



PROPOSED AGED CARE FACILITY FOR THOMPSON HEALTH CARE

26 DARLEY STREET EAST, MONA VALE

Traffic and Parking Assessment

30th July 2019

Ref: 19026

Prepared by

Terraffic Pty Ltd
Traffic and Parking Consultants



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1. INTRODUCTION

This report has been prepared to accompany a Development Application to Northern Beaches Council for the construction of an aged care facility to be located 26 Darley Street East, Mona Vale (Figures 1 and 2).

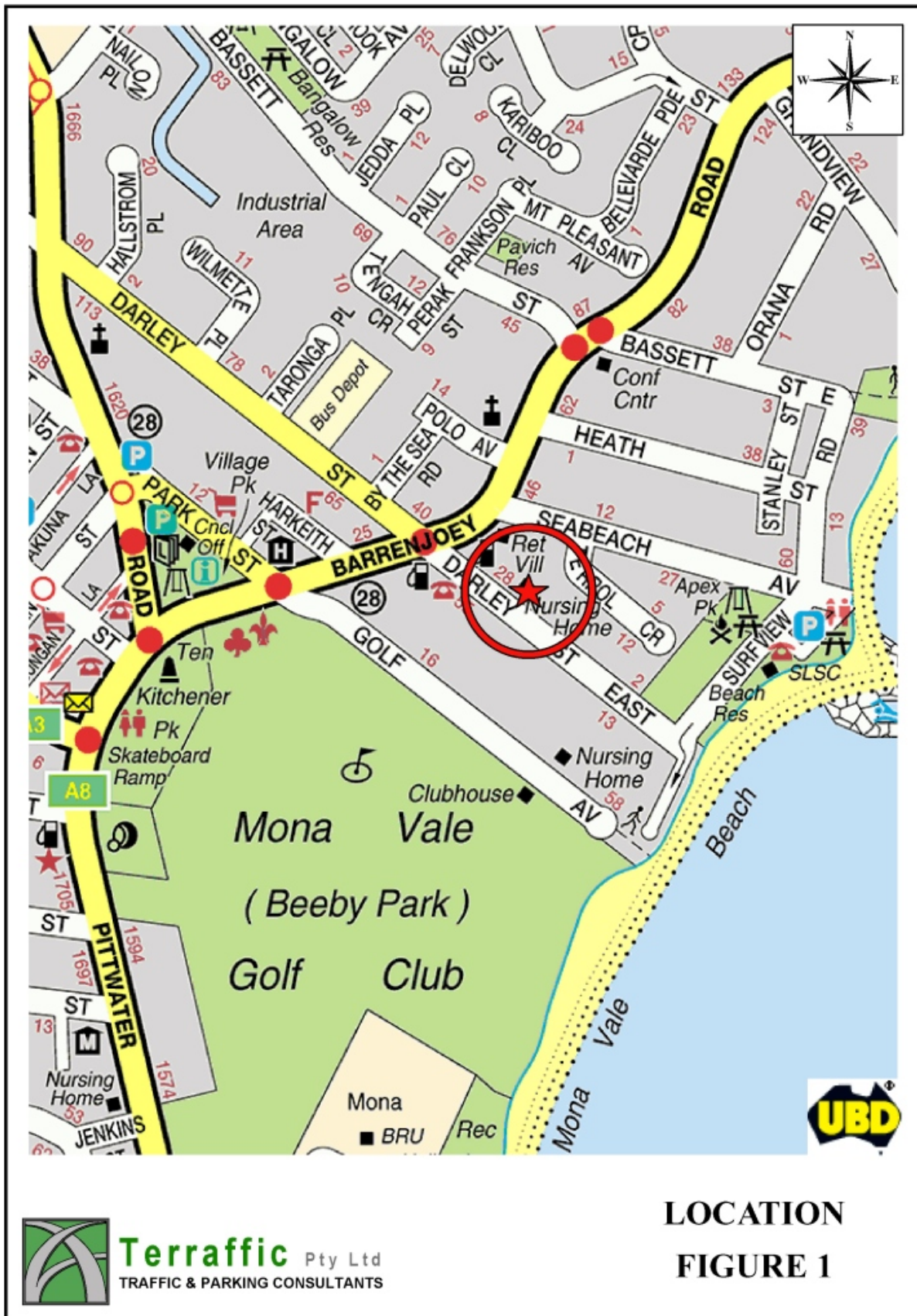
The subject site is located on the northern side of Darley Street East approximately 130m east of Barrenjoey Road. It has a total site area of 1,749m² with a frontage of 34.515m to Darley Street East.

