1	0	1	721	
7:15	7:30	1	1	67	1	0	0	0	1	0	1	78	2	0	3	0	1	855	
7:30	7:45	1	2	108	2	0	0	0	1	0	0	78	3	0	2	0	2	983	
7:45	8:00	0	2	105	3	0	1	0	0	0	2	98	0	0	6	1	1	1075	
8:00	8:15	0	2	129	1	0	0	0	1	0	1	130	8	0	4	2	3	1158	
8:15	8:30	0	2	142	1	0	0	0	2	0	2	122	5	0	1	0	7	1183	Peak
8:30	8:45	0	3	122	1	0	2	0	0	0	2	151	4	0	4	0	2	1133	
8:45	9:00	0	5	117	0	0	0	0	1	0	1	163	4	0	3	2	6		
9:00	9:15	0	4	127	2	0	1	0	1	0	2	153	6	0	5	0	5		
9:15	9:30	1	2	92	0	0	1	0	2	1	3	122	1	0	5	0	4		
15:30	15:45	1	0	75	0	0	1	1	1	0	1	120	4	0	1	0	4	829	
15:45	16:00	1	0	71	1	0	0	0	1	0	0	130	1	0	0	0	1	868	
16:00	16:15	0	4	77	0	0	1	0	1	0	1	104	2	1	3	0	3	921	
16:15	16:30	0	1	91	0	0	3	0	0	0	0	114	2	0	2	1	3	963	
16:30	16:45	0	1	117	0	0	0	0	3	0	3	113	1	0	4	0	6	974	Peak
16:45	17:00	0	0	117	0	0	1	0	0	0	1	137	2	0	1	0	0	904	
17:00	17:15	0	1	102	1	0	2	0	2	0	1	123	4	0	2	0	1	844	
17:15	17:30	1	1	108	0	0	3	1	2	0	0	104	2	0	3	0	3	791	
17:30	17:45	0	0	85	0	0	2	0	0	0	0	89	1	0	1	0	0	732	
17:45	18:00	0	0	83	1	0	1	0	1	0	1	108	3	0	0	0	1		
18:00	18:15	2	1	67	2	0	2	2	1	0	1	100	1	0	3	0	4		
18:15	18:30	0	0	69	0	0	1	0	0	0	1	88	4	0	2	0	4		

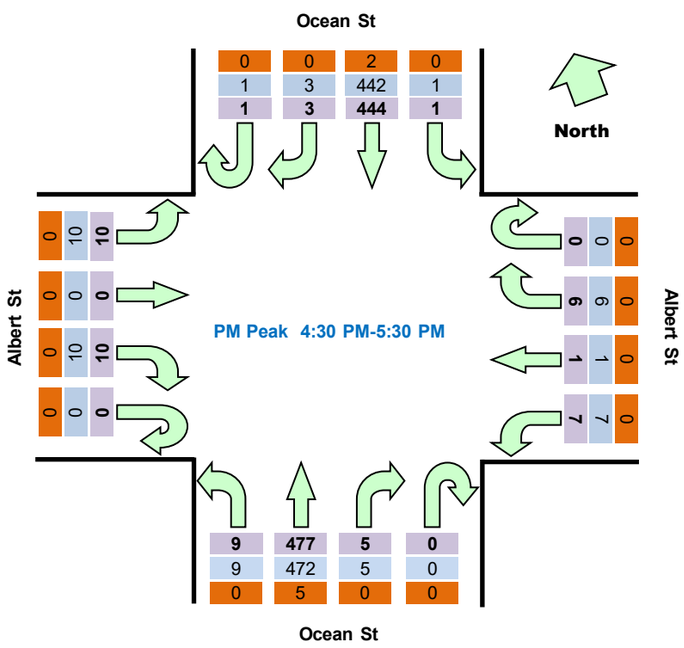
Peak Time		North Approach Ocean St				East Approach Albert St				South Approach Ocean St				West Approach Albert St				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
8:15	9:15	0	14	508	4	0	3	0	4	0	7	589	19	0	13	2	20	1183
16:30	17:30	1	3	444	1	0	6	1	7	0	5	477	9	0	10	0	10	974

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy





TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Ocean St and Pittwater Rd, Narabeen

GPS *-33.720504, 151.298239*

Date:	Tue 06/11/18
Weather:	Overcast
Suburban:	Narabeen
Customer:	TTPP

North:	Pittwater Rd
East:	Ocean St
South:	Pittwater Rd
West:	N/A

Survey Period	AM:	6:30 AM-9:30 AM
	PM:	3:30 PM-6:30 PM
Traffic Peak	AM:	7:45 AM-8:45 AM
	PM:	4:45 PM-5:45 PM

All Vehicles

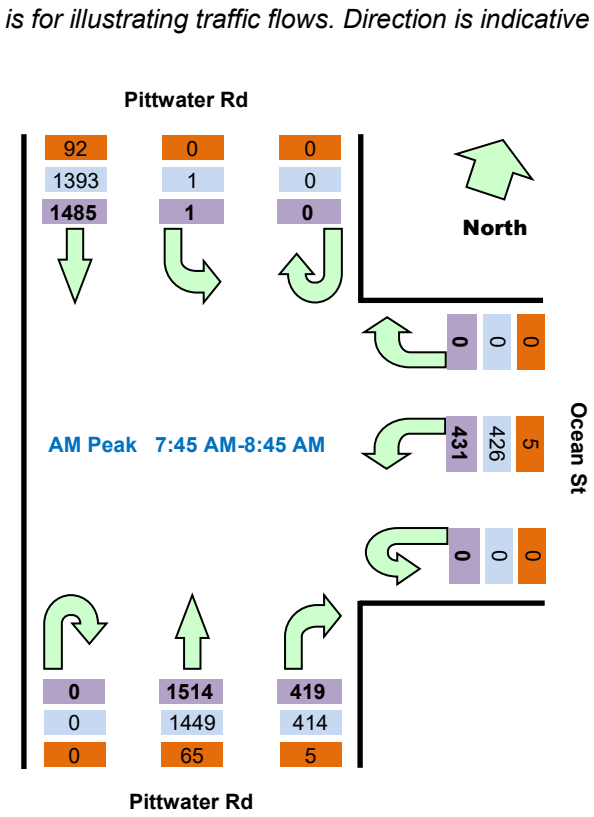
Time		North Approach Pittwater Rd			East Approach Ocean St			South Approach Pittwater Rd			Hourly Total	
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	Hour	Peak
6:30	6:45	0	255	0	0	0	53	0	60	335	3056	
6:45	7:00	0	341	0	0	0	66	0	69	347	3243	
7:00	7:15	0	295	1	0	0	52	0	75	315	3363	
7:15	7:30	0	348	0	0	0	71	0	63	310	3610	
7:30	7:45	0	379	0	0	0	95	0	85	331	3833	
7:45	8:00	0	394	0	0	0	90	0	91	368	3850	Peak
8:00	8:15	0	375	0	0	0	136	0	104	370	3826	
8:15	8:30	0	412	0	0	0	90	0	99	414	3738	
8:30	8:45	0	304	1	0	0	115	0	125	362	3519	
8:45	9:00	0	336	0	0	0	99	0	116	368		
9:00	9:15	0	343	1	0	0	96	0	116	341		
9:15	9:30	0	317	0	0	0	77	0	81	321		
15:30	15:45	0	306	0	0	0	63	0	80	344	3326	
15:45	16:00	0	233	0	0	0	79	0	99	340	3407	
16:00	16:15	0	351	0	0	0	61	0	91	361	3588	
16:15	16:30	0	361	1	0	0	86	0	104	366	3564	
16:30	16:45	0	341	0	0	0	106	0	95	332	3592	
16:45	17:00	0	346	2	0	0	95	0	88	401	3649	Peak
17:00	17:15	0	299	1	0	0	89	0	90	361	3570	
17:15	17:30	0	398	0	0	0	97	0	73	378	3481	
17:30	17:45	0	391	1	0	0	65	0	93	381	3314	
17:45	18:00	0	369	0	0	0	79	0	93	312		
18:00	18:15	0	286	0	0	0	62	2	98	303		
18:15	18:30	0	290	1	0	0	66	0	84	338		

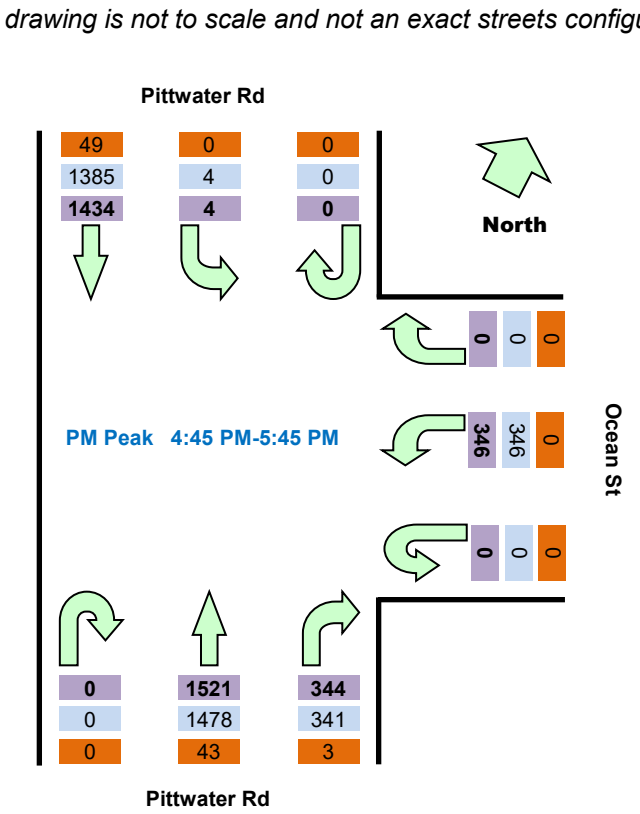
Peak Time		North Approach Pittwater Rd			East Approach Ocean St			South Approach Pittwater Rd			Peak total
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
7:45	8:45	0	1485	1	0	0	431	0	419	1514	3850
16:45	17:45	0	1434	4	0	0	346	0	344	1521	3649

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy





TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Waterloo St and Pittwater Rd, Narabeen

GPS *-33.712735, 151.297343*

Date:	Sat 03/11/18
Weather:	Overcast
Suburban:	Narabeen
Customer:	TTPP

North:	Pittwater Rd
East:	Waterloo St
South:	Pittwater Rd
West:	N/A

Survey Period	AM:	11:00 AM-12:00 PM
	PM:	12:00 PM-2:00 PM
Traffic Peak	AM:	11:15 AM-12:15 PM
	PM:	12:00 PM-1:00 PM

All Vehicles

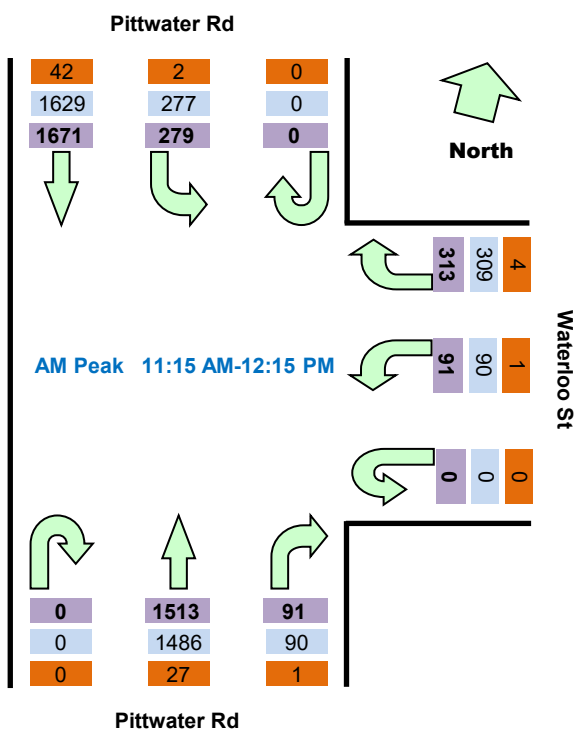
Time		North Approach Pittwater Rd			East Approach Waterloo St			South Approach Pittwater Rd			Hourly Total	
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	Hour	Peak
11:00	11:15	0	385	86	0	74	18	0	17	362	3898	
11:15	11:30	0	413	85	0	89	21	0	19	394	3958	Peak
11:30	11:45	0	393	64	0	80	23	0	24	388	3882	
11:45	12:00	0	411	67	0	68	23	0	26	368	3923	
12:00	12:15	0	454	63	0	76	24	0	22	363	3912	
12:15	12:30	0	370	104	0	73	23	0	22	353	3846	
12:30	12:45	0	441	82	0	78	20	0	16	376	3826	
12:45	13:00	0	377	84	0	84	28	0	31	348	3757	
13:00	13:15	0	354	80	0	86	17	0	27	372	3772	
13:15	13:30	0	362	81	0	67	28	0	20	367		
13:30	13:45	0	388	66	0	77	38	0	20	355		
13:45	14:00	0	453	59	0	58	21	0	14	362		

