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Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness

10 July 2024

Reference: 230217.01FC

Morrison Design Partnership  
Suite 302, 69 Christie Street  
St Leonards NSW 2065  
Attention: Rachel Story

### **PRELIMINARY CONSTRUCTION TRAFFIC MANAGEMENT PLAN OF RESIDENTIAL AGED CARE FACILITY & INDEPENDENT LIVING UNITS AT 50 - 88 PARRAWEEEN STREET & 59 - 67 GERARD STREET, CREMORNE**

Dear Rachel,

Reference is made to your request to provide a preliminary Construction Traffic Management Plan (CTMP) for the Residential Aged Care Facility & Independent Living at 50 – 88 Parraween Street & 59 – 67 Gerard Street, Cremorne. This Construction Traffic Management Plan (CTMP) is to address the Secretary's Environmental Assessment Requirements.

It is recommended that a CTMP be formally conditioned as part of the development application due to any associated changes to this CTMP as more detailed information becomes available after the development application stage. It is noted that the information contained within this CTMP is preliminary in nature, and will be modified throughout the detailed preparation of a CTMP when further information in relation to truck sizes, build methodology and vehicle movements are known from the builder.

#### **1 Site Location**

The subject site has two (2) road frontages to Parraween Street to the south and Gerard Street to the north. In addition to this, 50 Parraween Street has frontage to an unnamed laneway at the rear of the site. The site is currently occupied by a mix of single dwellings and residential flat buildings on each lot and vehicular access to each lot is provided either from Parraween Street or Gerard Street.

The site is located within close proximity to commercial and retail facilities, with the southern side of Parraween Street being zoned *MU1 – Mixed Use* under the *North Sydney Local Environmental Plan 2013*. The subject site is currently zoned *R4 – High Density Residential* and is subject to the *North Sydney Development Control Plans 2013*.

### Gerard Street

- TfNSW Classified Regional Secondary Road (No. 2036);
- Approximately 13m wide two-way carriageway facilitating two lanes in each direction and kerbside parking;
- Signposted 50km/h speed limit;
- Signposted “Clearway 6:00 AM – 10:00 AM, MON – FRI” along the southern side of the road and “Clearway 3:00 PM – 7:00 PM, MON – FRI” along the northern side of the road.

### Parraween Street

- Unclassified Local Road;
- Approximately 12m wide two-way carriageway facilitating one traffic-flow lane in each direction with intermittent parking available along both sides of the road with 90-degree and parallel parking provided;
- Signposted 40km/h speed limit;
- Time-restricted and metered parking of varying periods available along intermittently along both sides of the road, including both 90-degree and parallel parking;
- Linemarked motorcycle parking spaces available along the northern side of the road in close proximity to the site.

## **2 Proposed Development**

The proposed development has the following characteristics relevant to traffic and parking impacts for the purposes of this assessment:

- Construction of a residential Aged Care Facility (RACF) and Independent Living Units (ILU) including:
  - 41 x beds for Residential (Aged) Care;
  - 15 staff required to operate and assist the residential aged care and the ancillary uses associated with the ILU and aged care facility. The ancillary uses of the site consist of the following:
    - Reception area;
    - RACF dining areas and ILU dining areas;
    - Lounge areas;
    - Pool;
    - Gymnasium;
    - Day Spa and Hair Salon.
  - 58 x Seniors Living dwellings consisting of:
    - 1 x one-bedroom unit;
    - 26 x two-bedroom units;
    - 30 x three-bedroom units;
    - 1 x four-bedroom unit.