Existing Site Development

The existing site development comprises a 33 bed residential care facility known as *Seabeach Gardens Nursing Home*. The existing facility has no off-street carparking or loading facilities however provision has been made on-site for an ambulance which parks along a single lane driveway (Right of Carriageway) located adjacent to the eastern site boundary. The driveway serves 13 parking spaces at the rear of site that belong to the neighbouring *Baldwin Living Seabeach Gardens* retirement village.



Aerial photograph of the site







Photograph of an ambulance parked on-site and a passing car belonging to the neighbouring *Baldwin Living Seabeach Gardens* development

The existing 33 bed aged care facility is staffed by a maximum of 12 employees with those staff parking on-street in the vicinity of the site.

Development Proposal

The proposed development comprises the demolition of the existing nursing home and construction of a boutique 51 bed nursing home under the controls of the State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004. The facility will employ a maximum of 19 staff during the day on weekdays as follows:

Position title	Number
Director of Nursing	1
Deputy Director of Nursing	1
Administration Officer	1
Registered Nurse	2
Nursing Assistant	4
Cleaners	2
Chef	1
Catering Attendant	2
Laundry Attendant	2
Recreational Activities Officer	2
Maintenance Officer	1
Total	19



The proposal will be served by a total of 17 parking spaces comprising:

- 1 x ambulance bay on ground level
- 5 x resident visitor parking spaces in a new basement
- 11 x staff parking spaces in a new basement

In addition to the parking provision is a dedicated loading bay in the basement that can accommodate typical courier vans. Unlike the current arrangement where deliveries are made on-street, deliveries will now be conveniently made on-site.

Vehicular access to the site is via a 5.5m wide combined entry/exit driveway off Darley Street East located adjacent to the western site boundary. The driveway narrows to a single lane approximately 6.0m into the site and will branch off at the rear of the site to serve the proposed basement carpark and the existing parking spaces serving the neighbouring retirement village. A designated ambulance bay is located midway along the single lane driveway on ground level to comply with the SEPP.

The proposed vehicular access arrangements will be controlled by a standard traffic light system that will be operated by detector loops installed in the pavement. The traffic signals will control entering traffic and vehicles exiting the basement and ground level carpark serving the neighbouring retirement village.

The existing Right of Carriageway (ROW) along the eastern site boundary will be dissolved with a new ROW created along the western site boundary to formalise the proposed access arrangements.

Public Transport Accessibility

The subject site has convenient access to the following bus service operated by Sydney Buses:

Route B1 B-Line Mona Vale to City Wynyard via Narrabeen, Dee Why, Brookvale, Mosman and Neutral Bay (operates daily)



-
- Route E54** Mona Vale to Milsons Point (Express Service) via Warriewood, Narrabeen, Dee Why, Brookvale, Manly Vale, Mosman, Neutral Bay and North Sydney Station (operates daily)
- Route E60** Mona Vale to Chatswood (Express Service) via Narrabeen, Dee Why, Beacon Hill, Frenchs Forest and Roseville (operates daily)
- Route E88** North Avalon to City Wynyard (Express Service) via Mona Vale, Narrabeen, Mosman and Neutral Bay (operates daily)
- Route E89** Avalon to City Wynyard (Express Service) via Mona Vale, Narrabeen, Mosman and Neutral Bay (operates daily)
- Route L90** Palm Beach to City Wynyard (Limited Stops) via Avalon, Newport, Narrabeen, Brookvale, Mosman and Neutral Bay (operates daily)
- Route 151** Mona Vale to City QVB via Narrabeen, Dee Why, Brookvale, Mosman, Neutral Bay and North Sydney Station (operates daily)
- Route 155** Bayview Garden Village to Narrabeen via Mona Vale (operates daily)
- Route 156** McCarrs Creek to Mona Vale via Church Point and Bayview (operates daily)
- Route 182** Mona Vale to Narrabeen via Warriewood and Elanora Heights (operates daily)
- Route 185** Mona Vale to Warringah Mall via Warriewood and Dee Why (operates daily)
- Route 188** Mona Vale to City Wynyard (Express Service) via Narrabeen, Dee Why, Brookvale, Mosman, Neutral Bay and North Sydney Station (operates daily)
- Route 196** Mona Vale to Gordon Station via Ingleside, Terrey Hills, Belrose and St Ives (operates daily)
- Route 197** Mona Vale to Macquarie University via Ingleside, Terrey Hills, Belrose, St Ives and Gordon Station (operates daily)
- Route 199** Palm Beach to Manly Wharf via Avalon, Newport, Mona Vale, Narrabeen and Brookvale (operates daily)



