

CONSTRUCTION TRAFFIC MANAGEMENT PLAN

Construction of a Residential Development at 104-108 Lethbridge Street in Penrith

Prepared for: Colpani Constructions

N1916074A (Version 1a)

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1. INTRODUCTION

Motion Traffic Engineers was commissioned by Colpani Constructions for the preparation of a construction traffic management plan for the evacuation and construction of a residential development at 104-108 Lethbridge Street in Penrith. The site has frontage to Evan Street and Lethbridge Street. Demolition has already been completed.

Implementation and approval of the Construction Traffic Management Plan requires approval from Penrith City Council.

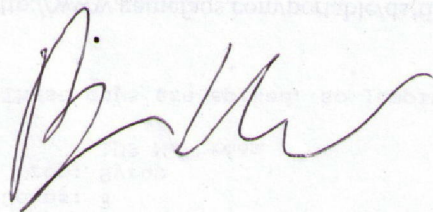
The following activities will be undertaken in the public areas:

- Construction driveway on Evan Street
 - The location of the construction driveway is where the final driveway
- Works zones on the kerbside parking lane on Evan Street for the general construction stage
 - Trucks will be able to enter and leave in a forward manner during the demolition and excavation stage and there will not be a need for a work zone for these two stages

The construction site is located near the Penrith High School. There will be no truck movements travelling through the school zone is operating.

The following traffic control plans have been prepared:

- Pedestrian management plan to ensure that pedestrians are aware of the construction driveway
- Traffic controllers will assist the truck movements to and from the construction works zone as required



Benny Chen
Principal
(NER)

2. PARKING IMPACT OF WORKS

The works zone on Evan Street on the property frontage will reduce the available parking supply by four car spaces respectively.

The loss of the above car space will have a minimal impact since there are vacant car spaces nearby in the residential area on the respective streets. The nearby residents have street frontage on their property should they wish to park on street for themselves and their visitors. Train commuters will be inconvenienced.

All car parking offsite by the construction workers will be in legal parking areas and not on the verges or footpaths.

Where possible, construction workers will park within the on site basement car park or at the work zone.

3. TRAFFIC IMPACT OF WORKS

As discussed previously, traffic controllers will guide truck movements to and from the works zone on Evan Street.

Traffic controllers will temporarily stop Evan Street traffic travelling north bound.

The interruption of east bound traffic on Evan Street through the implementation of a Traffic Control Plan for up to 90 seconds will disrupt three cars on average outside of the commuter peak hours. This disruption, although significant to the drivers involved, is acceptable given the need for construction activity within a construction works zone and is relatively modest with minimal impacts on the nearby road network.

Pedestrian management will be provided at the construction driveway.

The impact on local traffic of construction traffic on the adjacent roads (such as Derby Street and Higgins Street) will be kept to a minimum. The following will be implemented to achieve this:

- The construction trucks travelling to the site will be using major roads that permit trucks and through traffic such as the A9 and A44
- One of the requirements for a traffic controller is to stop traffic when there is a gap in the traffic stream to minimise traffic impacts. Hence the implementation of the traffic control plan will be aimed at minimising traffic disruption
- The timing of the truck arrivals and departures will largely be outside of the commuter peak periods
- During the demolition stage, all trucks will enter the construction site and not occupy the nearby roads with a traffic control plan

- If some of the trucks are not be able to enter or leave the site in a forward manner, then these trucks will use the works zone
- Warning signs will be placed warning pedestrians to walk across the construction driveway with care
- During periods of high traffic volume (such as demolition, excavation and concrete pours etc), pedestrians will be guided walking across the construction site entrance and exit by traffic controllers.
- Truck movements will only occur during permitted construction periods on a weekday only
- The cars of the construction workers will park either on site or on the public parking areas away from the site. Where possible, some will use public transport to travel to and from the site and takes into accounts that the Penrith Train and Bus interchange is a ten-minute walk away
- Vehicle access to neighbouring properties will be retained.

The entire frontage of the property will be fenced off with temporary fencing for security and safety in accordance with WorkSafe requirements.

All statutory safety and warning signs to be erected and maintained at all times.

No machinery or material will be stored on the footpath or verges or on public areas.

Pedestrians will be advised to watch their step and on days of truck movements across the construction site driveway.

The loading/unloading of materials will either occur on site or in the works zone with a traffic control plan.

4. SITE CONDITIONS

The site is provided with adequate controls to ensure the safety and security of the construction site and to constrain environmental impacts. The following presents details of the safety, security and environmental controls provided on site.

Fencing

- A 1.8 metre fencing surrounds the site to prevent unauthorized personnel from accessing the site from entering the site. It provides a single entry point for authorised personal. Fencing also provides security and safety to the site and ensures that potential safety hazards are constrained to the site area.

Erosion and Sediment Control Fence

- An erosion and sediment control fence surrounds the site to prevent or minimise erosion while constraining loose soil to the site. The control fences will also aid in minimalizing the environmental impact on the surrounding flora and fauna.

Wooden Mats

- Wooden mats are placed at the site entrance as additional support for heavy vehicles. The mats serve to spread out the weight of the heavy vehicles whilst also aiding in stability on loose unstable ground conditions.

Cattle Grid

- A cattle grid is placed within the site boundary at the site entrance to shake loose dirt and large materials such as, pebbles and rocks, off a vehicle as it drives over the cattle grid. Vehicles exiting the site are simultaneously washed off to capture air born soil particles discharged from the vehicle as a result of driving over the cattle grid.

Silt Arrestors

- Silt arrestors are placed along the gutter adjacent to the site entrance. These catch loose silts and dirt washed of the cattle grid and out of the site entrance.