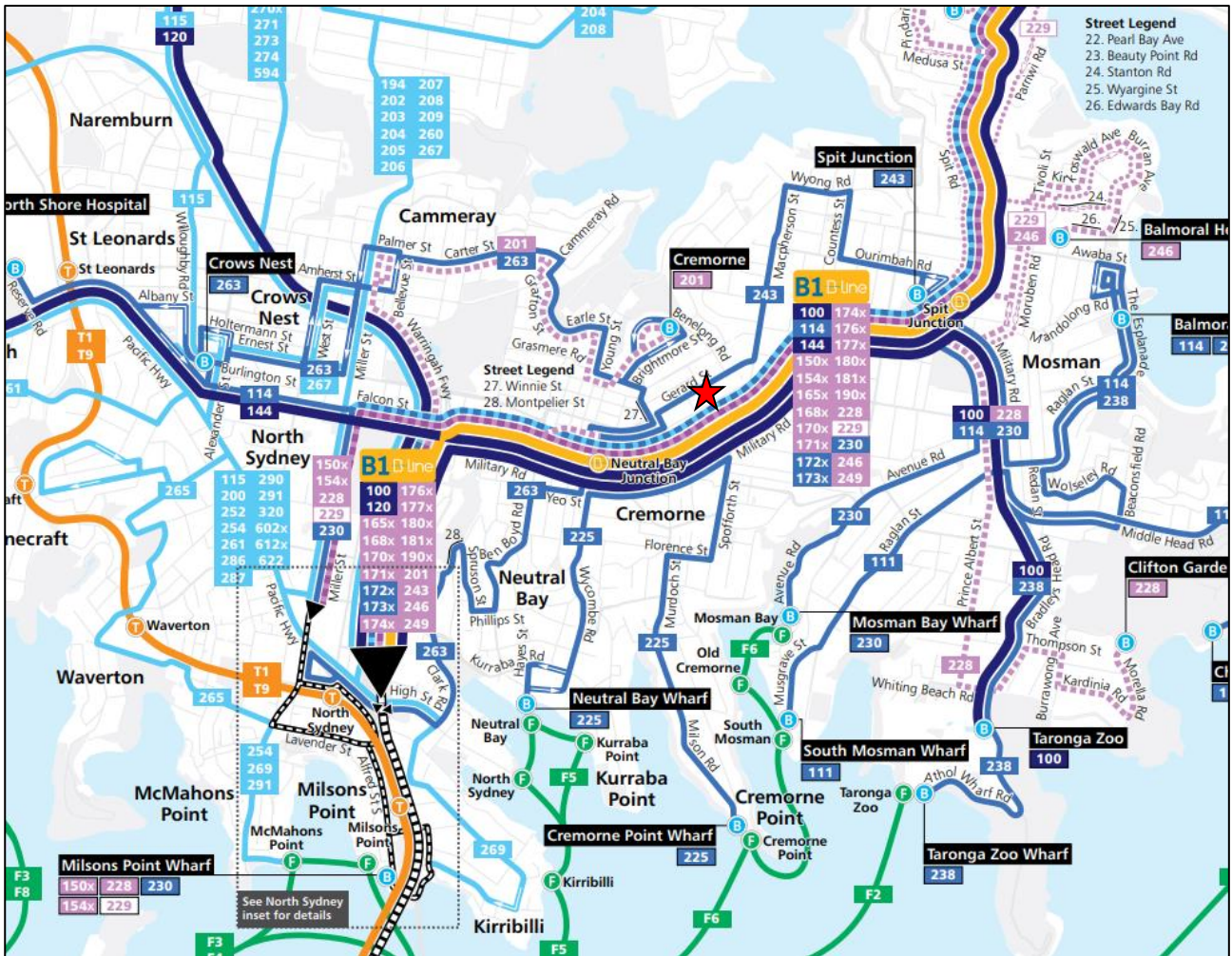
- Basement parking levels with vehicular access via a two-way driveway from Parraween Street accommodating 88 car parking spaces and loading facilities.
- A loading dock is proposed to accommodate two (2) loading bays with both spaces capable of accommodating vehicles up to an 8.8m length Medium Rigid Vehicle (including ambulances).