Local Bus Services

Plans of the proposed development prepared by Gartner Trovato Architects are reproduced in Appendix A.

The purpose of this report is to assess the traffic and parking implications of the development proposal.



2. PARKING ASSESSMENT

SEPP Parking Requirement

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 specifies the following car parking requirement for Residential Care Facilities:

48 Standards that cannot be used to refuse development consent for residential care facilities

A consent authority must not refuse consent to a development application made pursuant to this Chapter for the carrying out of development for the purpose of a residential care facility on any of the following grounds:

(d) parking for residents and visitors: if at least the following is provided:

- (i) 1 parking space for each 10 beds in the residential care facility (or 1 parking space for each 15 beds if the facility provides care only for persons with dementia), and
- (ii) 1 parking space for each 2 persons to be employed in connection with the development and on duty at any one time, and
- (iii) 1 parking space suitable for an ambulance.

Application of those requirements to the proposed residential care facility yields a total parking requirement of 16 spaces calculated as follows:

51 beds @ 1 space per 10 beds	5 car spaces
19 staff @ 1 space per 2 staff	10 car spaces
1 x ambulance bay	1 space
Total Requirement	16 spaces

The proposed development satisfies the SEPP requirement with the provision of 17 parking spaces comprising 16 spaces in the basement carpark for staff and visitors and an ambulance bay on ground level.



Car Park Compliance

The basement carpark and access arrangements have been designed to satisfy the following requirements contained in the Australian Standard *AS/NZS2890.1-2004: "Off-Street Car Parking"*:

- Class 1A (long-stay) staff car spaces are a minimum 2.4m x 5.4m
- Class 3 (short-stay) visitor parking spaces are a minimum 2.6m x 5.4m
- An additional 300mm has been provided to spaces adjacent a wall or obstruction
- A minimum manoeuvring aisle width of 5.8m has been provided
- Columns have been located in accordance with Clause 5.2 of the Standard
- A 1.0m wide dead-end aisle extension has been provided
- The single lane curved ramp satisfies the dimensional requirements in Figure 2.9 of the Standard
- The first 6m of the access ramp from the property boundary does not exceed 5% (1 in 20)
- Ramp grades do not exceed 20% (1 in 5) and are measured along the inside curve
- Ramp transitions do not exceed 12.5% (1 in 8) over a distance of 2.0m
- A minimum headroom clearance of 2.2m has been provided in the basement
- Pedestrian sight line triangles have been provided

The courier loading bay in the basement has also been conveniently located next to a storage area and has been designed to satisfy Clause 4.10 of the Standard by providing 2.0m clearance at rear of the space (in the aisle) and 500mm clearance to the side.

The disabled parking space has been designed in accordance with the Australian Standard *AS/NZS2890.6:2009 – "Off-street parking for people with disabilities"* as follows:

- A 5.4m long x 2.4m wide dedicated (*non-shared*) parking space
- An adjacent *shared* area that is also 5.4m long x 2.4m wide
- A minimum headroom of 2.5m above the disabled spaces
- Pavement cross-falls in disabled spaces do not exceed 2.5% (1 in 40) in any direction

In the circumstances, it can be concluded that the proposed development has no unacceptable parking, access or servicing implications.