Peak Time		North Approach Pittwater Rd			East Approach Waterloo St			South Approach Pittwater Rd			Peak total
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
11:15	12:15	0	1671	279	0	313	91	0	91	1513	3958
12:00	13:00	0	1642	333	0	311	95	0	91	1440	3912

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Albert St and Pittwater Rd, Narabeen

GPS *-33.714189, 151.297325*

Date:	Sat 03/11/18
Weather:	Overcast
Suburban:	Narabeen
Customer:	TTPP

North:	Pittwater Rd
East:	Albert St
South:	Pittwater Rd
West:	N/A

Survey Period	AM:	11:00 AM-12:00 PM
	PM:	12:00 PM-2:00 PM
Traffic Peak	AM:	11:15 AM-12:15 PM
	PM:	12:00 PM-1:00 PM

All Vehicles

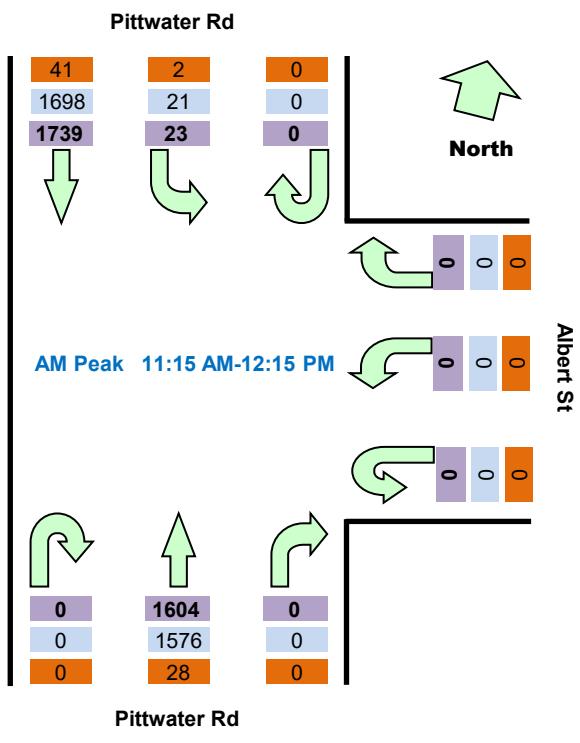
Time		North Approach Pittwater Rd			East Approach Albert St			South Approach Pittwater Rd			Hourly Total	
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	Hour	Peak
11:00	11:15	0	391	12	0	0	1	0	0	379	3286	
11:15	11:30	0	429	5	0	0	0	0	0	413	3366	Peak
11:30	11:45	0	414	2	0	0	0	0	0	412	3287	
11:45	12:00	0	427	7	0	0	0	0	0	394	3313	
12:00	12:15	0	469	9	0	0	0	0	0	385	3269	
12:15	12:30	0	386	7	0	0	0	0	0	375	3176	
12:30	12:45	0	454	7	0	0	0	0	1	392	3186	
12:45	13:00	0	396	9	0	0	0	0	0	379	3134	
13:00	13:15	0	367	4	0	0	0	0	0	399	3200	
13:15	13:30	0	381	9	0	0	1	0	0	387		
13:30	13:45	0	416	10	0	0	1	0	0	375		
13:45	14:00	0	458	16	0	0	0	0	0	376		

Peak Time		North Approach Pittwater Rd			East Approach Albert St			South Approach Pittwater Rd			Peak total
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
11:15	12:15	0	1739	23	0	0	0	0	0	1604	3366
12:00	13:00	0	1705	32	0	0	0	0	1	1531	3269

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Albert St and Ocean St, Narabeen

GPS *-33.714445, 151.299483*

Date:	Sat 03/11/18
Weather:	Overcast
Suburban:	Narabeen
Customer:	TTPP

North:	Ocean St
East:	Albert St
South:	Ocean St
West:	Albert St

Survey Period	AM:	11:00 AM-12:00 PM
	PM:	12:00 PM-2:00 PM
Traffic Peak	AM:	11:00 AM-12:00 PM
	PM:	12:00 PM-1:00 PM

All Vehicles

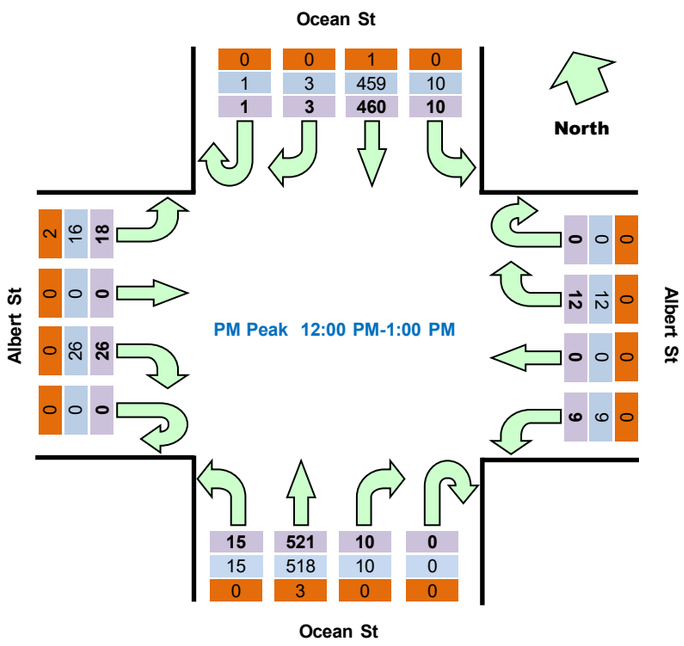
Time		North Approach Ocean St				East Approach Albert St				South Approach Ocean St				West Approach Albert St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
11:00	11:15	0	3	111	2	0	2	0	3	0	1	132	2	0	6	1	6	1067	
11:15	11:30	0	3	109	5	0	1	2	6	0	3	140	2	1	4	1	8	1059	
11:30	11:45	0	1	103	10	0	3	4	6	0	1	127	11	0	1	0	5	1045	
11:45	12:00	0	2	97	3	0	1	0	4	0	3	120	1	0	4	0	6	1028	
12:00	12:15	0	1	119	2	0	1	0	0	0	3	119	5	0	7	0	4	1085	Peak
12:15	12:30	0	1	109	3	0	3	0	4	0	3	135	3	0	6	0	4	1079	
12:30	12:45	0	1	104	2	0	4	0	3	0	0	122	4	0	9	0	6	1053	
12:45	13:00	1	0	128	3	0	4	0	2	0	4	145	3	0	4	0	4	1032	
13:00	13:15	1	2	109	3	0	3	0	1	0	2	123	2	0	7	0	2	967	
13:15	13:30	1	2	122	9	0	2	1	2	0	0	97	3	0	6	0	0		
13:30	13:45	0	2	111	3	0	2	0	2	0	1	99	3	0	6	0	5		
13:45	14:00	0	2	109	3	0	1	1	1	0	1	107	1	0	4	1	2		

Peak Time		North Approach Ocean St				East Approach Albert St				South Approach Ocean St				West Approach Albert St				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
11:00	12:00	0	9	420	20	0	7	6	19	0	8	519	16	1	15	2	25	1067
12:00	13:00	1	3	460	10	0	12	0	9	0	10	521	15	0	26	0	18	1085

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Ocean St and Pittwater Rd, Narabeen

GPS *-33.720504, 151.298239*

Date:	Sat 03/11/18
Weather:	Overcast
Suburban:	Narabeen
Customer:	TTPP

North:	Pittwater Rd
East:	Ocean St
South:	Pittwater Rd
West:	N/A

Survey Period	AM:	11:00 AM-12:00 PM
	PM:	12:00 PM-2:00 PM
Traffic Peak	AM:	11:15 AM-12:15 PM
	PM:	12:00 PM-1:00 PM

All Vehicles

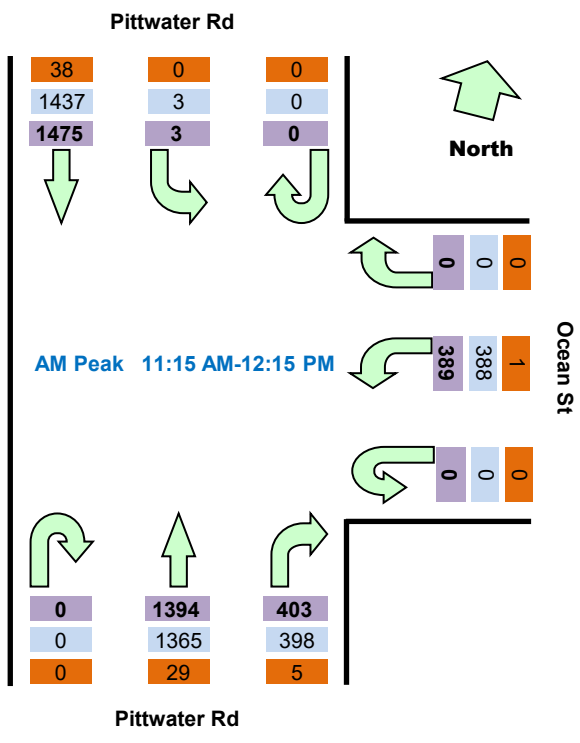
Time		North Approach Pittwater Rd			East Approach Ocean St			South Approach Pittwater Rd			Hourly Total	
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	Hour	Peak
11:00	11:15	0	369	1	0	0	90	0	104	329	3652	
11:15	11:30	0	377	2	0	0	93	0	102	366	3664	Peak
11:30	11:45	0	355	1	0	0	101	0	97	355	3597	
11:45	12:00	0	367	0	0	0	92	0	101	350	3622	
12:00	12:15	0	376	0	0	0	103	0	103	323	3604	
12:15	12:30	0	348	1	0	0	96	0	99	329	3586	
12:30	12:45	0	372	2	0	0	99	0	93	368	3568	
12:45	13:00	0	359	3	0	0	98	1	95	336	3523	
13:00	13:15	0	368	2	0	0	97	0	78	342	3512	
13:15	13:30	0	338	0	0	0	88	0	87	342		
13:30	13:45	0	366	3	0	0	100	0	75	345		
13:45	14:00	0	377	2	0	0	90	0	82	330		

Peak Time		North Approach Pittwater Rd			East Approach Ocean St			South Approach Pittwater Rd			Peak total
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
11:15	12:15	0	1475	3	0	0	389	0	403	1394	3664
12:00	13:00	0	1455	6	0	0	396	1	390	1356	3604

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Appendix B

SIDRA Modelling Results

MOVEMENT SUMMARY

Site: 1 [1 Pittwater Rd-Waterloo St-Ex AM]

Intersection: Pittwater Road-Waterloo Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing AM
Signals - Fixed Time Isolated Cycle Time = 117 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1709	3.8	0.583	8.1	LOS A	21.3	153.8	0.50	0.46	0.50	53.0
3	R2	32	13.3	0.298	28.9	LOS C	1.2	9.6	0.66	0.73	0.66	38.0
Approach		1741	4.0	0.583	8.5	LOS A	21.3	153.8	0.51	0.47	0.51	52.6
East: Waterloo Street												
4	L2	78	5.4	0.575	55.4	LOS D	8.6	62.1	0.98	0.81	0.98	29.4
6	R2	277	2.7	0.575	53.0	LOS D	10.4	74.6	0.97	0.81	0.97	30.0
Approach		355	3.3	0.575	53.5	LOS D	10.4	74.6	0.97	0.81	0.97	29.9
North: Pittwater Road												
7	L2	192	2.7	0.195	11.3	LOS A	4.2	34.7	0.35	0.57	0.35	46.9
8	T1	1777	6.4	0.666	9.0	LOS A	27.4	199.0	0.56	0.53	0.56	52.2
Approach		1968	6.0	0.666	9.1	LOS A	27.4	199.0	0.54	0.53	0.54	51.6
All Vehicles		4064	4.9	0.666	12.8	LOS A	27.4	199.0	0.56	0.53	0.56	48.9

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	51.8	LOS E	0.2	0.2	0.94	0.94
P2	East Full Crossing	53	52.8	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	52.3	LOS E			0.95	0.95

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: 1 [1 Pittwater Rd-Waterloo St-Ex PM]

Intersection: Pittwater Road-Waterloo Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing PM
Signals - Fixed Time Isolated Cycle Time = 126 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1664	2.7	0.587	7.9	LOS A	23.0	162.2	0.49	0.45	0.49	53.1
3	R2	75	1.4	0.378	47.8	LOS D	4.3	30.2	0.93	0.81	0.93	31.8
Approach		1739	2.7	0.587	9.6	LOS A	23.0	162.2	0.51	0.47	0.51	51.6
East: Waterloo Street												
4	L2	74	8.6	0.509	54.6	LOS D	9.5	69.6	0.95	0.81	0.95	29.5
6	R2	259	2.4	0.509	55.5	LOS D	9.5	69.6	0.95	0.80	0.95	29.4
Approach		333	3.8	0.509	55.3	LOS D	9.5	69.6	0.95	0.80	0.95	29.4
North: Pittwater Road												
7	L2	283	0.0	0.835	27.2	LOS B	20.6	146.2	0.56	0.69	0.66	39.6
8	T1	1787	2.9	0.835	20.4	LOS B	47.4	340.4	0.72	0.71	0.77	44.7
Approach		2071	2.5	0.835	21.3	LOS B	47.4	340.4	0.70	0.71	0.75	43.9
All Vehicles		4142	2.7	0.835	19.1	LOS B	47.4	340.4	0.64	0.62	0.67	45.0