### **3 Public Transport**

The subject site has access to existing bus stop (ID: 209036) located approximately 260m walking distance to the south of the site on Military Road and bus stop (ID: 209067) on Gerard Street located approximately 150m walking distance to the east of the site. The bus stops service the following existing bus routes provided by Keolis Downer Northern Beaches:

- 100 (Taronga Zoo to City QVB [Loop Service]);
- 114 (Balmoral to Royal North Shore Hospital);
- 144 (Manly to Chatswood via St Leonards);
- 150X (Manly to Milsons Point [Express Service]);
- 165X (South Curl Curl to City Wynyard [Express Service]);
- 170X (Manly to City Wynyard [Express Service]);
- 172X (Warringah Mall to City Wynyard via North Balgowlah [Express Service]);
- 173X (Warringah Mall to City Wynyard via Balgowlah Shops [Express Service]);
- 174X (Narraweena to City Wynyard [Express Service]);
- 176X (Dee Why to City Wynyard via North Curl Curl [Express Service]);
- 177X (Dee Why to City Wynyard via Wingala [Express Service]);
- 228 (Clifton Gardens to Milsons Point);
- 229 (Beauty Point to Milsons Point via Balmoral Heights);
- 230 (Mosman Wharf to Milsons Point via North Sydney);
- 243 (Spit Junction to Neutral Bay and City Wynyard via North Cremorne);
- 246 (Balmoral Heights to City Wynyard);
- 249 (Beauty Point to City Wynyard).

The location of the site subject to the surrounding public transport network is shown in **Figure 1** below.



Site Location

**FIGURE 1: PUBLIC TRANSPORT NETWORK MAP**

#### 4 Duration of Construction

Construction is expected to occur over a total duration of 15 months. The expected milestones and durations are as follows.

**TABLE 1: DURATION OF CONSTRUCTION STAGES**

Activity	Duration
Demolition & Excavation	8 months
Structure	12 months which overlaps with 5 months of the excavation
Fit out	8 months which overlaps with the 7 months of structure
<b>Total</b>	<b>15 months</b>

This timeframe is indicative only and can possibly change due to delays, weather and construction certification details.

## **5 Construction Hours of Work**

The work associated with the construction of the development shall be carried out between the general hours of construction as stated within the Council conditions of consent, which is typical for all CTMP.

Typical hours of construction are 7 am to 5 pm Mondays to Fridays and between 8 am and 1 pm on Saturday. No work is to be carried out on Sunday or public holidays.

The enforcement of these hours and conditions of work is the responsibility of the site contractor and any other delegated authority. All sub-contractors and associated workmen are to follow the hours and conditions of work as instructed by the site contractor. Any works or activities outside of the approved hours of work must be approved by Council prior to carrying out the work.

## **6 Construction Site Access**

Considering the location and constraint of the site and surrounding environs, it is considered that construction vehicle will be capable of entering and exiting the site in a forward direction during construction, especially demolition and excavation stages. During construction of the buildings, a Works Zone will be required along both site frontages for construction deliveries and concrete pours to take place. Both frontages of the site from Gerard Street and Parraween Street have large frontages to facilitate the temporary use of a Works Zone.

During the excavation and demolition stages, all construction vehicle access to and from the site will be in a forward direction, with the use of proposed Works Zone during construction, concrete pours and fitout to be operated as forward in / forward out where possible to do so. Any reverse movements into or out of the site and Works Zone will be the subject of a Traffic Guidance Scheme, but reverse movements will be avoided where possible to avoid and temporary delays to the road network and to maximise pedestrian safety.

Gerard Street and Parraween Street have direct access from an arterial road, being Military Road. An assessment of the largest vehicle that will access each street from the arterial road network will be assessed as part of the detailed CTMP as part of the conditions of consent.

If warranted under the detailed assessment, the following can be considered:

- Limiting large vehicle access to Parraween Street (limited to 12.5m length Heavy Rigid Vehicle or truck and dog combinations [no articulated vehicles]);
- Larger vehicle deliveries can be undertaken from Gerard Street (limited to 20m length Articulated Vehicles);
- Limitation imposed on the use of Parraween Street during high pedestrian periods of the nearby shops on the southern side of Parraween Street (i.e. Saturday and Sundays).

Further, any damage done to Council property including the existing road, verge or street trees along Gerard Street or Parraween Street by construction traffic related to the subject site is to be repaired as part of the dilapidation survey and bond.

An appropriate washing facility will be provided on-site within the property boundary at each driveway along with cattle grid shakers at the vehicular entries/exits to prevent spoil material being tracked off the site onto surrounding roadways.