Bins

- Bins are located adjacent to the site office which allows for easy access by the vehicles on site.
- The bins are used to centralise and contain site waste material such as pallet wrap and broken/damaged materials to reduce site hazards

Emergency Evacuation point

- The emergency evacuation point is located at the front of the site office.

Site Office

- The site office is located adjacent to the entrance and next to the bins. The location allows for convenient access and view of the construction site. First aid is located in the site office. The site office allows for visitors to engage in a site induction before having to travel to far through the site.

Noise

For noise management and control on the construction site, strict work time and periods are to be followed. By following noise management time frames, the impact on the neighbours and surrounding will be reduced. It is recommended to avoid the use of heavy machinery, large delivery vehicles and loud oscillating/ impacting tools like jack hammers in the initial and end of these periods of times where possible to further reduce the impact.

Construction activity will only occur during nominated hours.

A predicted noise level assessment should be undertaken and weighed against surrounding sites and potential sensitive land uses to assess if a Construction Noise Management plan will be required for the site.

This is done by gathering all the noise impacts associated to the site and comparing it to the acceptable levels for the area. Some points to consider are as such:

- Height of noise
- Type of noise (eg. Airborne / vibration etc)
- All noises associated to the construction during all phases
- Existing noises in the area
- Examining proximity to sensitive areas
- Assessing for particularly offensive noises such as “beepers” and jackhammering
- Etc.

Local neighbours and those most affected should be notified early on in the process of the construction times and expected times of high noise levels. Complaints to the site regarding noise levels and other noise related issues should be compiled and analysed regularly with attempts to rectify issues made.

5. TRUCK AND CAR MOVEMENTS

The details and frequency of the truck movements and the corresponding Traffic Control Plan are as follows in the following Table1 and the appropriate traffic control plan in use and the frequency.

Phase	Duration	Workers Onsite	Largest Vehicle	Loading / Unloading Location	Truck Movements	TCPs Used & Frequency
Excavation	8 weeks	5	12.5 m rigid truck	Onsite	6 / day	TCP 1: Pedestrian Management on Evan Street (all day)
Construction	52 weeks	25	12.5 m rigid truck	Evan Street works zone	4 / day	TCP 1: Pedestrian Management on Evan Street (all day) TCP 2: Evan Street Works Zone Management (four times a day)

Table 1: Summary of Truck Usage by Construction Phase and Traffic Control Plan Used

The number of truck movements on a daily basis is relatively low over a working day.

The inbound truck routes are as follows to the Evan Street construction driveway:

North

- Truck drivers coming from the North will travel on A9, A44, High Street and Evan Street

South

- Drivers from the South will travel on A9, A44, High Street and Evan Street

East

- Drivers from the East will travel on M4, A9, A44, High Street and Evan Street

West

- Truck drivers coming from the West will travel on M4, A9, A44, High Street and Evan Street

The outbound movement is to travel on Evan Street towards High Street, turn right in High Street, and then turn left or right into A44 depending upon destination at the signalised intersection of Great Western Highway with High Street.

6. PARKING AND QUEUING AREAS

All trucks will be queued within the site or at the works zone. To minimise queuing on Evan Street, and the nearby roads, a schedule of construction vehicle deliveries will be prepared by the main contractor. This will minimise queuing into and out of the site and to ensure that once the construction vehicles arrive, the traffic controllers will be ready to manage the construction vehicles and the through traffic on Evan Street.

The expected frequency of construction vehicles are presented in Table 1. Most arrivals are pre-planned to within a time frame of 20 minutes.

Trucks are not to park in nearby streets while waiting to travel to the construction site.

7. TRAFFIC MANAGEMENT PLAN CHECKLIST

This section responds to the checklist in the document titled “Procedures for Use In the Preparation of a Traffic Management Plan (TMP)” prepared by the NSW RTA (now RMS) with the document dated 2001. The checklist is in Section C of the document.

	Traffic Management Plan Issues	Response
A	Description or detailed plan of proposed measures	Yes - see report
B	Identification and assessment of impacts of proposed measures	Yes -see report
C	Measures to ameliorate the impact of re-assigned traffic	Yes- alternative vehicle routes are available. See report
D	Assessment of public transport services affected	No - public transport not affected
E	Details of provisions made for emergency vehicles, heavy vehicles, cyclists and pedestrians	No change. Emergency vehicles and trucks have alternative access
F	Assessment of effect on existing and future developments with transport implications in the vicinity of the proposed measures	Construction works are short term
G	Assessment of effect on traffic movements in adjoining areas	No. The impacts are local
H	Public Consultation Process	Notices will be delivered by a letter drop

Table 2: Traffic Management Checklist

8. TRAFFIC CONTROL PLANS

This section discusses the preparation of traffic control plan managing both pedestrians and trucks entering and leaving the construction site and the occupancy of the kerbside lane.

The preparation of the Traffic Control Plans have been in accordance with Australian Standards AS1742.3 and the RTA Traffic Control at Work Sites (now the RMS).

Benny Chen is licensed and registered by the NSW Roads and Maritime Services to design and inspect traffic control plans (Certificate No. 2893016010).

Table 1 presents the use of Traffic Control Plans according to each construction phase and the expected frequency of use per day.

The Traffic Control Plan is presented in a clear manner to allow for the plan to be implemented by the works supervisor. The placement of the signs is from a key identifier. The works supervisor will need to be RMS accredited. The Traffic Control Plans are presented in Appendix A.

Where there are two controllers require, radios will be used to communicate the implementation of the traffic control plan between controllers.

All barriers used in traffic control will need to be compliant with Australian Standards.

APPENDIX A – TRAFFIC CONTROL PLANS