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	56.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	57.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	56.8	LOS E			0.95	0.95

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: 1 [1 Pittwater Rd-Waterloo St-Ex Sat]

Intersection: Pittwater Road-Waterloo Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing Saturday
Signals - Fixed Time Isolated Cycle Time = 130 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1593	1.8	0.516	7.3	LOS A	18.9	134.3	0.44	0.41	0.44	53.6
3	R2	96	1.1	0.461	52.2	LOS D	6.0	42.5	0.99	0.85	1.02	30.6
Approach		1688	1.7	0.516	9.9	LOS A	18.9	134.3	0.47	0.43	0.48	51.4
East: Waterloo Street												
4	L2	96	1.1	0.660	58.4	LOS E	13.2	93.0	0.98	0.83	0.98	28.7
6	R2	329	1.3	0.660	59.4	LOS E	13.2	93.0	0.99	0.83	0.99	28.5
Approach		425	1.2	0.660	59.2	LOS E	13.2	93.0	0.99	0.83	0.99	28.6
North: Pittwater Road												
7	L2	294	0.7	0.833	27.3	LOS B	20.7	147.1	0.57	0.70	0.65	39.5
8	T1	1759	2.5	0.833	20.8	LOS B	48.6	347.5	0.73	0.71	0.76	44.5
Approach		2053	2.3	0.833	21.8	LOS B	48.6	347.5	0.70	0.71	0.75	43.7
All Vehicles		4166	1.9	0.833	20.8	LOS B	48.6	347.5	0.64	0.61	0.66	44.0

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	58.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	59.3	LOS E	0.2	0.2	0.96	0.96
All Pedestrians		105	58.8	LOS E			0.95	0.95

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: 1 [1 Pittwater Rd-Waterloo St-Ex+Dev AM]

Intersection: Pittwater Road-Waterloo Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing + Development AM
Signals - Fixed Time Isolated Cycle Time = 117 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1709	3.8	0.582	8.1	LOS A	21.3	153.6	0.50	0.46	0.50	53.0
3	R2	32	13.3	0.304	29.0	LOS C	1.2	9.6	0.66	0.73	0.66	37.9
Approach		1741	4.0	0.582	8.5	LOS A	21.3	153.6	0.51	0.47	0.51	52.6
East: Waterloo Street												
4	L2	78	5.4	0.618	55.0	LOS D	9.4	67.9	0.98	0.81	0.98	29.5
6	R2	306	2.4	0.618	53.2	LOS D	11.3	81.0	0.98	0.82	0.98	30.0
Approach		384	3.0	0.618	53.6	LOS D	11.3	81.0	0.98	0.82	0.98	29.9
North: Pittwater Road												
7	L2	192	2.7	0.195	11.3	LOS A	4.2	34.7	0.35	0.57	0.35	46.9
8	T1	1795	6.3	0.673	9.1	LOS A	28.1	203.5	0.57	0.53	0.57	52.1
Approach		1986	6.0	0.673	9.2	LOS A	28.1	203.5	0.55	0.53	0.55	51.6
All Vehicles		4112	4.9	0.673	13.1	LOS A	28.1	203.5	0.57	0.53	0.57	48.6

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	51.8	LOS E	0.2	0.2	0.94	0.94
P2	East Full Crossing	53	52.8	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	52.3	LOS E			0.95	0.95

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: 1 [1 Pittwater Rd-Waterloo St-Ex+Dev PM]

Intersection: Pittwater Road-Waterloo Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing + Development PM
Signals - Fixed Time Isolated Cycle Time = 126 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1664	2.7	0.587	7.9	LOS A	23.0	162.1	0.49	0.45	0.49	53.1
3	R2	75	1.4	0.382	49.4	LOS D	4.3	30.7	0.94	0.81	0.94	31.3
Approach		1739	2.7	0.587	9.7	LOS A	23.0	162.1	0.51	0.47	0.51	51.6
East: Waterloo Street												
4	L2	74	8.6	0.539	54.9	LOS D	10.1	73.8	0.95	0.81	0.95	29.5
6	R2	278	2.3	0.539	55.8	LOS D	10.1	73.8	0.96	0.81	0.96	29.3
Approach		352	3.6	0.539	55.7	LOS D	10.1	73.8	0.96	0.81	0.96	29.4
North: Pittwater Road												
7	L2	283	0.0	0.848	29.4	LOS C	21.8	154.7	0.57	0.71	0.68	38.7
8	T1	1818	2.9	0.848	21.7	LOS B	49.4	354.2	0.73	0.73	0.79	44.0
Approach		2101	2.5	0.848	22.8	LOS B	49.4	354.2	0.71	0.73	0.77	43.2
All Vehicles		4192	2.7	0.848	20.1	LOS B	49.4	354.2	0.65	0.63	0.68	44.4

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	56.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	57.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	56.8	LOS E			0.95	0.95

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: 1 [1 Pittwater Rd-Waterloo St-Ex+Dev Sat]

Intersection: Pittwater Road-Waterloo Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing + Development Saturday
Signals - Fixed Time Isolated Cycle Time = 130 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1593	1.8	0.516	7.3	LOS A	18.9	134.3	0.44	0.41	0.44	53.6
3	R2	96	1.1	0.466	53.9	LOS D	6.0	42.5	0.99	0.85	1.04	30.2
Approach		1688	1.7	0.516	10.0	LOS A	18.9	134.3	0.47	0.43	0.48	51.3
East: Waterloo Street												
4	L2	96	1.1	0.703	59.7	LOS E	14.2	100.5	0.99	0.85	1.02	28.4
6	R2	356	1.2	0.703	60.6	LOS E	14.2	100.5	1.00	0.85	1.03	28.3
Approach		452	1.2	0.703	60.4	LOS E	14.2	100.5	1.00	0.85	1.03	28.3
North: Pittwater Road												
7	L2	294	0.7	0.844	29.2	LOS C	21.8	154.4	0.57	0.71	0.67	38.7
8	T1	1785	2.5	0.844	21.8	LOS B	50.0	357.4	0.74	0.73	0.78	43.9
Approach		2079	2.2	0.844	22.9	LOS B	50.0	357.4	0.71	0.72	0.76	43.1
All Vehicles		4219	1.9	0.844	21.7	LOS B	50.0	357.4	0.65	0.62	0.68	43.4

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	58.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	59.3	LOS E	0.2	0.2	0.96	0.96
All Pedestrians		105	58.8	LOS E			0.95	0.95

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: 1 [1 Pittwater Rd-Waterloo St-FB AM]

Intersection: Pittwater Road-Waterloo Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base AM
Signals - Fixed Time Isolated Cycle Time = 117 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	2052	3.8	0.748	9.4	LOS A	34.3	248.1	0.59	0.54	0.59	52.0
3	R2	32	13.3	0.411	43.6	LOS D	1.6	12.4	0.83	0.77	0.83	32.9
Approach		2083	3.9	0.748	9.9	LOS A	34.3	248.1	0.59	0.55	0.59	51.5
East: Waterloo Street												
4	L2	78	5.4	0.575	55.4	LOS D	8.6	62.1	0.98	0.81	0.98	29.4
6	R2	277	2.7	0.575	53.0	LOS D	10.4	74.6	0.97	0.81	0.97	30.0
Approach		355	3.3	0.575	53.5	LOS D	10.4	74.6	0.97	0.81	0.97	29.9
North: Pittwater Road												
7	L2	192	2.7	0.195	11.3	LOS A	4.2	34.7	0.35	0.57	0.35	46.9
8	T1	2133	6.4	0.821	11.0	LOS A	43.0	313.0	0.69	0.65	0.69	50.7
Approach		2324	6.1	0.821	11.0	LOS A	43.0	313.0	0.66	0.64	0.66	50.4
All Vehicles		4762	5.0	0.821	13.7	LOS A	43.0	313.0	0.65	0.61	0.65	48.4

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	51.8	LOS E	0.2	0.2	0.94	0.94
P2	East Full Crossing	53	52.8	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	52.3	LOS E			0.95	0.95

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: 1 [1 Pittwater Rd-Waterloo St-FB PM]

Intersection: Pittwater Road-Waterloo Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base PM
Signals - Fixed Time Isolated Cycle Time = 126 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1997	2.7	0.707	9.3	LOS A	32.8	231.8	0.58	0.55	0.58	52.0
3	R2	75	1.4	0.422	64.1	LOS E	4.5	31.8	0.97	0.74	1.03	27.9
Approach		2072	2.7	0.707	11.3	LOS A	32.8	231.8	0.60	0.55	0.60	50.4
East: Waterloo Street												
4	L2	74	8.6	0.509	54.6	LOS D	9.5	69.6	0.95	0.81	0.95	29.5
6	R2	259	2.4	0.509	55.5	LOS D	9.5	69.6	0.95	0.80	0.95	29.4
Approach		333	3.8	0.509	55.3	LOS D	9.5	69.6	0.95	0.80	0.95	29.4
North: Pittwater Road												
7	L2	283	0.0	0.991	82.7	LOS F	43.4	308.0	0.60	0.96	1.11	24.8
8	T1	2145	2.9	0.991	72.0	LOS F	102.9	738.5	0.82	1.09	1.23	27.4
Approach		2428	2.6	0.991	73.3	LOS F	102.9	738.5	0.80	1.08	1.22	27.1
All Vehicles		4833	2.7	0.991	45.5	LOS D	102.9	738.5	0.72	0.83	0.93	34.0

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	56.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	57.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	56.8	LOS E			0.95	0.95

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: 1 [1 Pittwater Rd-Waterloo St-FB Sat]

Intersection: Pittwater Road-Waterloo Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base Saturday
Signals - Fixed Time Isolated Cycle Time = 130 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1912	1.8	0.636	8.3	LOS A	27.2	193.4	0.50	0.46	0.50	52.8
3	R2	96	1.1	0.514	67.4	LOS E	6.0	42.1	0.99	0.84	1.24	27.2
Approach		2007	1.7	0.636	11.1	LOS A	27.2	193.4	0.53	0.48	0.54	50.5
East: Waterloo Street												
4	L2	96	1.1	0.660	58.4	LOS E	13.2	93.0	0.98	0.83	0.98	28.7
6	R2	329	1.3	0.660	59.4	LOS E	13.2	93.0	0.99	0.83	0.99	28.5
Approach		425	1.2	0.660	59.2	LOS E	13.2	93.0	0.99	0.83	0.99	28.6
North: Pittwater Road												
7	L2	294	0.7	0.986	80.5	LOS F	42.9	304.3	0.60	0.95	1.08	25.1
8	T1	2111	2.5	0.986	69.5	LOS E	101.7	727.5	0.82	1.07	1.20	27.9
Approach		2404	2.3	0.986	70.9	LOS F	101.7	727.5	0.80	1.05	1.18	27.5
All Vehicles		4837	2.0	0.986	45.0	LOS D	101.7	727.5	0.70	0.80	0.90	34.1

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	58.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	59.3	LOS E	0.2	0.2	0.96	0.96
All Pedestrians		105	58.8	LOS E			0.95	0.95

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: 1 [1 Pittwater Rd-Waterloo St-FB+Dev AM]

Intersection: Pittwater Road-Waterloo Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base + Development AM
Signals - Fixed Time Isolated Cycle Time = 117 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	2052	3.8	0.747	9.4	LOS A	34.2	247.5	0.59	0.54	0.59	52.0
3	R2	32	13.3	0.416	44.5	LOS D	1.6	12.5	0.83	0.77	0.83	32.7
Approach		2083	3.9	0.747	9.9	LOS A	34.2	247.5	0.59	0.55	0.59	51.5
East: Waterloo Street												
4	L2	78	5.4	0.618	55.0	LOS D	9.4	67.9	0.98	0.81	0.98	29.5
6	R2	306	2.4	0.618	53.2	LOS D	11.3	81.0	0.98	0.82	0.98	30.0
Approach		384	3.0	0.618	53.6	LOS D	11.3	81.0	0.98	0.82	0.98	29.9
North: Pittwater Road												
7	L2	192	2.7	0.195	11.3	LOS A	4.2	34.7	0.35	0.57	0.35	46.9
8	T1	2151	6.4	0.829	11.2	LOS A	44.0	319.8	0.70	0.66	0.70	50.6
Approach		2342	6.1	0.829	11.1	LOS A	44.0	319.8	0.67	0.65	0.67	50.3
All Vehicles		4809	4.9	0.829	14.0	LOS A	44.0	319.8	0.66	0.62	0.66	48.2