## 7 Work Zones

During construction of the buildings, a Works Zone will be required along both site frontages for construction deliveries and concrete pours to take place. Both frontages of the site from Gerard Street and Parraween Street have large frontages to facilitate the temporary use of a Works Zone.

The use of proposed Works Zone during construction, concrete pours and fitout to be operated as forward in / forward out where possible to do so. Any reverse movements into or out of the Works Zone will be the subject of a Traffic Guidance Scheme, but reverse movements will be avoided where possible to avoid and temporary delays to the road network and to maximise pedestrian safety.

Type B hoarding must be installed on the site boundaries of Gerrard and Parraween Streets, whilst Class A hoarding will be installed along all other boundaries. Type B hoardings will permit safe access within the public domain along Gerard Street and Parraween Streets during the use of construction vehicles.

## 8 Construction Staff & Parking Requirements

The expected staff requirements for the construction are as follows:

**TABLE 2: EXPECTED CONSTRUCTION STAFF VOLUMES**

Activity	Average Number of Staff on site	Maximum expected Staff on-site at any one time
Demolition	20	30
Excavation	15	25
Structure	60	150
Fitout	60	150

It is expected that as a worst case, an average of 60 works will be on-site during the structure and fitout periods, whilst a absolute maximum of 150 works will be on-site during rare occasions (typically corresponding to concrete pours).

The peak traffic generation for construction workers will generally occur early in the morning (7am) and finish in the afternoon (3-5pm). Construction worker traffic does not typically coincide with either heavy construction vehicular traffic or commuter traffic peak hours.

The contractor shall encourage carpooling amongst construction staff as well as the use of public transport where possible to minimise private vehicle use. The use of available public transport (as detailed in **Section 3**) and utilisation of carpooling is considered reasonable and should be utilised by all construction staff who do not require the explicit use of their own vehicle.

When the basement is constructed and certified (if necessary), it will be capable of accommodating staff parking demand during the structure and fitout stages, alleviating overflow parking during the internal finish / fitout period which generates the highest staff parking demand.

## 9 Construction Traffic

An estimate of the construction traffic generated by the works is summarised in **Table 3** below.

**TABLE 3: EXPECTED CONSTRUCTION TRAFFIC**

Stage	Number of Trucks	Largest Truck
Demolition	6 x waste collection vehicles per day	19m length Truck and Dog
Excavation	15 x construction vehicle per day 1 x waste collection vehicles per day	19m length Truck and Dog & 19m-20m length Articulated Vehicle
Structure	5 x construction vehicles per day 2 x waste collection vehicle per day	
Fitout	10 x construction vehicles per day 2 x waste collection vehicle per day	
Concrete Pours	Peak of 30 x concrete trucks per pour (typically maximum 6 concrete trucks per hour); A total of 20 major concrete pours	

Construction traffic generated by the development is relatively low, with a peak of 10 hourly construction vehicle movements expected during normal operations. These movements by construction vehicles will generally occur throughout the day. Heavy construction vehicular traffic does not typically coincide with either commuter traffic AM or PM peak hours or construction worker traffic generation which will generally occur early in the morning (7:00am) and finish in the afternoon from 3:00pm to 5:00pm.

The absolute maximum construction generated by the proposal will occur during major concrete pours, where there will be a maximum of 6 concrete trucks per hour, relating to a maximum of 12 vehicle movements (6 in, 6 out).

The level of private vehicle traffic in conjunction with the heavy vehicle traffic specified in **Table 3** above is not expected to have a significant or lasting adverse impact on the surrounding road network. Construction traffic will be easily managed by the site contractor who will coordinate all deliveries including concrete trucks.

## 10 Construction Vehicle Haulage

All construction vehicles required to access the site will utilise the existing road network. Gerard Street and Parraween Street have direct access from an arterial road, being Military Road. An assessment of the largest vehicle that will access each street from the arterial road network will be assessed as part of the detailed CTMP as part of the conditions of consent.

If warranted under the detailed assessment, the following can be considered:

- Limiting large vehicle access to Parraween Street (limited to 12.5m length Heavy Rigid Vehicle or truck and dog combinations [no articulated vehicles]);

- Larger vehicle deliveries can be undertaken from Gerard Street (limited to 20m length Articulated Vehicles);
- Limitation imposed on the use of Parraween Street during high pedestrian periods of the nearby shops on the southern side of Parraween Street (i.e. Saturday and Sundays).