3. TRAFFIC ASSESSMENT

Existing Road Network

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services (RMS) is illustrated on Figure 3 and comprises the following:

State Roads

Barrenjoey Road
Pittwater Road

Regional Roads

Darley Street

As can be seen, Barrenjoey Road is a classified State Road performing an arterial road function. It typically carries 6 traffic lanes through Mona Vale with traffic separated by a raised median island.

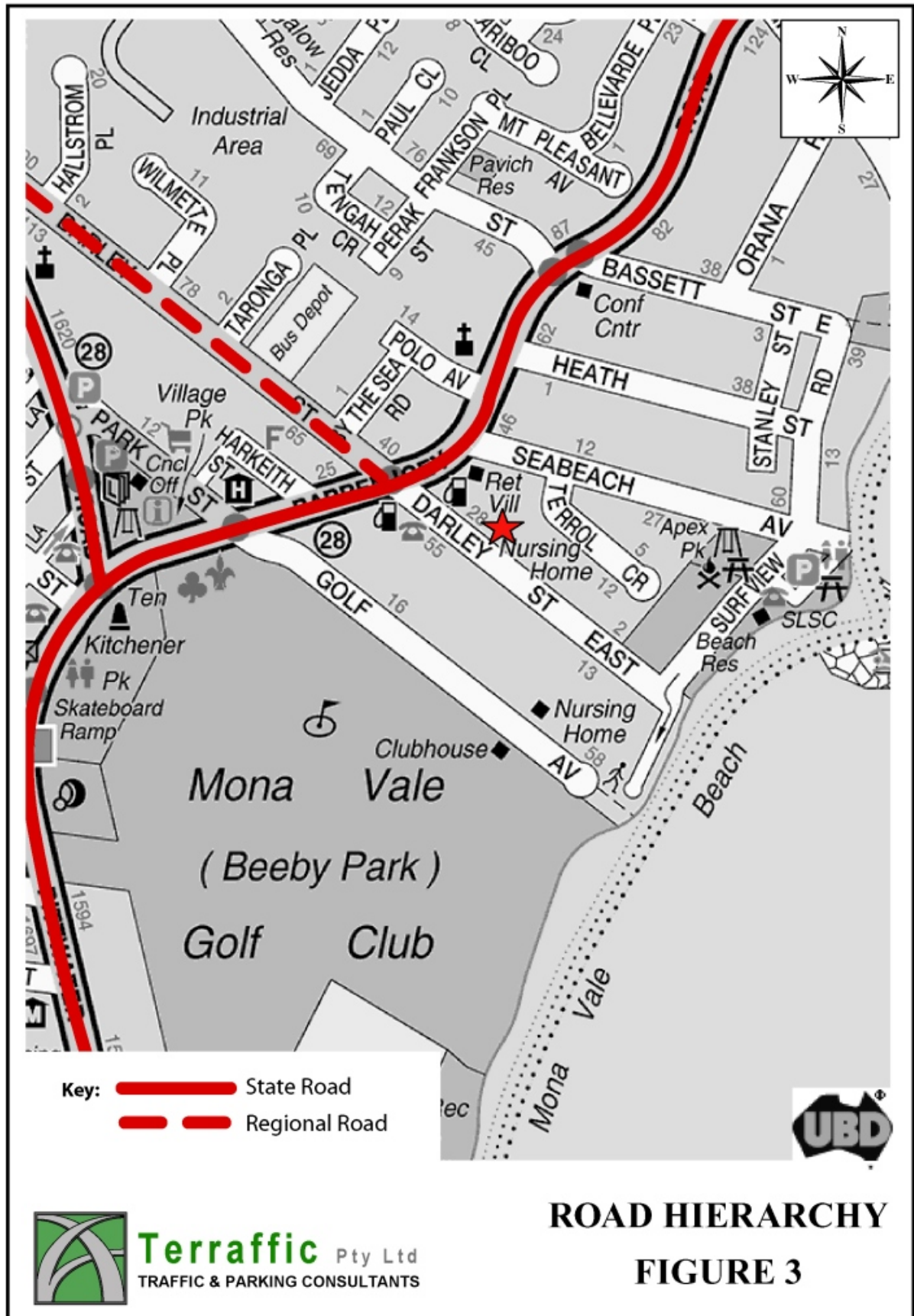
Darley Street East is an unclassified *Local Road* that connects Barrenjoey Road to Surfview Road. It typically carries 4 traffic lanes although the kerbside lanes are generally used for parking. It has a pavement width of approximately 11m and is restricted to a speed limit of 50km/h in the vicinity of the site.