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	51.8	LOS E	0.2	0.2	0.94	0.94
P2	East Full Crossing	53	52.8	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	52.3	LOS E			0.95	0.95

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: 1 [1 Pittwater Rd-Waterloo St-FB+Dev PM]

Intersection: Pittwater Road-Waterloo Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base + Development PM
Signals - Fixed Time Isolated Cycle Time = 126 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1997	2.7	0.712	9.3	LOS A	33.3	235.1	0.58	0.55	0.58	52.0
3	R2	75	1.4	0.421	63.8	LOS E	4.5	32.0	0.98	0.75	1.03	27.9
Approach		2072	2.7	0.712	11.3	LOS A	33.3	235.1	0.60	0.55	0.60	50.4
East: Waterloo Street												
4	L2	74	8.6	0.539	54.9	LOS D	10.1	73.8	0.95	0.81	0.95	29.5
6	R2	278	2.3	0.539	55.8	LOS D	10.1	73.8	0.96	0.81	0.96	29.3
Approach		352	3.6	0.539	55.7	LOS D	10.1	73.8	0.96	0.81	0.96	29.4
North: Pittwater Road												
7	L2	283	0.0	1.004	101.4	LOS F	62.7	444.9	1.00	1.25	1.56	22.0
8	T1	2176	2.9	1.004	84.9	LOS F	109.6	786.5	1.00	1.28	1.46	24.9
Approach		2459	2.6	1.004	86.8	LOS F	109.6	786.5	1.00	1.27	1.48	24.6
All Vehicles		4882	2.7	1.004	52.5	LOS D	109.6	786.5	0.83	0.93	1.07	31.9

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	56.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	57.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	56.8	LOS E			0.95	0.95

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: 1 [1 Pittwater Rd-Waterloo St-FB+Dev Sat]

Intersection: Pittwater Road-Waterloo Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base + Development Saturday
Signals - Fixed Time Isolated Cycle Time = 130 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1912	1.8	0.636	8.3	LOS A	27.2	193.4	0.50	0.46	0.50	52.8
3	R2	96	1.1	0.514	67.4	LOS E	6.0	42.1	0.99	0.84	1.24	27.2
Approach		2007	1.7	0.636	11.1	LOS A	27.2	193.4	0.53	0.48	0.54	50.5
East: Waterloo Street												
4	L2	96	1.1	0.703	59.7	LOS E	14.2	100.5	0.99	0.85	1.02	28.4
6	R2	356	1.2	0.703	60.6	LOS E	14.2	100.5	1.00	0.85	1.03	28.3
Approach		452	1.2	0.703	60.4	LOS E	14.2	100.5	1.00	0.85	1.03	28.3
North: Pittwater Road												
7	L2	294	0.7	0.998	87.3	LOS F	45.2	320.8	0.61	0.98	1.13	24.0
8	T1	2137	2.5	0.998	76.6	LOS F	108.1	772.5	0.83	1.10	1.25	26.5
Approach		2431	2.3	0.998	77.9	LOS F	108.1	772.5	0.80	1.09	1.23	26.1
All Vehicles		4889	1.9	0.998	48.9	LOS D	108.1	772.5	0.71	0.82	0.93	32.9

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	58.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	59.3	LOS E	0.2	0.2	0.96	0.96
All Pedestrians		105	58.8	LOS E			0.95	0.95

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 Albert St-Lagoon St-Ex AM]

Intersection: Albert Street-Lagoon Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing AM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Albert Street												
6	R2	25	0.0	0.015	4.7	LOS A	0.1	0.5	0.15	0.52	0.15	37.2
Approach		25	0.0	0.015	4.7	NA	0.1	0.5	0.15	0.52	0.15	37.2
North: Lagoon Street												
7	L2	1	0.0	0.001	4.6	LOS A	0.0	0.0	0.09	0.49	0.09	38.8
Approach		1	0.0	0.001	4.6	LOS A	0.0	0.0	0.09	0.49	0.09	38.8
West: Albert Street												
10	L2	31	17.2	0.034	3.2	LOS A	0.0	0.0	0.00	0.26	0.00	39.1
11	T1	29	3.6	0.034	0.0	LOS A	0.0	0.0	0.00	0.26	0.00	44.7
Approach		60	10.5	0.034	1.6	NA	0.0	0.0	0.00	0.26	0.00	41.7
All Vehicles		86	7.3	0.034	2.6	NA	0.1	0.5	0.05	0.34	0.05	39.8

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 2 [2 Albert St-Lagoon St-Ex PM]

Intersection: Albert Street-Lagoon Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing PM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Albert Street												
6	R2	13	8.3	0.008	4.8	LOS A	0.0	0.3	0.12	0.52	0.12	36.5
Approach		13	8.3	0.008	4.8	NA	0.0	0.3	0.12	0.52	0.12	36.5
North: Lagoon Street												
7	L2	5	0.0	0.003	4.6	LOS A	0.0	0.1	0.07	0.50	0.07	38.9
Approach		5	0.0	0.003	4.6	LOS A	0.0	0.1	0.07	0.50	0.07	38.9
West: Albert Street												
10	L2	17	43.8	0.022	3.2	LOS A	0.0	0.0	0.00	0.23	0.00	35.9
11	T1	20	0.0	0.022	0.0	LOS A	0.0	0.0	0.00	0.23	0.00	46.3
Approach		37	20.0	0.022	1.5	NA	0.0	0.0	0.00	0.23	0.00	41.0
All Vehicles		55	15.4	0.022	2.5	NA	0.0	0.3	0.03	0.32	0.03	39.3

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 2 [2 Albert St-Lagoon St-Ex Sat]

Intersection: Albert Street-Lagoon Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing Saturday
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Albert Street												
6	R2	33	0.0	0.019	4.6	LOS A	0.1	0.6	0.10	0.53	0.10	37.5
Approach		33	0.0	0.019	4.6	NA	0.1	0.6	0.10	0.53	0.10	37.5
North: Lagoon Street												
7	L2	21	0.0	0.013	4.6	LOS A	0.1	0.4	0.08	0.50	0.08	38.8
Approach		21	0.0	0.013	4.6	LOS A	0.1	0.4	0.08	0.50	0.08	38.8
West: Albert Street												
10	L2	3	100.0	0.015	3.2	LOS A	0.0	0.0	0.00	0.10	0.00	36.3
11	T1	24	0.0	0.015	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	48.6
Approach		27	11.5	0.015	0.7	NA	0.0	0.0	0.00	0.10	0.00	46.8
All Vehicles		81	3.9	0.019	3.2	NA	0.1	0.6	0.06	0.38	0.06	39.9

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 2 [2 Albert St-Lagoon St-Ex+Dev AM]

Intersection: Albert Street-Lagoon Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing + Development AM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Site Access												
2	T1	29	0.0	0.053	4.6	LOS A	0.2	1.3	0.19	0.54	0.19	50.7
3	R2	29	0.0	0.053	5.8	LOS A	0.2	1.3	0.19	0.54	0.19	49.8
Approach		59	0.0	0.053	5.2	LOS A	0.2	1.3	0.19	0.54	0.19	50.3
East: Albert Street												
4	L2	18	0.0	0.024	5.7	LOS A	0.1	0.7	0.14	0.51	0.14	49.5
6	R2	25	0.0	0.024	4.7	LOS A	0.1	0.7	0.14	0.51	0.14	37.8
Approach		43	0.0	0.024	5.1	NA	0.1	0.7	0.14	0.51	0.14	44.4
North: Lagoon Street												
7	L2	1	0.0	0.002	4.6	LOS A	0.0	0.0	0.10	0.50	0.10	40.3
8	T1	1	0.0	0.002	4.5	LOS A	0.0	0.0	0.10	0.50	0.10	50.6
Approach		2	0.0	0.002	4.6	LOS A	0.0	0.0	0.10	0.50	0.10	47.1
West: Albert Street												
10	L2	31	17.2	0.044	3.2	LOS A	0.1	0.9	0.04	0.33	0.04	38.1
11	T1	29	3.6	0.044	0.0	LOS A	0.1	0.9	0.04	0.33	0.04	43.4
12	R2	18	0.0	0.044	3.4	LOS A	0.1	0.9	0.04	0.33	0.04	51.9
Approach		78	8.1	0.044	2.0	NA	0.1	0.9	0.04	0.33	0.04	45.3
All Vehicles		182	3.5	0.053	3.8	NA	0.2	1.3	0.11	0.44	0.11	47.4

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 2 [2 Albert St-Lagoon St-Ex+Dev PM]

Intersection: Albert Street-Lagoon Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing + Development PM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Site Access												
2	T1	19	0.0	0.034	4.5	LOS A	0.1	0.8	0.18	0.54	0.18	50.8
3	R2	19	0.0	0.034	5.8	LOS A	0.1	0.8	0.18	0.54	0.18	49.9
Approach		38	0.0	0.034	5.2	LOS A	0.1	0.8	0.18	0.54	0.18	50.3
East: Albert Street												
4	L2	31	0.0	0.024	5.6	LOS A	0.1	0.5	0.07	0.53	0.07	50.0
6	R2	13	8.3	0.024	4.8	LOS A	0.1	0.5	0.07	0.53	0.07	37.7
Approach		43	2.4	0.024	5.3	NA	0.1	0.5	0.07	0.53	0.07	47.7
North: Lagoon Street												
7	L2	5	0.0	0.004	4.6	LOS A	0.0	0.1	0.06	0.51	0.06	39.4
8	T1	1	0.0	0.004	4.5	LOS A	0.0	0.1	0.06	0.51	0.06	50.0
Approach		6	0.0	0.004	4.6	LOS A	0.0	0.1	0.06	0.51	0.06	42.3
West: Albert Street												
10	L2	17	43.8	0.039	3.3	LOS A	0.2	1.2	0.09	0.38	0.09	33.7
11	T1	20	0.0	0.039	0.1	LOS A	0.2	1.2	0.09	0.38	0.09	42.8
12	R2	31	0.0	0.039	3.4	LOS A	0.2	1.2	0.09	0.38	0.09	51.6
Approach		67	10.9	0.039	2.4	NA	0.2	1.2	0.09	0.38	0.09	47.0
All Vehicles		155	5.4	0.039	4.0	NA	0.2	1.2	0.10	0.47	0.10	48.1

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 2 [2 Albert St-Lagoon St-Ex+Dev Sat]

Intersection: Albert Street-Lagoon Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing + Development Saturday
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Site Access												
2	T1	26	0.0	0.048	4.5	LOS A	0.2	1.2	0.20	0.55	0.20	50.7
3	R2	26	0.0	0.048	6.0	LOS A	0.2	1.2	0.20	0.55	0.20	49.8
Approach		53	0.0	0.048	5.2	LOS A	0.2	1.2	0.20	0.55	0.20	50.2
East: Albert Street												
4	L2	26	0.0	0.033	5.6	LOS A	0.1	1.0	0.09	0.53	0.09	49.7
6	R2	33	0.0	0.033	4.6	LOS A	0.1	1.0	0.09	0.53	0.09	38.1
Approach		59	0.0	0.033	5.1	NA	0.1	1.0	0.09	0.53	0.09	45.1
North: Lagoon Street												
7	L2	21	0.0	0.014	4.6	LOS A	0.1	0.4	0.08	0.50	0.08	39.0
8	T1	1	0.0	0.014	4.5	LOS A	0.1	0.4	0.08	0.50	0.08	49.7
Approach		22	0.0	0.014	4.6	LOS A	0.1	0.4	0.08	0.50	0.08	39.9
West: Albert Street												
10	L2	3	100.0	0.030	3.3	LOS A	0.1	0.9	0.08	0.32	0.08	33.6
11	T1	24	0.0	0.030	0.1	LOS A	0.1	0.9	0.08	0.32	0.08	43.9
12	R2	26	0.0	0.030	3.4	LOS A	0.1	0.9	0.08	0.32	0.08	52.2
Approach		54	5.9	0.030	2.0	NA	0.1	0.9	0.08	0.32	0.08	49.4
All Vehicles		187	1.7	0.048	4.2	NA	0.2	1.2	0.12	0.47	0.12	47.5

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 2 [2 Albert St-Lagoon St-FB AM]

Intersection: Albert Street-Lagoon Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base AM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Albert Street												
6	R2	25	0.0	0.015	4.7	LOS A	0.1	0.5	0.15	0.52	0.15	37.2
Approach		25	0.0	0.015	4.7	NA	0.1	0.5	0.15	0.52	0.15	37.2
North: Lagoon Street												
7	L2	1	0.0	0.001	4.6	LOS A	0.0	0.0	0.09	0.49	0.09	38.8
Approach		1	0.0	0.001	4.6	LOS A	0.0	0.0	0.09	0.49	0.09	38.8
West: Albert Street												
10	L2	31	17.2	0.034	3.2	LOS A	0.0	0.0	0.00	0.26	0.00	39.1
11	T1	29	3.6	0.034	0.0	LOS A	0.0	0.0	0.00	0.26	0.00	44.7
Approach		60	10.5	0.034	1.6	NA	0.0	0.0	0.00	0.26	0.00	41.7
All Vehicles		86	7.3	0.034	2.6	NA	0.1	0.5	0.05	0.34	0.05	39.8