## **11 Pedestrian Management**

The site frontages along Gerard Street and Parraween Street have existing pedestrian footpaths. On the outside of the construction fence, these frontages are to be free of any waste, construction material or trip hazards associated with the development. Site fencing along the frontages should also be regularly inspected for potential trip hazards or encroachment onto the verge where pedestrians will walk. Only authorised personnel are permitted on-site in areas restricted by construction fencing and must be inducted by the site manager/OH&S officer.

As a construction work zone is required along both Gerard Street / Parraween Street in front of the site, it will be necessary to implement type B hoarding to ensure pedestrian access is maintained along the frontage roads.

## **12 Traffic Control Plans**

Traffic Guidance Schemes (TGS) will be prepared as part of the provision of a detailed CTMP as part of the conditions of consent. The installation and implemented of TGS are to be installed by a suitably qualified contractor. The TGS's are based on Roads & Maritime Services (RMS) Traffic Control at Worksites and AS1742.3:2009.

A minimum of fourteen (14) days notification must be provided to adjoining property owners prior to the implementation of any temporary traffic control measure. Implementation of the TGS shall be installed by a suitably qualified contractor for the duration of the proposed construction.

### 13 Traffic Management Plan (TMP) Checklist

Reference is made to the RMS (previously RTA) *Procedures for Use in the Preparation of a Traffic Management Plan*, version 2.0 December 2001. The following list addresses the required TMP details.

- A. Description or detailed plan of proposed measures  
*Is the detailed plan of the proposed measures necessary?*  
**Yes**
- B. Identification and assessment of impact of proposed measures  
*Is a detailed assessment required?*  
**No** – The expected generated construction traffic is relatively low and is not expected to measurably increase prevailing delays or adversely impact the surrounding road network performance.
- C. Measures to ameliorate the impact of re-assigned traffic  
*Is an assessment required?*  
**No** – The expected generated construction traffic is relatively low and is not expected to measurably increase prevailing delays or adversely impact the surrounding road network performance. Haulage routes will maximise the use of existing arterial, such as Military Road within close proximity to the site.
- D. Assessment of public transport services affected  
*Is an assessment required?*  
**No** – there are no existing bus stops which will be affected by the proposed works. The required staff levels are also not expected to add loading above what the surrounding public transport network can currently accommodate with its current services and frequency. As such, existing public transport services will not be affected.
- E. Details of provision made for emergency vehicles, heavy vehicles, cyclists and pedestrians  
*Are these details required?*  
**No** – the proposed works will not adversely impact the current on-street conditions for emergency or heavy vehicles. Access around the site for pedestrians will also be maintained at all times.
- F. Assessment of effect on existing and future developments with transport implications in the vicinity of the proposed measures  
*Is an assessment required?*  
**No** – There are no known existing or future development with transport implications in the vicinity of the site.
- G. Assessment of effect of proposed measures on traffic movements in adjoining Council areas  
*Is an assessment required?*  
**No** – The expected generated construction traffic is relatively low and is not expected to measurably increase prevailing delays or adversely impact the surrounding road network performance. There are no external measures proposed that will create traffic movement changes in adjoining council areas.
- H. Public consultation process  
*Is a public consultation process required?*  
**No** - Construction vehicle traffic is minimal such that no impacts to residential amenity will occur during construction. Additionally, no long-term signage or changes to existing on street conditions will occur as part of the construction. Hence, Council can determine this construction proposal accordingly without referral to the public. The builder / site manager

shall provide a minimum 14 days notification to adjoining property owners prior to the implementation of the proposed traffic control measures.

Please contact the undersigned on 9521 7199 should you require further information or assistance.

Yours faithfully,

**McLaren Traffic Engineering**  
**Matthew McCarthy**



**Senior Traffic Engineer**

Bachelor of Civil Engineering

Masters of Engineering Science

Accredited Level 2 Road Safety Auditor

Accredited Traffic Management Plan Designer