The intersection of Barrenjoey Road and Darley Street East is controlled by traffic signals with all turns permitted at the intersection.

Existing Traffic Conditions

An indication of the existing traffic conditions on the road network in the vicinity of the site is provided by peak period traffic surveys undertaken at the intersection of Darley Street East and the existing driveway serving the site and the carpark at the rear of the site serving the neighbouring retirement village. The survey was carried out between 7.00-9.00am and 4.00-6.00pm on Thursday 4th July 2019 and included a parking accumulation of the rear carpark.

The detailed results of the surveys are reproduced in full in Appendix B and reveal that:





- during the morning peak period (7.45-8.45am), the two-way traffic flow on Darley Street East was 291 vehicles per hour (vph) comprising 142vph heading eastbound and 149vph heading westbound.
- at that time, only 1 vehicle entered the driveway and proceeded to the rear carpark.
- during the evening peak period (4.15-5.15pm), the two-way traffic flow on Darley Street East was 359vph comprising 251vph heading eastbound and 108vph heading westbound.
- at that time, only 2 vehicles exited the driveway from the rear carpark.

Traffic Generating Potential

An indication of the traffic generation potential of the existing and proposed development is provided by reference to the Roads and Maritime Services *Guide to Traffic Generating Developments (October 2002)*. The traffic generation rates specified in the Guidelines are based on extensive surveys of a wide range of land uses throughout Sydney and regional NSW and nominate the following traffic generation rates that apply to the subject development:

Housing for Aged and Disabled	0.1-0.2 trips per dwelling
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While the RMS rate refers to dwellings, this assessment will adopt a conservative rate of 0.2 trips per room that will comprise vehicle movements generated by staff and visitors. Application of this rate to the proposed aged care facility yields a traffic generating potential in the order of 10 vehicle trips per hour (vtph) calculated as follows:

51 rooms @ 0.2vtph per room	10vtph
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As can be appreciated, the majority of that traffic will comprise staff arriving in the morning and departing in the evening. Based on this scenario, the likely breakdown of traffic will be as follows:



	Morning Peak Period			Evening Peak Period		
	Inbound	Outbound	Total	Inbound	Outbound	Total
Staff	7	1	8	1	7	8
Visitors	1	1	2	1	1	2
Total	8	2	10	2	8	10

It should be noted that the level of traffic generated by the proposal in peak periods (10vtph) is consistent with the parking provision recommended by the SEPP (15 spaces).

While the existing site development is not served by any off-street parking facilities, the traffic generation of the proposed development should be discounted by the traffic generating potential of the existing 33 bed nursing home on the site. Application of the abovementioned RMS traffic generation rate to the existing site development yields a traffic generation potential in the order of 7vtph during the weekday peak periods calculated as follows:

33 rooms @ 0.2vtph per room 7vtph

To that end, the proposed development will generate up to 3 additional vehicle trips on the road network during peak periods as follows:

Proposed site development	10vtph
Existing site development	7vtph
Nett increase in traffic	3vtph

It will be readily appreciated that the additional traffic generated by the proposed development during peak periods is relatively minor (3vtph) which will not have any noticeable or unacceptable effect on the road network serving the site in terms of road network capacity or traffic-related environmental effect.



Combined Traffic Generating Potential

As noted in the foregoing, the proposed access driveway will also be providing vehicular access to the 13 parking spaces at the rear of site that belong to the neighbouring *Baldwin Living Seabeach Gardens* retirement village. When including the traffic generated by this development, the proposed access driveway will accommodate the following levels of traffic during peak periods:

	Morning Peak Period			Evening Peak Period		
	Inbound	Outbound	Total	Inbound	Outbound	Total
Proposed Development	8	2	10	2	8	10
Neighbouring Site	1	0	1	0	2	2
Total	9	2	11	2	10	12

This level of traffic equates to approximately one vehicle movement every 5 minutes during peak periods. As can be appreciated, the proposed traffic light system will comfortably accommodate these movements and provide a safe environment for users.