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 2 [2 Albert St-Lagoon St-FB PM]

Intersection: Albert Street-Lagoon Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base PM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Albert Street												
6	R2	13	8.3	0.008	4.8	LOS A	0.0	0.3	0.12	0.52	0.12	36.5
Approach		13	8.3	0.008	4.8	NA	0.0	0.3	0.12	0.52	0.12	36.5
North: Lagoon Street												
7	L2	5	0.0	0.003	4.6	LOS A	0.0	0.1	0.07	0.50	0.07	38.9
Approach		5	0.0	0.003	4.6	LOS A	0.0	0.1	0.07	0.50	0.07	38.9
West: Albert Street												
10	L2	17	43.8	0.022	3.2	LOS A	0.0	0.0	0.00	0.23	0.00	35.9
11	T1	20	0.0	0.022	0.0	LOS A	0.0	0.0	0.00	0.23	0.00	46.3
Approach		37	20.0	0.022	1.5	NA	0.0	0.0	0.00	0.23	0.00	41.0
All Vehicles		55	15.4	0.022	2.5	NA	0.0	0.3	0.03	0.32	0.03	39.3

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 2 [2 Albert St-Lagoon St-FB Sat]

Intersection: Albert Street-Lagoon Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base Saturday
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Albert Street												
6	R2	33	0.0	0.019	4.6	LOS A	0.1	0.6	0.10	0.53	0.10	37.5
Approach		33	0.0	0.019	4.6	NA	0.1	0.6	0.10	0.53	0.10	37.5
North: Lagoon Street												
7	L2	21	0.0	0.013	4.6	LOS A	0.1	0.4	0.08	0.50	0.08	38.8
Approach		21	0.0	0.013	4.6	LOS A	0.1	0.4	0.08	0.50	0.08	38.8
West: Albert Street												
10	L2	3	100.0	0.015	3.2	LOS A	0.0	0.0	0.00	0.10	0.00	36.3
11	T1	24	0.0	0.015	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	48.6
Approach		27	11.5	0.015	0.7	NA	0.0	0.0	0.00	0.10	0.00	46.8
All Vehicles		81	3.9	0.019	3.2	NA	0.1	0.6	0.06	0.38	0.06	39.9

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 2 [2 Albert St-Lagoon St-FB+Dev AM]

Intersection: Albert Street-Lagoon Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base + Development AM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Site Access												
2	T1	29	0.0	0.053	4.6	LOS A	0.2	1.3	0.19	0.54	0.19	50.7
3	R2	29	0.0	0.053	5.8	LOS A	0.2	1.3	0.19	0.54	0.19	49.8
Approach		59	0.0	0.053	5.2	LOS A	0.2	1.3	0.19	0.54	0.19	50.3
East: Albert Street												
4	L2	18	0.0	0.024	5.7	LOS A	0.1	0.7	0.14	0.51	0.14	49.5
6	R2	25	0.0	0.024	4.7	LOS A	0.1	0.7	0.14	0.51	0.14	37.8
Approach		43	0.0	0.024	5.1	NA	0.1	0.7	0.14	0.51	0.14	44.4
North: Lagoon Street												
7	L2	1	0.0	0.002	4.6	LOS A	0.0	0.0	0.10	0.50	0.10	40.3
8	T1	1	0.0	0.002	4.5	LOS A	0.0	0.0	0.10	0.50	0.10	50.6
Approach		2	0.0	0.002	4.6	LOS A	0.0	0.0	0.10	0.50	0.10	47.1
West: Albert Street												
10	L2	31	17.2	0.044	3.2	LOS A	0.1	0.9	0.04	0.33	0.04	38.1
11	T1	29	3.6	0.044	0.0	LOS A	0.1	0.9	0.04	0.33	0.04	43.4
12	R2	18	0.0	0.044	3.4	LOS A	0.1	0.9	0.04	0.33	0.04	51.9
Approach		78	8.1	0.044	2.0	NA	0.1	0.9	0.04	0.33	0.04	45.3
All Vehicles		182	3.5	0.053	3.8	NA	0.2	1.3	0.11	0.44	0.11	47.4

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 2 [2 Albert St-Lagoon St-FB+Dev PM]

Intersection: Albert Street-Lagoon Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base + Development PM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Site Access												
2	T1	19	0.0	0.034	4.5	LOS A	0.1	0.8	0.18	0.54	0.18	50.8
3	R2	19	0.0	0.034	5.8	LOS A	0.1	0.8	0.18	0.54	0.18	49.9
Approach		38	0.0	0.034	5.2	LOS A	0.1	0.8	0.18	0.54	0.18	50.3
East: Albert Street												
4	L2	31	0.0	0.024	5.6	LOS A	0.1	0.5	0.07	0.53	0.07	50.0
6	R2	13	8.3	0.024	4.8	LOS A	0.1	0.5	0.07	0.53	0.07	37.7
Approach		43	2.4	0.024	5.3	NA	0.1	0.5	0.07	0.53	0.07	47.7
North: Lagoon Street												
7	L2	5	0.0	0.004	4.6	LOS A	0.0	0.1	0.06	0.51	0.06	39.4
8	T1	1	0.0	0.004	4.5	LOS A	0.0	0.1	0.06	0.51	0.06	50.0
Approach		6	0.0	0.004	4.6	LOS A	0.0	0.1	0.06	0.51	0.06	42.3
West: Albert Street												
10	L2	17	43.8	0.039	3.3	LOS A	0.2	1.2	0.09	0.38	0.09	33.7
11	T1	20	0.0	0.039	0.1	LOS A	0.2	1.2	0.09	0.38	0.09	42.8
12	R2	31	0.0	0.039	3.4	LOS A	0.2	1.2	0.09	0.38	0.09	51.6
Approach		67	10.9	0.039	2.4	NA	0.2	1.2	0.09	0.38	0.09	47.0
All Vehicles		155	5.4	0.039	4.0	NA	0.2	1.2	0.10	0.47	0.10	48.1

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 2 [2 Albert St-Lagoon St-FB+Dev Sat]

Intersection: Albert Street-Lagoon Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base + Development Saturday
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Site Access												
2	T1	26	0.0	0.048	4.5	LOS A	0.2	1.2	0.20	0.55	0.20	50.7
3	R2	26	0.0	0.048	6.0	LOS A	0.2	1.2	0.20	0.55	0.20	49.8
Approach		53	0.0	0.048	5.2	LOS A	0.2	1.2	0.20	0.55	0.20	50.2
East: Albert Street												
4	L2	26	0.0	0.033	5.6	LOS A	0.1	1.0	0.09	0.53	0.09	49.7
6	R2	33	0.0	0.033	4.6	LOS A	0.1	1.0	0.09	0.53	0.09	38.1
Approach		59	0.0	0.033	5.1	NA	0.1	1.0	0.09	0.53	0.09	45.1
North: Lagoon Street												
7	L2	21	0.0	0.014	4.6	LOS A	0.1	0.4	0.08	0.50	0.08	39.0
8	T1	1	0.0	0.014	4.5	LOS A	0.1	0.4	0.08	0.50	0.08	49.7
Approach		22	0.0	0.014	4.6	LOS A	0.1	0.4	0.08	0.50	0.08	39.9
West: Albert Street												
10	L2	3	100.0	0.030	3.3	LOS A	0.1	0.9	0.08	0.32	0.08	33.6
11	T1	24	0.0	0.030	0.1	LOS A	0.1	0.9	0.08	0.32	0.08	43.9
12	R2	26	0.0	0.030	3.4	LOS A	0.1	0.9	0.08	0.32	0.08	52.2
Approach		54	5.9	0.030	2.0	NA	0.1	0.9	0.08	0.32	0.08	49.4
All Vehicles		187	1.7	0.048	4.2	NA	0.2	1.2	0.12	0.47	0.12	47.5

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 3 [3 Ocean St-Albert St-Ex AM]

Intersection: Ocean Street-Albert Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing AM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Ocean Street												
1	L2	20	0.0	0.340	5.7	LOS A	0.2	1.2	0.03	0.02	0.03	49.1
2	T1	620	1.9	0.340	0.1	LOS A	0.2	1.2	0.03	0.02	0.03	49.8
3	R2	7	0.0	0.340	8.0	LOS A	0.2	1.2	0.03	0.02	0.03	47.8
Approach		647	1.8	0.340	0.3	NA	0.2	1.2	0.03	0.02	0.03	49.8
East: Albert Street												
4	L2	4	0.0	0.022	6.5	LOS A	0.1	0.5	0.66	0.75	0.66	40.7
5	T1	1	0.0	0.022	13.7	LOS A	0.1	0.5	0.66	0.75	0.66	27.4
6	R2	3	0.0	0.022	18.1	LOS B	0.1	0.5	0.66	0.75	0.66	38.0
Approach		8	0.0	0.022	11.8	LOS A	0.1	0.5	0.66	0.75	0.66	38.9
North: Ocean Street												
7	L2	4	0.0	0.297	9.1	LOS A	0.4	2.5	0.07	0.02	0.08	22.4
8	T1	535	0.6	0.297	0.3	LOS A	0.4	2.5	0.07	0.02	0.08	49.6
9	R2	15	14.3	0.297	9.7	LOS A	0.4	2.5	0.07	0.02	0.08	46.8
Approach		554	1.0	0.297	0.6	NA	0.4	2.5	0.07	0.02	0.08	49.4
West: Albert Street												
10	L2	21	0.0	0.098	7.3	LOS A	0.3	2.2	0.69	0.82	0.69	38.9
11	T1	2	0.0	0.098	14.2	LOS A	0.3	2.2	0.69	0.82	0.69	11.3
12	R2	14	7.7	0.098	20.5	LOS B	0.3	2.2	0.69	0.82	0.69	40.3
Approach		37	2.9	0.098	12.6	LOS A	0.3	2.2	0.69	0.82	0.69	37.8
All Vehicles		1246	1.4	0.340	0.9	NA	0.4	2.5	0.07	0.05	0.08	49.3

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 3 [3 Ocean St-Albert St-Ex PM]

Intersection: Ocean Street-Albert Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing PM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Ocean Street												
1	L2	9	0.0	0.269	5.6	LOS A	0.1	0.6	0.02	0.02	0.02	49.2
2	T1	502	1.0	0.269	0.0	LOS A	0.1	0.6	0.02	0.02	0.02	49.9
3	R2	5	0.0	0.269	7.1	LOS A	0.1	0.6	0.02	0.02	0.02	47.9
Approach		517	1.0	0.269	0.2	NA	0.1	0.6	0.02	0.02	0.02	49.8
East: Albert Street												
4	L2	7	0.0	0.029	6.2	LOS A	0.1	0.6	0.57	0.72	0.57	42.1
5	T1	1	0.0	0.029	9.9	LOS A	0.1	0.6	0.57	0.72	0.57	29.8
6	R2	6	0.0	0.029	13.3	LOS A	0.1	0.6	0.57	0.72	0.57	39.6
Approach		15	0.0	0.029	9.5	LOS A	0.1	0.6	0.57	0.72	0.57	40.7
North: Ocean Street												
7	L2	1	0.0	0.244	6.9	LOS A	0.0	0.3	0.01	0.01	0.01	22.5
8	T1	467	0.5	0.244	0.0	LOS A	0.0	0.3	0.01	0.01	0.01	49.9
9	R2	3	0.0	0.244	7.3	LOS A	0.0	0.3	0.01	0.01	0.01	48.4
Approach		472	0.4	0.244	0.1	NA	0.0	0.3	0.01	0.01	0.01	49.9
West: Albert Street												
10	L2	11	0.0	0.045	6.5	LOS A	0.1	1.0	0.59	0.75	0.59	40.6
11	T1	1	0.0	0.045	10.1	LOS A	0.1	1.0	0.59	0.75	0.59	10.7
12	R2	11	0.0	0.045	13.5	LOS A	0.1	1.0	0.59	0.75	0.59	41.9
Approach		22	0.0	0.045	10.0	LOS A	0.1	1.0	0.59	0.75	0.59	39.7
All Vehicles		1025	0.7	0.269	0.5	NA	0.1	1.0	0.04	0.04	0.04	49.6

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 3 [3 Ocean St-Albert St-Ex Sat]

Intersection: Ocean Street-Albert Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing Saturday
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Ocean Street												
1	L2	16	0.0	0.301	6.0	LOS A	0.2	1.3	0.04	0.03	0.04	49.1
2	T1	548	0.6	0.301	0.1	LOS A	0.2	1.3	0.04	0.03	0.04	49.8
3	R2	11	0.0	0.301	7.4	LOS A	0.2	1.3	0.04	0.03	0.04	47.7
Approach		575	0.5	0.301	0.4	NA	0.2	1.3	0.04	0.03	0.04	49.7
East: Albert Street												
4	L2	9	0.0	0.056	6.3	LOS A	0.2	1.2	0.64	0.77	0.64	40.9
5	T1	1	0.0	0.056	11.3	LOS A	0.2	1.2	0.64	0.77	0.64	27.8
6	R2	13	0.0	0.056	15.1	LOS B	0.2	1.2	0.64	0.77	0.64	38.2
Approach		23	0.0	0.056	11.4	LOS A	0.2	1.2	0.64	0.77	0.64	39.3
North: Ocean Street												
7	L2	11	0.0	0.258	5.5	LOS A	0.1	0.4	0.02	0.02	0.02	22.5
8	T1	484	0.2	0.258	0.0	LOS A	0.1	0.4	0.02	0.02	0.02	49.9
9	R2	3	0.0	0.258	7.8	LOS A	0.1	0.4	0.02	0.02	0.02	48.3
Approach		498	0.2	0.258	0.2	NA	0.1	0.4	0.02	0.02	0.02	49.3
West: Albert Street												
10	L2	19	11.1	0.119	7.2	LOS A	0.4	2.8	0.67	0.83	0.67	39.0
11	T1	1	0.0	0.119	11.7	LOS A	0.4	2.8	0.67	0.83	0.67	10.4
12	R2	27	0.0	0.119	15.5	LOS B	0.4	2.8	0.67	0.83	0.67	40.7
Approach		47	4.4	0.119	12.1	LOS A	0.4	2.8	0.67	0.83	0.67	39.4
All Vehicles		1143	0.6	0.301	1.0	NA	0.4	2.8	0.07	0.07	0.07	49.0

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 3 [3 Ocean St-Albert St-Ex+Dev AM]

Intersection: Ocean Street-Albert Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing + Development AM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Ocean Street												
1	L2	38	0.0	0.350	5.3	LOS A	0.2	1.3	0.03	0.04	0.04	49.0
2	T1	620	1.9	0.350	0.1	LOS A	0.2	1.3	0.03	0.04	0.04	49.7
3	R2	7	0.0	0.350	8.1	LOS A	0.2	1.3	0.03	0.04	0.04	47.6
Approach		665	1.7	0.350	0.5	NA	0.2	1.3	0.03	0.04	0.04	49.7
East: Albert Street												
4	L2	4	0.0	0.022	6.5	LOS A	0.1	0.5	0.66	0.75	0.66	40.6
5	T1	1	0.0	0.022	14.1	LOS A	0.1	0.5	0.66	0.75	0.66	27.3
6	R2	3	0.0	0.022	18.1	LOS B	0.1	0.5	0.66	0.75	0.66	37.9
Approach		8	0.0	0.022	11.8	LOS A	0.1	0.5	0.66	0.75	0.66	38.9
North: Ocean Street												
7	L2	4	0.0	0.298	9.4	LOS A	0.4	2.6	0.07	0.02	0.08	22.4
8	T1	535	0.6	0.298	0.3	LOS A	0.4	2.6	0.07	0.02	0.08	49.6
9	R2	15	14.3	0.298	10.0	LOS A	0.4	2.6	0.07	0.02	0.08	46.8
Approach		554	1.0	0.298	0.7	NA	0.4	2.6	0.07	0.02	0.08	49.4
West: Albert Street												
10	L2	21	0.0	0.230	8.1	LOS A	0.8	5.4	0.78	0.92	0.85	36.3
11	T1	2	0.0	0.230	15.6	LOS B	0.8	5.4	0.78	0.92	0.85	10.6
12	R2	43	2.4	0.230	21.0	LOS B	0.8	5.4	0.78	0.92	0.85	38.2
Approach		66	1.6	0.230	16.7	LOS B	0.8	5.4	0.78	0.92	0.85	36.8
All Vehicles		1294	1.4	0.350	1.5	NA	0.8	5.4	0.09	0.08	0.10	48.9

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 3 [3 Ocean St-Albert St-Ex+Dev PM]

Intersection: Ocean Street-Albert Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing + Development PM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Ocean Street												
1	L2	40	0.0	0.286	4.9	LOS A	0.1	0.7	0.02	0.04	0.02	49.0
2	T1	502	1.0	0.286	0.0	LOS A	0.1	0.7	0.02	0.04	0.02	49.7
3	R2	5	0.0	0.286	7.1	LOS A	0.1	0.7	0.02	0.04	0.02	47.6
Approach		547	1.0	0.286	0.5	NA	0.1	0.7	0.02	0.04	0.02	49.7
East: Albert Street												
4	L2	7	0.0	0.029	6.2	LOS A	0.1	0.7	0.57	0.72	0.57	42.0
5	T1	1	0.0	0.029	10.4	LOS A	0.1	0.7	0.57	0.72	0.57	29.8
6	R2	6	0.0	0.029	13.3	LOS A	0.1	0.7	0.57	0.72	0.57	39.5
Approach		15	0.0	0.029	9.6	LOS A	0.1	0.7	0.57	0.72	0.57	40.7
North: Ocean Street												
7	L2	1	0.0	0.244	7.2	LOS A	0.0	0.3	0.01	0.01	0.01	22.5
8	T1	467	0.5	0.244	0.0	LOS A	0.0	0.3	0.01	0.01	0.01	49.9
9	R2	3	0.0	0.244	7.6	LOS A	0.0	0.3	0.01	0.01	0.01	48.4
Approach		472	0.4	0.244	0.1	NA	0.0	0.3	0.01	0.01	0.01	49.9
West: Albert Street												
10	L2	11	0.0	0.105	6.5	LOS A	0.3	2.3	0.67	0.83	0.67	39.1
11	T1	1	0.0	0.105	10.6	LOS A	0.3	2.3	0.67	0.83	0.67	10.4
12	R2	29	0.0	0.105	14.2	LOS A	0.3	2.3	0.67	0.83	0.67	40.6
Approach		41	0.0	0.105	12.1	LOS A	0.3	2.3	0.67	0.83	0.67	39.5
All Vehicles		1075	0.7	0.286	0.9	NA	0.3	2.3	0.05	0.07	0.05	49.4

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 3 [3 Ocean St-Albert St-Ex+Dev Sat]

Intersection: Ocean Street-Albert Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing + Development Saturday
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Ocean Street												
1	L2	42	0.0	0.315	5.3	LOS A	0.2	1.5	0.04	0.05	0.04	48.9
2	T1	548	0.6	0.315	0.1	LOS A	0.2	1.5	0.04	0.05	0.04	49.7
3	R2	11	0.0	0.315	7.5	LOS A	0.2	1.5	0.04	0.05	0.04	47.5
Approach		601	0.5	0.315	0.6	NA	0.2	1.5	0.04	0.05	0.04	49.6
East: Albert Street												
4	L2	9	0.0	0.056	6.3	LOS A	0.2	1.2	0.64	0.77	0.64	40.9
5	T1	1	0.0	0.056	11.8	LOS A	0.2	1.2	0.64	0.77	0.64	27.7
6	R2	13	0.0	0.056	15.1	LOS B	0.2	1.2	0.64	0.77	0.64	38.2
Approach		23	0.0	0.056	11.4	LOS A	0.2	1.2	0.64	0.77	0.64	39.2
North: Ocean Street												
7	L2	11	0.0	0.258	5.6	LOS A	0.1	0.5	0.02	0.02	0.02	22.5
8	T1	484	0.2	0.258	0.0	LOS A	0.1	0.5	0.02	0.02	0.02	49.9
9	R2	3	0.0	0.258	8.0	LOS A	0.1	0.5	0.02	0.02	0.02	48.3
Approach		498	0.2	0.258	0.2	NA	0.1	0.5	0.02	0.02	0.02	49.2
West: Albert Street												
10	L2	19	11.1	0.215	7.7	LOS A	0.7	5.1	0.74	0.89	0.78	37.6
11	T1	1	0.0	0.215	12.6	LOS A	0.7	5.1	0.74	0.89	0.78	10.1
12	R2	54	0.0	0.215	16.6	LOS B	0.7	5.1	0.74	0.89	0.78	39.5
Approach		74	2.9	0.215	14.2	LOS A	0.7	5.1	0.74	0.89	0.78	38.6
All Vehicles		1196	0.5	0.315	1.5	NA	0.7	5.1	0.09	0.10	0.09	48.7

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 3 [3 Ocean St-Albert St-FB AM]

Intersection: Ocean Street-Albert Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base AM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Ocean Street												
1	L2	20	0.0	0.405	6.5	LOS A	0.2	1.7	0.03	0.02	0.04	49.1
2	T1	744	1.8	0.405	0.1	LOS A	0.2	1.7	0.03	0.02	0.04	49.8
3	R2	7	0.0	0.405	9.7	LOS A	0.2	1.7	0.03	0.02	0.04	47.7
Approach		772	1.8	0.405	0.4	NA	0.2	1.7	0.03	0.02	0.04	49.8
East: Albert Street												
4	L2	4	0.0	0.032	7.2	LOS A	0.1	0.7	0.76	0.82	0.76	38.1
5	T1	1	0.0	0.032	20.4	LOS B	0.1	0.7	0.76	0.82	0.76	23.6
6	R2	3	0.0	0.032	26.6	LOS B	0.1	0.7	0.76	0.82	0.76	35.1
Approach		8	0.0	0.032	16.1	LOS B	0.1	0.7	0.76	0.82	0.76	36.1
North: Ocean Street												
7	L2	4	0.0	0.357	11.7	LOS A	0.5	3.7	0.08	0.02	0.10	22.3
8	T1	642	0.7	0.357	0.5	LOS A	0.5	3.7	0.08	0.02	0.10	49.5
9	R2	15	14.3	0.357	12.4	LOS A	0.5	3.7	0.08	0.02	0.10	46.6
Approach		661	1.0	0.357	0.8	NA	0.5	3.7	0.08	0.02	0.10	49.3
West: Albert Street												
10	L2	21	0.0	0.147	8.3	LOS A	0.4	3.1	0.80	0.91	0.80	35.9
11	T1	2	0.0	0.147	21.1	LOS B	0.4	3.1	0.80	0.91	0.80	10.5
12	R2	14	7.7	0.147	31.1	LOS C	0.4	3.1	0.80	0.91	0.80	37.7
Approach		37	2.9	0.147	17.5	LOS B	0.4	3.1	0.80	0.91	0.80	35.2
All Vehicles		1478	1.4	0.405	1.1	NA	0.5	3.7	0.07	0.04	0.09	49.2

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 3 [3 Ocean St-Albert St-FB PM]

Intersection: Ocean Street-Albert Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base PM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Ocean Street												
1	L2	9	0.0	0.321	6.2	LOS A	0.1	0.8	0.02	0.01	0.02	49.2
2	T1	602	1.0	0.321	0.1	LOS A	0.1	0.8	0.02	0.01	0.02	49.9
3	R2	5	0.0	0.321	8.1	LOS A	0.1	0.8	0.02	0.01	0.02	47.9
Approach		617	1.0	0.321	0.2	NA	0.1	0.8	0.02	0.01	0.02	49.8
East: Albert Street												
4	L2	7	0.0	0.038	6.7	LOS A	0.1	0.8	0.66	0.78	0.66	40.6
5	T1	1	0.0	0.038	13.3	LOS A	0.1	0.8	0.66	0.78	0.66	27.3
6	R2	6	0.0	0.038	17.6	LOS B	0.1	0.8	0.66	0.78	0.66	37.9
Approach		15	0.0	0.038	11.9	LOS A	0.1	0.8	0.66	0.78	0.66	39.1
North: Ocean Street												
7	L2	1	0.0	0.292	8.0	LOS A	0.1	0.4	0.01	0.00	0.01	22.5
8	T1	561	0.4	0.292	0.0	LOS A	0.1	0.4	0.01	0.00	0.01	49.9
9	R2	3	0.0	0.292	8.5	LOS A	0.1	0.4	0.01	0.00	0.01	48.4
Approach		565	0.4	0.292	0.1	NA	0.1	0.4	0.01	0.00	0.01	49.9
West: Albert Street												
10	L2	11	0.0	0.060	7.1	LOS A	0.2	1.3	0.69	0.81	0.69	38.9
11	T1	1	0.0	0.060	13.4	LOS A	0.2	1.3	0.69	0.81	0.69	10.4
12	R2	11	0.0	0.060	17.9	LOS B	0.2	1.3	0.69	0.81	0.69	40.4
Approach		22	0.0	0.060	12.5	LOS A	0.2	1.3	0.69	0.81	0.69	38.2
All Vehicles		1219	0.7	0.321	0.5	NA	0.2	1.3	0.04	0.03	0.04	49.6

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 3 [3 Ocean St-Albert St-FB Sat]