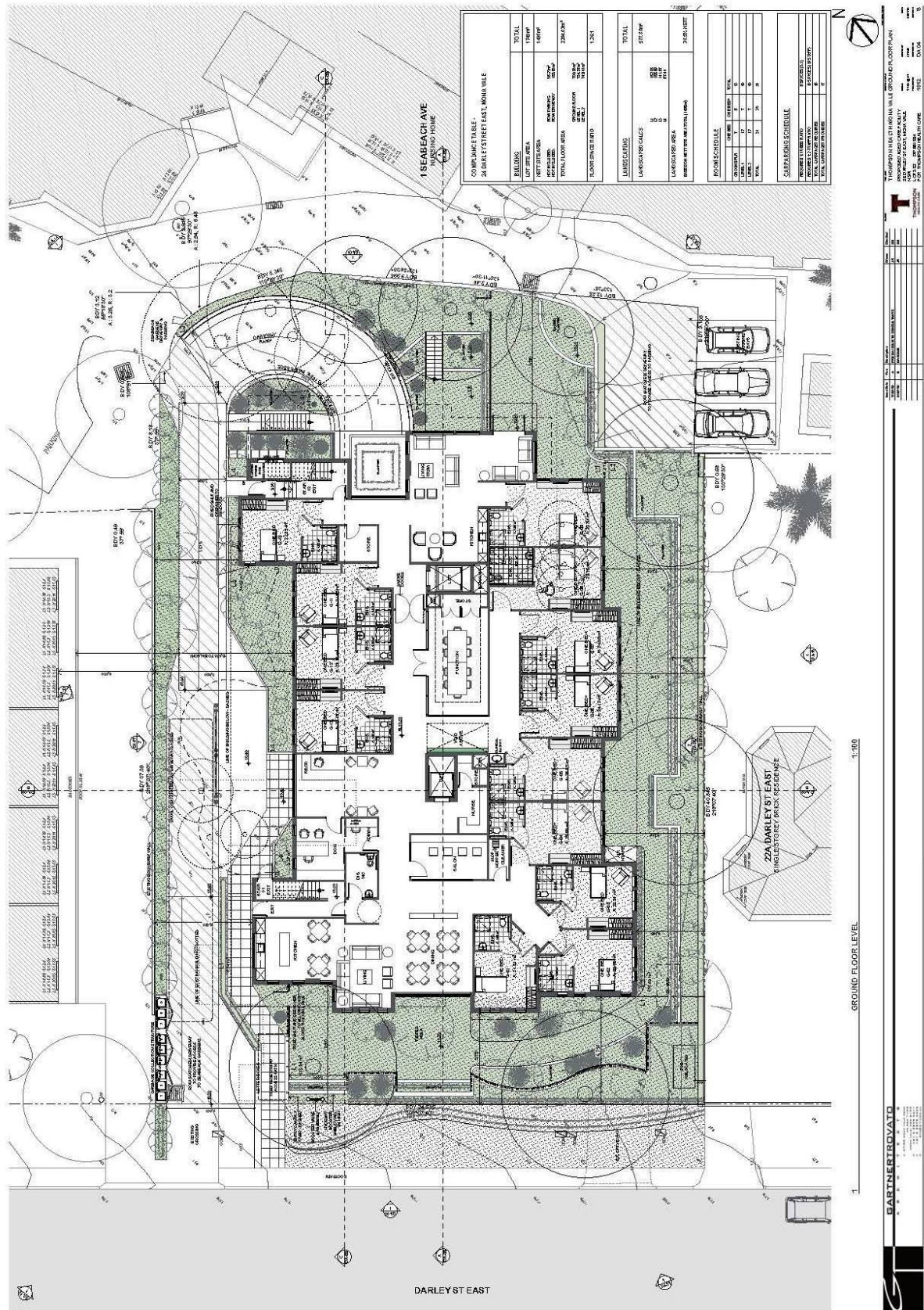
In the circumstances, it can be concluded that the proposed development has no unacceptable traffic implications.