Intersection: Ocean Street-Albert Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base Saturday
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Ocean Street												
1	L2	16	0.0	0.359	6.7	LOS A	0.3	1.8	0.04	0.02	0.05	49.0
2	T1	658	0.6	0.359	0.1	LOS A	0.3	1.8	0.04	0.02	0.05	49.8
3	R2	11	0.0	0.359	8.6	LOS A	0.3	1.8	0.04	0.02	0.05	47.7
Approach		684	0.6	0.359	0.4	NA	0.3	1.8	0.04	0.02	0.05	49.7
East: Albert Street												
4	L2	9	0.0	0.078	6.9	LOS A	0.2	1.6	0.74	0.84	0.74	38.8
5	T1	1	0.0	0.078	15.7	LOS B	0.2	1.6	0.74	0.84	0.74	24.6
6	R2	13	0.0	0.078	20.8	LOS B	0.2	1.6	0.74	0.84	0.74	35.9
Approach		23	0.0	0.078	14.9	LOS B	0.2	1.6	0.74	0.84	0.74	37.0
North: Ocean Street												
7	L2	11	0.0	0.308	6.1	LOS A	0.1	0.6	0.02	0.01	0.02	22.5
8	T1	581	0.2	0.308	0.1	LOS A	0.1	0.6	0.02	0.01	0.02	49.9
9	R2	3	0.0	0.308	9.3	LOS A	0.1	0.6	0.02	0.01	0.02	48.3
Approach		595	0.2	0.308	0.2	NA	0.1	0.6	0.02	0.01	0.02	49.3
West: Albert Street												
10	L2	19	11.1	0.166	8.1	LOS A	0.5	3.7	0.77	0.90	0.77	36.6
11	T1	1	0.0	0.166	16.2	LOS B	0.5	3.7	0.77	0.90	0.77	9.9
12	R2	27	0.0	0.166	21.3	LOS B	0.5	3.7	0.77	0.90	0.77	38.6
Approach		47	4.4	0.166	15.9	LOS B	0.5	3.7	0.77	0.90	0.77	37.2
All Vehicles		1349	0.5	0.359	1.1	NA	0.5	3.7	0.07	0.06	0.07	49.0

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 3 [3 Ocean St-Albert St-FB+Dev AM]

Intersection: Ocean Street-Albert Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base + Development AM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Ocean Street												
1	L2	38	0.0	0.415	5.8	LOS A	0.3	1.8	0.03	0.03	0.04	49.0
2	T1	744	1.8	0.415	0.1	LOS A	0.3	1.8	0.03	0.03	0.04	49.7
3	R2	7	0.0	0.415	9.8	LOS A	0.3	1.8	0.03	0.03	0.04	47.6
Approach		789	1.7	0.415	0.5	NA	0.3	1.8	0.03	0.03	0.04	49.7
East: Albert Street												
4	L2	4	0.0	0.033	7.2	LOS A	0.1	0.7	0.77	0.82	0.77	38.1
5	T1	1	0.0	0.033	21.2	LOS B	0.1	0.7	0.77	0.82	0.77	23.5
6	R2	3	0.0	0.033	26.6	LOS B	0.1	0.7	0.77	0.82	0.77	35.1
Approach		8	0.0	0.033	16.2	LOS B	0.1	0.7	0.77	0.82	0.77	36.1
North: Ocean Street												
7	L2	4	0.0	0.358	12.0	LOS A	0.5	3.8	0.08	0.02	0.10	22.3
8	T1	642	0.7	0.358	0.5	LOS A	0.5	3.8	0.08	0.02	0.10	49.5
9	R2	15	14.3	0.358	12.8	LOS A	0.5	3.8	0.08	0.02	0.10	46.6
Approach		661	1.0	0.358	0.8	NA	0.5	3.8	0.08	0.02	0.10	49.3
West: Albert Street												
10	L2	21	0.0	0.354	11.9	LOS A	1.2	8.4	0.88	1.00	1.07	31.4
11	T1	2	0.0	0.354	25.8	LOS B	1.2	8.4	0.88	1.00	1.07	9.3
12	R2	43	2.4	0.354	34.0	LOS C	1.2	8.4	0.88	1.00	1.07	33.8
Approach		66	1.6	0.354	26.7	LOS B	1.2	8.4	0.88	1.00	1.07	32.4
All Vehicles		1525	1.4	0.415	1.9	NA	1.2	8.4	0.09	0.07	0.12	48.7

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 3 [3 Ocean St-Albert St-FB+Dev PM]

Intersection: Ocean Street-Albert Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base + Development PM
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Ocean Street												
1	L2	40	0.0	0.338	5.1	LOS A	0.1	0.9	0.02	0.04	0.03	49.0
2	T1	602	1.0	0.338	0.1	LOS A	0.1	0.9	0.02	0.04	0.03	49.7
3	R2	5	0.0	0.338	8.2	LOS A	0.1	0.9	0.02	0.04	0.03	47.7
Approach		647	1.0	0.338	0.4	NA	0.1	0.9	0.02	0.04	0.03	49.7
East: Albert Street												
4	L2	7	0.0	0.038	6.7	LOS A	0.1	0.8	0.67	0.78	0.67	40.5
5	T1	1	0.0	0.038	14.0	LOS A	0.1	0.8	0.67	0.78	0.67	27.2
6	R2	6	0.0	0.038	17.6	LOS B	0.1	0.8	0.67	0.78	0.67	37.8
Approach		15	0.0	0.038	11.9	LOS A	0.1	0.8	0.67	0.78	0.67	39.0
North: Ocean Street												
7	L2	1	0.0	0.293	8.3	LOS A	0.1	0.5	0.01	0.00	0.01	22.5
8	T1	561	0.4	0.293	0.0	LOS A	0.1	0.5	0.01	0.00	0.01	49.9
9	R2	3	0.0	0.293	8.8	LOS A	0.1	0.5	0.01	0.00	0.01	48.4
Approach		565	0.4	0.293	0.1	NA	0.1	0.5	0.01	0.00	0.01	49.9
West: Albert Street												
10	L2	11	0.0	0.144	7.2	LOS A	0.4	3.1	0.77	0.88	0.77	36.9
11	T1	1	0.0	0.144	14.2	LOS A	0.4	3.1	0.77	0.88	0.77	9.9
12	R2	29	0.0	0.144	18.9	LOS B	0.4	3.1	0.77	0.88	0.77	38.7
Approach		41	0.0	0.144	15.8	LOS B	0.4	3.1	0.77	0.88	0.77	37.5
All Vehicles		1268	0.7	0.338	0.9	NA	0.4	3.1	0.05	0.06	0.05	49.3

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 3 [3 Ocean St-Albert St-FB+Dev Sat]

Intersection: Ocean Street-Albert Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base + Development Saturday
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Ocean Street												
1	L2	42	0.0	0.373	5.7	LOS A	0.3	2.1	0.04	0.04	0.05	48.9
2	T1	658	0.6	0.373	0.1	LOS A	0.3	2.1	0.04	0.04	0.05	49.7
3	R2	11	0.0	0.373	8.7	LOS A	0.3	2.1	0.04	0.04	0.05	47.5
Approach		711	0.6	0.373	0.6	NA	0.3	2.1	0.04	0.04	0.05	49.6
East: Albert Street												
4	L2	9	0.0	0.078	6.9	LOS A	0.2	1.7	0.74	0.84	0.74	38.8
5	T1	1	0.0	0.078	16.5	LOS B	0.2	1.7	0.74	0.84	0.74	24.5
6	R2	13	0.0	0.078	20.8	LOS B	0.2	1.7	0.74	0.84	0.74	35.9
Approach		23	0.0	0.078	14.9	LOS B	0.2	1.7	0.74	0.84	0.74	37.0
North: Ocean Street												
7	L2	11	0.0	0.308	6.3	LOS A	0.1	0.7	0.02	0.01	0.02	22.5
8	T1	581	0.2	0.308	0.1	LOS A	0.1	0.7	0.02	0.01	0.02	49.9
9	R2	3	0.0	0.308	9.6	LOS A	0.1	0.7	0.02	0.01	0.02	48.3
Approach		595	0.2	0.308	0.2	NA	0.1	0.7	0.02	0.01	0.02	49.3
West: Albert Street												
10	L2	19	11.1	0.304	10.0	LOS A	1.0	7.4	0.83	0.97	0.98	34.1
11	T1	1	0.0	0.304	18.9	LOS B	1.0	7.4	0.83	0.97	0.98	9.3
12	R2	54	0.0	0.304	24.3	LOS B	1.0	7.4	0.83	0.97	0.98	36.4
Approach		74	2.9	0.304	20.6	LOS B	1.0	7.4	0.83	0.97	0.98	35.5
All Vehicles		1402	0.5	0.373	1.7	NA	1.0	7.4	0.09	0.09	0.10	48.7

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.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

MOVEMENT SUMMARY

Site: 4 [4 Pittwater Rd-Ocean St-Ex AM]

Intersection: Pittwater Road-Ocean Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing AM
Signals - Fixed Time Isolated Cycle Time = 119 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1594	4.3	0.406	8.0	LOS A	12.7	92.5	0.46	0.41	0.46	53.0
3a	R1	441	1.2	0.650	32.5	LOS C	18.7	132.0	0.90	1.01	1.23	36.7
Approach		2035	3.6	0.650	13.3	LOS A	18.7	132.0	0.55	0.54	0.62	48.3
NorthEast: Ocean Street												
24a	L1	454	1.2	0.837	52.2	LOS D	27.0	190.6	1.00	0.94	1.12	30.3
Approach		454	1.2	0.837	52.2	LOS D	27.0	190.6	1.00	0.94	1.12	30.3
North: Pittwater Road												
7b	L3	1	0.0	0.048	16.2	LOS B	0.8	10.1	0.42	0.33	0.42	47.4
8	T1	1563	6.2	0.667	15.8	LOS B	28.6	207.2	0.70	0.64	0.70	47.6
Approach		1564	6.2	0.667	15.8	LOS B	28.6	207.2	0.70	0.64	0.70	47.6
All Vehicles		4053	4.3	0.837	18.6	LOS B	28.6	207.2	0.66	0.62	0.71	45.1

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	53	52.8	LOS E	0.2	0.2	0.94	0.94
P3	North Full Crossing	53	52.8	LOS E	0.2	0.2	0.94	0.94
All Pedestrians		105	52.8	LOS E			0.94	0.94

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: 4 [4 Pittwater Rd-Ocean St-Ex PM]

Intersection: Pittwater Road-Ocean Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing PM
Signals - Fixed Time Isolated Cycle Time = 128 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1601	2.8	0.641	9.2	LOS A	28.0	199.4	0.53	0.49	0.53	52.1
3a	R1	362	0.9	0.533	17.3	LOS B	17.0	120.0	0.85	0.90	0.94	43.4
Approach		1963	2.5	0.641	10.7	LOS A	28.0	199.4	0.59	0.56	0.61	50.2
NorthEast: Ocean Street												
24a	L1	364	0.0	0.787	55.2	LOS D	22.3	155.9	1.00	0.90	1.07	29.6
Approach		364	0.0	0.787	55.2	LOS D	22.3	155.9	1.00	0.90	1.07	29.6
North: Pittwater Road												
7b	L3	4	0.0	0.404	16.9	LOS B	14.2	102.1	0.50	0.45	0.50	47.1
8	T1	1509	3.4	0.404	10.4	LOS A	14.2	102.1	0.50	0.45	0.50	51.2
Approach		1514	3.4	0.404	10.4	LOS A	14.2	102.1	0.50	0.45	0.50	51.2
All Vehicles		3841	2.6	0.787	14.8	LOS B	28.0	199.4	0.59	0.55	0.61	47.4

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	53	57.3	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	53	57.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	57.3	LOS E			0.95	0.95

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: 4 [4 Pittwater Rd-Ocean St-Ex Sat]

Intersection: Pittwater Road-Ocean Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing Saturday
Signals - Fixed Time Isolated Cycle Time = 131 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1467	2.1	0.354	7.0	LOS A	11.3	80.3	0.40	0.36	0.40	53.8
3a	R1	424	1.2	0.592	23.9	LOS B	19.6	138.8	0.86	0.96	1.06	40.2
Approach		1892	1.9	0.592	10.8	LOS A	19.6	138.8	0.50	0.49	0.55	50.0
NorthEast: Ocean Street												
24a	L1	409	0.3	0.781	52.7	LOS D	24.9	175.0	0.99	0.89	1.03	30.2
Approach		409	0.3	0.781	52.7	LOS D	24.9	175.0	0.99	0.89	1.03	30.2
North: Pittwater Road												
7b	L3	3	0.0	0.433	19.2	LOS B	16.4	117.4	0.54	0.49	0.54	45.7
8	T1	1553	2.6	0.433	12.8	LOS A	16.4	117.4	0.54	0.49	0.54	49.6
Approach		1556	2.6	0.433	12.8	LOS A	16.4	117.4	0.54	0.49	0.54	49.5
All Vehicles		3857	2.0	0.781	16.0	LOS B	24.9	175.0	0.57	0.53	0.60	46.6

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	53	58.8	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	53	58.8	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	58.8	LOS E			0.95	0.95

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: 4 [4 Pittwater Rd-Ocean St-Ex+Dev AM]

Intersection: Pittwater Road-Ocean Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing + Development AM
Signals - Fixed Time Isolated Cycle Time = 119 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1594	4.3	0.406	8.0	LOS A	12.7	92.5	0.46	0.41	0.46	53.0
3a	R1	459	1.1	0.676	33.3	LOS C	19.4	137.3	0.91	1.02	1.25	36.4
Approach		2053	3.6	0.676	13.7	LOS A	19.4	137.3	0.56	0.55	0.63	48.1
NorthEast: Ocean Street												
24a	L1	483	1.1	0.891	59.4	LOS E	31.3	221.3	1.00	1.00	1.22	28.6
Approach		483	1.1	0.891	59.4	LOS E	31.3	221.3	1.00	1.00	1.22	28.6
North: Pittwater Road												
7b	L3	1	0.0	0.048	16.2	LOS B	0.8	10.1	0.42	0.33	0.42	47.4
8	T1	1563	6.2	0.667	15.8	LOS B	28.6	207.2	0.70	0.64	0.70	47.6
Approach		1564	6.2	0.667	15.8	LOS B	28.6	207.2	0.70	0.64	0.70	47.6
All Vehicles		4100	4.3	0.891	19.9	LOS B	31.3	221.3	0.66	0.64	0.73	44.3

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	53	52.8	LOS E	0.2	0.2	0.94	0.94
P3	North Full Crossing	53	52.8	LOS E	0.2	0.2	0.94	0.94
All Pedestrians		105	52.8	LOS E			0.94	0.94

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: 4 [4 Pittwater Rd-Ocean St-Ex+Dev PM]

Intersection: Pittwater Road-Ocean Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing + Development PM
Signals - Fixed Time Isolated Cycle Time = 128 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1601	2.8	0.641	9.2	LOS A	28.0	199.4	0.53	0.49	0.53	52.1
3a	R1	393	0.8	0.577	19.8	LOS B	18.5	130.1	0.87	0.93	1.00	42.1
Approach		1994	2.4	0.641	11.3	LOS A	28.0	199.4	0.60	0.58	0.62	49.7
NorthEast: Ocean Street												
24a	L1	383	0.0	0.828	58.2	LOS E	24.4	170.9	1.00	0.93	1.12	28.9
Approach		383	0.0	0.828	58.2	LOS E	24.4	170.9	1.00	0.93	1.12	28.9
North: Pittwater Road												
7b	L3	4	0.0	0.404	16.9	LOS B	14.2	102.1	0.50	0.45	0.50	47.1
8	T1	1509	3.4	0.404	10.4	LOS A	14.2	102.1	0.50	0.45	0.50	51.2
Approach		1514	3.4	0.404	10.4	LOS A	14.2	102.1	0.50	0.45	0.50	51.2
All Vehicles		3891	2.6	0.828	15.6	LOS B	28.0	199.4	0.60	0.56	0.62	46.9

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	53	57.3	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	53	57.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	57.3	LOS E			0.95	0.95

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: 4 [4 Pittwater Rd-Ocean St-Ex+Dev Sat]

Intersection: Pittwater Road-Ocean Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Existing + Development Saturday
Signals - Fixed Time Isolated Cycle Time = 131 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1467	2.1	0.354	7.0	LOS A	11.3	80.3	0.40	0.36	0.40	53.8
3a	R1	451	1.2	0.628	25.5	LOS B	20.8	147.3	0.88	0.98	1.10	39.5
Approach		1918	1.9	0.628	11.3	LOS A	20.8	147.3	0.51	0.50	0.56	49.6
NorthEast: Ocean Street												
24a	L1	436	0.2	0.831	56.5	LOS D	28.0	196.7	1.00	0.93	1.10	29.3
Approach		436	0.2	0.831	56.5	LOS D	28.0	196.7	1.00	0.93	1.10	29.3
North: Pittwater Road												
7b	L3	3	0.0	0.433	19.2	LOS B	16.4	117.4	0.54	0.49	0.54	45.7
8	T1	1553	2.6	0.433	12.8	LOS A	16.4	117.4	0.54	0.49	0.54	49.6
Approach		1556	2.6	0.433	12.8	LOS A	16.4	117.4	0.54	0.49	0.54	49.5
All Vehicles		3909	2.0	0.831	16.9	LOS B	28.0	196.7	0.58	0.55	0.62	46.0

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	53	58.8	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	53	58.8	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	58.8	LOS E			0.95	0.95

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: 4 [4 Pittwater Rd-Ocean St-FB AM]

Intersection: Pittwater Road-Ocean Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base AM
Signals - Fixed Time Isolated Cycle Time = 119 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1913	4.3	0.497	8.7	LOS A	17.1	124.3	0.50	0.45	0.50	52.5
3a	R1	441	1.2	0.699	40.4	LOS C	19.3	136.5	0.93	1.03	1.37	34.0
Approach		2354	3.7	0.699	14.6	LOS B	19.3	136.5	0.58	0.56	0.66	47.6
NorthEast: Ocean Street												
24a	L1	544	1.2	1.004	100.3	LOS F	47.2	334.0	1.00	1.22	1.58	21.7
Approach		544	1.2	1.004	100.3	LOS F	47.2	334.0	1.00	1.22	1.58	21.7
North: Pittwater Road												
7b	L3	1	0.0	0.048	16.2	LOS B	0.8	10.1	0.42	0.33	0.42	47.4
8	T1	1876	6.2	0.805	18.5	LOS B	40.2	292.4	0.82	0.76	0.82	46.0
Approach		1877	6.2	0.805	18.5	LOS B	40.2	292.4	0.82	0.76	0.82	46.0
All Vehicles		4775	4.4	1.004	25.9	LOS B	47.2	334.0	0.72	0.71	0.83	41.4

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	53	52.8	LOS E	0.2	0.2	0.94	0.94
P3	North Full Crossing	53	52.8	LOS E	0.2	0.2	0.94	0.94
All Pedestrians		105	52.8	LOS E			0.94	0.94

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: 4 [4 Pittwater Rd-Ocean St-FB PM]

Intersection: Pittwater Road-Ocean Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base PM
Signals - Fixed Time Isolated Cycle Time = 128 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1921	2.8	0.959	46.3	LOS D	95.2	679.1	0.82	0.96	1.05	34.1
3a	R1	362	0.9	0.584	27.9	LOS B	17.4	122.6	0.89	0.98	1.14	38.5
Approach		2283	2.5	0.959	43.4	LOS D	95.2	679.1	0.83	0.96	1.07	34.7
NorthEast: Ocean Street												
24a	L1	437	0.0	0.943	78.6	LOS F	33.7	236.2	1.00	1.08	1.36	24.9
Approach		437	0.0	0.943	78.6	LOS F	33.7	236.2	1.00	1.08	1.36	24.9
North: Pittwater Road												
7b	L3	4	0.0	0.485	17.7	LOS B	18.4	132.4	0.54	0.49	0.54	46.6
8	T1	1812	3.4	0.485	11.2	LOS A	18.4	132.4	0.54	0.49	0.54	50.6
Approach		1816	3.4	0.485	11.2	LOS A	18.4	132.4	0.54	0.49	0.54	50.6
All Vehicles		4536	2.6	0.959	33.9	LOS C	95.2	679.1	0.73	0.78	0.88	38.0

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	53	57.3	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	53	57.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	57.3	LOS E			0.95	0.95

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: 4 [4 Pittwater Rd-Ocean St-FB Sat]

Intersection: Pittwater Road-Ocean Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base Saturday
Signals - Fixed Time Isolated Cycle Time = 131 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1761	2.1	0.428	7.5	LOS A	14.7	104.7	0.43	0.39	0.43	53.4
3a	R1	424	1.2	0.642	32.7	LOS C	20.1	141.9	0.90	1.02	1.23	36.6
Approach		2185	1.9	0.642	12.4	LOS A	20.1	141.9	0.52	0.51	0.59	49.0
NorthEast: Ocean Street												
24a	L1	492	0.2	0.937	75.4	LOS F	38.1	267.1	1.00	1.06	1.31	25.4
Approach		492	0.2	0.937	75.4	LOS F	38.1	267.1	1.00	1.06	1.31	25.4
North: Pittwater Road												
7b	L3	3	0.0	0.520	20.3	LOS B	21.3	152.6	0.59	0.54	0.59	45.1
8	T1	1863	2.6	0.520	13.8	LOS A	21.3	152.6	0.59	0.54	0.59	48.9
Approach		1866	2.6	0.520	13.8	LOS A	21.3	152.6	0.59	0.54	0.59	48.8
All Vehicles		4543	2.0	0.937	19.8	LOS B	38.1	267.1	0.60	0.58	0.67	44.5

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	53	58.8	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	53	58.8	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	58.8	LOS E			0.95	0.95

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: 4 [4 Pittwater Rd-Ocean St-FB+Dev AM]

Intersection: Pittwater Road-Ocean Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base + Development AM
Signals - Fixed Time Isolated Cycle Time = 119 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1913	4.3	0.497	8.7	LOS A	17.1	124.3	0.50	0.45	0.50	52.5
3a	R1	459	1.1	0.727	41.1	LOS C	20.1	142.0	0.94	1.04	1.39	33.8
Approach		2372	3.7	0.727	15.0	LOS B	20.1	142.0	0.58	0.56	0.67	47.4
NorthEast: Ocean Street												
24a	L1	574	1.1	1.058	133.9	LOS F	57.9	409.0	1.00	1.37	1.83	17.9
Approach		574	1.1	1.058	133.9	LOS F	57.9	409.0	1.00	1.37	1.83	17.9
North: Pittwater Road												
7b	L3	1	0.0	0.048	16.2	LOS B	0.8	10.1	0.42	0.33	0.42	47.4
8	T1	1876	6.2	0.805	18.5	LOS B	40.2	292.4	0.82	0.76	0.82	46.0
Approach		1877	6.2	0.805	18.5	LOS B	40.2	292.4	0.82	0.76	0.82	46.0
All Vehicles		4822	4.3	1.058	30.5	LOS C	57.9	409.0	0.73	0.74	0.87	39.2

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	53	52.8	LOS E	0.2	0.2	0.94	0.94
P3	North Full Crossing	53	52.8	LOS E	0.2	0.2	0.94	0.94
All Pedestrians		105	52.8	LOS E			0.94	0.94

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: 4 [4 Pittwater Rd-Ocean St-FB+Dev PM]

Intersection: Pittwater Road-Ocean Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base + Development PM
Signals - Fixed Time Isolated Cycle Time = 128 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1921	2.8	0.959	46.3	LOS D	95.2	679.1	0.82	0.96	1.05	34.1
3a	R1	393	0.8	0.633	30.1	LOS C	18.9	132.9	0.91	1.01	1.20	37.7
Approach		2314	2.5	0.959	43.6	LOS D	95.2	679.1	0.83	0.97	1.08	34.6
NorthEast: Ocean Street												
24a	L1	456	0.0	0.984	95.4	LOS F	39.1	273.9	1.00	1.16	1.50	22.3
Approach		456	0.0	0.984	95.4	LOS F	39.1	273.9	1.00	1.16	1.50	22.3
North: Pittwater Road												
7b	L3	4	0.0	0.485	17.7	LOS B	18.4	132.4	0.54	0.49	0.54	46.6
8	T1	1812	3.4	0.485	11.2	LOS A	18.4	132.4	0.54	0.49	0.54	50.6
Approach		1816	3.4	0.485	11.2	LOS A	18.4	132.4	0.54	0.49	0.54	50.6
All Vehicles		4585	2.6	0.984	35.9	LOS C	95.2	679.1	0.73	0.80	0.91	37.2

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	53	57.3	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	53	57.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	57.3	LOS E			0.95	0.95

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: 4 [4 Pittwater Rd-Ocean St-FB+Dev Sat]

Intersection: Pittwater Road-Ocean Street
Project Name: 1294-1300 Pittwater Road & 2-4 Albert Street, Narrabeen
Suburb: Narrabeen NSW 2101
Site Category: Future Base + Development Saturday
Signals - Fixed Time Isolated Cycle Time = 131 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Pittwater Road												
2	T1	1761	2.1	0.428	7.5	LOS A	14.7	104.7	0.43	0.39	0.43	53.4
3a	R1	451	1.2	0.681	34.2	LOS C	21.3	150.6	0.92	1.04	1.27	36.1
Approach		2212	1.9	0.681	12.9	LOS A	21.3	150.6	0.53	0.52	0.60	48.6
NorthEast: Ocean Street												
24a	L1	517	0.2	0.985	95.3	LOS F	45.4	318.6	1.00	1.15	1.47	22.4
Approach		517	0.2	0.985	95.3	LOS F	45.4	318.6	1.00	1.15	1.47	22.4
North: Pittwater Road												
7b	L3	3	0.0	0.520	20.3	LOS B	21.3	152.6	0.59	0.54	0.59	45.1
8	T1	1863	2.6	0.520	13.8	LOS A	21.3	152.6	0.59	0.54	0.59	48.9
Approach		1866	2.6	0.520	13.8	LOS A	21.3	152.6	0.59	0.54	0.59	48.8
All Vehicles		4595	2.0	0.985	22.6	LOS B	45.4	318.6	0.61	0.60	0.69	43.0

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.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	53	58.8	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	53	58.8	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		105	58.8	LOS E			0.95	0.95

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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