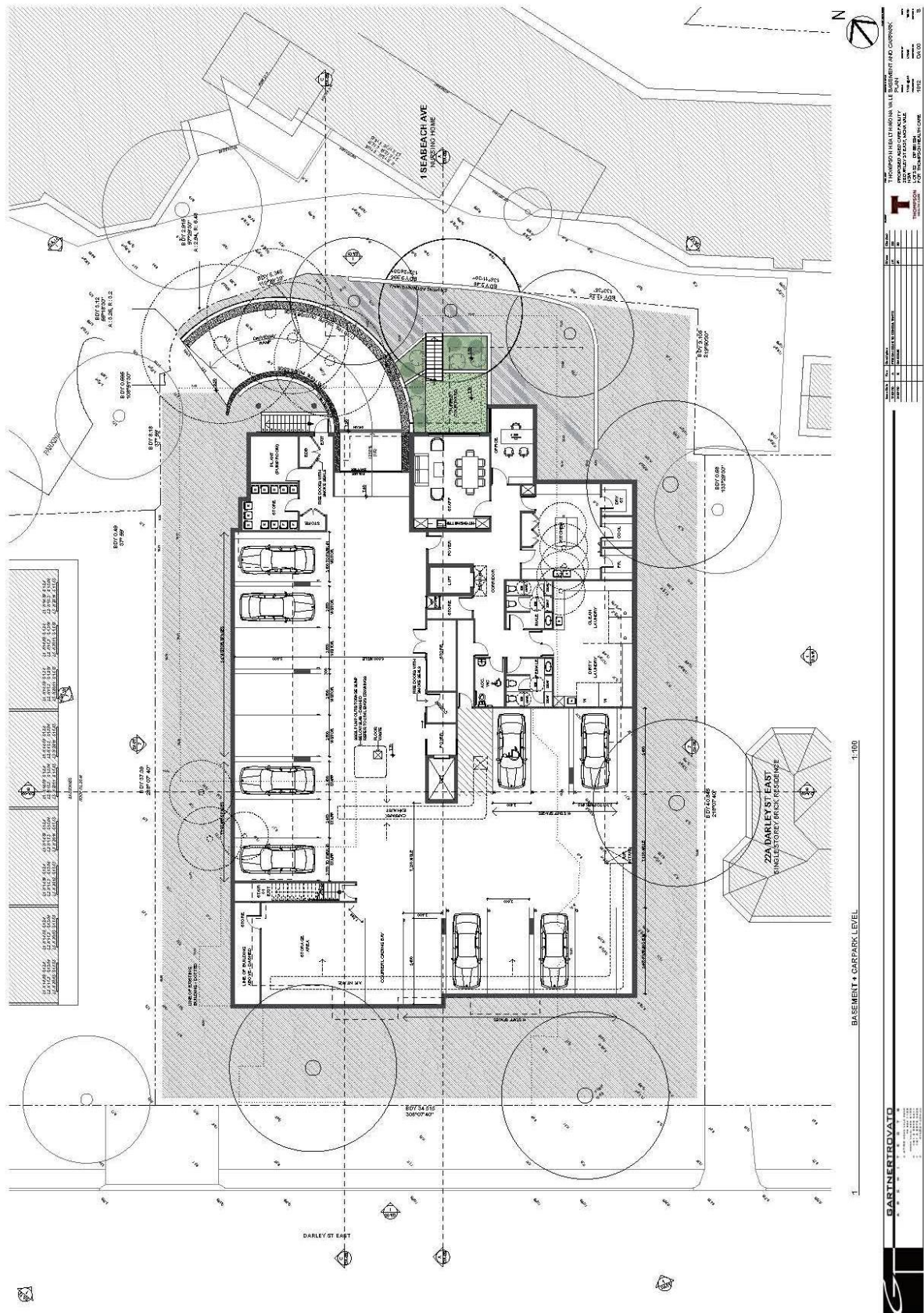


TERRAFFIC PTY LTD

APPENDIX A

PLANS OF THE PROPOSED DEVELOPMENT







APPENDIX B

TRAFFIC COUNT DATA



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

All Vehicles

	WEST		NORTH		EAST		
	Darley Rd		Seabeach		Darley St		
Time Per	L	T	R	L	T	R	TOTAL
0700 - 0715	0	25	1	0	23	0	49
0715 - 0730	0	40	0	0	33	0	73
0730 - 0745	0	24	0	0	31	1	56
0745 - 0800	0	37	0	0	39	0	76
0800 - 0815	0	30	0	0	28	0	58
0815 - 0830	0	29	0	0	37	0	66
0830 - 0845	1	46	0	0	45	0	92
0845 - 0900	0	32	1	0	35	0	68
Period End	1	263	2	0	271	1	538

Start 8

CP

Accum

7

7

8

8

8

8

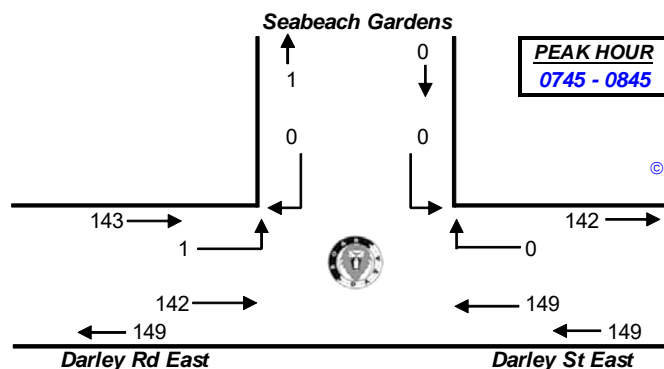
9

8

End 8

	WEST		NORTH		EAST		
	Darley Rd		Seabeach		Darley St		
Peak Per	L	T	R	L	T	R	TOTAL
0700 - 0800	0	126	1	0	126	1	254
0715 - 0815	0	131	0	0	131	1	263
0730 - 0830	0	120	0	0	135	1	256
0745 - 0845	1	142	0	0	149	0	292
0800 - 0900	1	137	1	0	145	0	284

PEAK HR	1	142	0	0	149	0	292
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© Copyright ROAR DATA

Client : Terrafic Pty. Ltd.

Job No/Name : 7137 MONA VALE Seabeach Gardens

Day/Date : Thursday 4th July 2019

All Vehicles

	WEST		NORTH		EAST		
	Darley Rd		Seabeach		Darley St		
Time Per	L	T	R	L	T	R	TOTAL
1600 - 1615	0	54	0	0	19	0	73
1615 - 1630	0	78	0	0	29	0	107
1630 - 1645	0	54	1	0	27	0	82
1645 - 1700	0	61	0	0	24	0	85
1700 - 1715	0	58	1	0	28	0	87
1715 - 1730	1	61	0	0	18	0	80
1730 - 1745	0	50	0	0	12	0	62
1745 - 1800	0	55	1	0	11	0	67
Period End	1	471	3	0	168	0	643

Start 11

CP

Accum

11

11

10

10

9

10

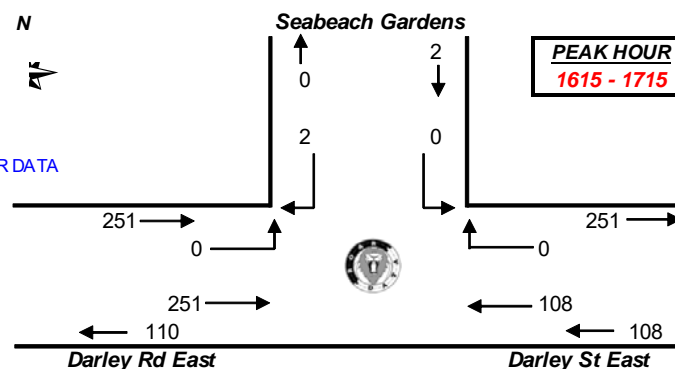
10

9

End 9

	WEST		NORTH		EAST		
	Darley Rd		Seabeach		Darley St		
Peak Per	L	T	R	L	T	R	TOTAL
1600 - 1700	0	247	1	0	99	0	347
1615 - 1715	0	251	2	0	108	0	361
1630 - 1730	1	234	2	0	97	0	334
1645 - 1745	1	230	1	0	82	0	314
1700 - 1800	1	224	2	0	69	0	296

PEAK HOUR	0	251	2	0	108	0	296
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