



Mixed Use Development 108 Station Street, Wentworthville Transport Impact Assessment for Planning Proposal

Client //	Beaini Projects Pty Ltd
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108 Station Street, Wentworthville

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Issue: A 01/05/15

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GTA Consultants Office: NSW

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
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1. Introduction

1.1 Background

It is understood that Beaini Projects Pty Ltd is seeking to lodge a Planning Proposal for a mixed use development at 108 Station Street, Wentworthville.

It is intended that the proposal will seek to increase the floor space ratio and increase the height of building.

GTA Consultants was commissioned by Beaini Projects to provide traffic advice in relation to the above site.

1.2 Purpose of this Report

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

- i existing traffic and parking conditions surrounding the site
- ii suitability of the proposed parking in terms of supply (quantum)
- iii the traffic generating characteristics of the proposed development
- iv suitability of the proposed access arrangements for the site
- v the transport impact of the development proposal on the surrounding road network.

1.3 References

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

- o an inspection of the site and its surrounds
- o Holroyd Local Environmental Plan (LEP) 2013
- o Holroyd Development Control Plan (DCP) 2013
- o other documents and data as referenced in this report.

2. Existing Conditions

2.1 Site Location

The subject site is located at 108 Station Street, Wentworthville, which is within Wentworthville Town Centre. The site has frontage of about 38m to Station Street. The site currently has a land use classification as B2, Local Centre and is occupied by local shops.

The surrounding properties predominantly include retail and residential uses.

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

Figure 2.1: Subject Site and Its Environs



Basemap source: Nearmap

2.2 Local Context

The suburb has two shopping precincts. The oldest precinct is located close to Wentworthville train station. The area is mainly zoned as residential with the local centre and public recreation areas. The main commercial activity is held by Wentworthville Mall, with local shops, restaurants and a Supa IGA.

The other precinct is located on the southeast of the town centre, mainly dominated by Woolworths, providing a new retail precinct for the area.

2.3 Road Network

Station Street

Station Street is generally a two-lane single carriageway and is aligned in a north-south direction. It serves as a collector type road, forming a signalised intersection with Dunmore Street to the north of the site.

1P parking is permitted along the eastern side of the street, including accessible parking bays on north and south of the McKern Street. Unrestricted parking is permitted along the western side of Station Street, south of McKern Street.

Dunmore Street

Dunmore Street is generally a four-lane single carriageway and is aligned in an east-west direction. Dunmore Street is a collector type road. It forms a signalised intersection with Station Street and the Cumberland Highway further to the west. It combines with Lane Street to the east. It accommodates bus stops on both sides immediately east and west of the Station Street intersection, along with 1P parking in the majority of locations.

McKern Street

McKern Street is a two-lane single carriageway and is aligned in an east-west direction. It serves as a local street forming a sign controlled intersections with Station Street and Garfield Street.

1P parking is permitted on both side of the road, near the Station Street. Unrestricted parking is permitted on both sides of the road, near the Garfield Street.

2.4 Public Transport

2.4.1 Rail Services

Wentworthville Station is located approximately 340m north of the site.

Wentworthville Railway Station is serviced by the T1 Western Line and T5 Cumberland Line. The journey between Wentworthville Railway Station and Central Station takes approximately 32-39 minutes during peak periods.

Train frequencies during the weekday AM, PM and Saturday peak hours are shown in Table 2.1.

Table 2.1: Train Service Frequencies

Direction	AM Peak (8:00am-9:00am)	PM Peak (5:00pm-6:00pm)	Saturday Peak (12:00pm-1:00pm)
Eastbound (Central)	15 minutes	15 minutes	30 minutes
Westbound (Richmond/Emu Plains)	15 minutes	15 minutes	30 minutes

Table 2.1 indicates that a good level of train services to and from the City is provided at the Wentworthville train station.

2.4.2 Bus Services

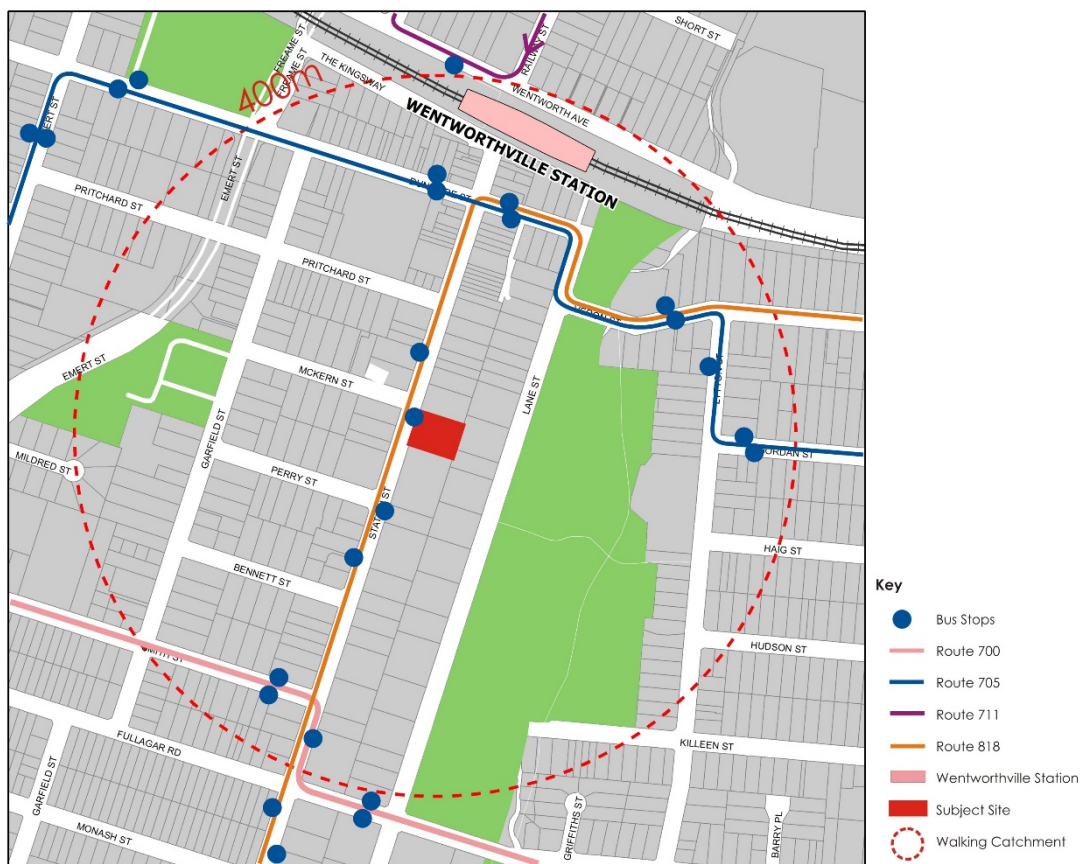
Bus stops have been provided within a typical walking distance from the site. The buses are operated by Hillsbus and Transit Systems, providing services linking Blacktown with Parramatta (Route 700, 705, 711), and Merrylands with Westmead (Route 818).

The bus stop locations and the routes in the vicinity of Wentworthville Railway Station are presented in Figure 2.2, with bus frequencies detailed in Table 2.2.

Table 2.2: Bus Service Frequencies

Route	Frequency
700 (Hillsbus)	33 services per day
705 (Hillsbus)	20 services per day
711 (Hillsbus)	35 services per day
818 (Transit Systems)	11 services per day
Total	99 services per day

Figure 2.2: Bus Stop Locations and Bus Routes



The site is currently serviced by a good level of public bus services.

2.5 Pedestrian & Cycle Infrastructure

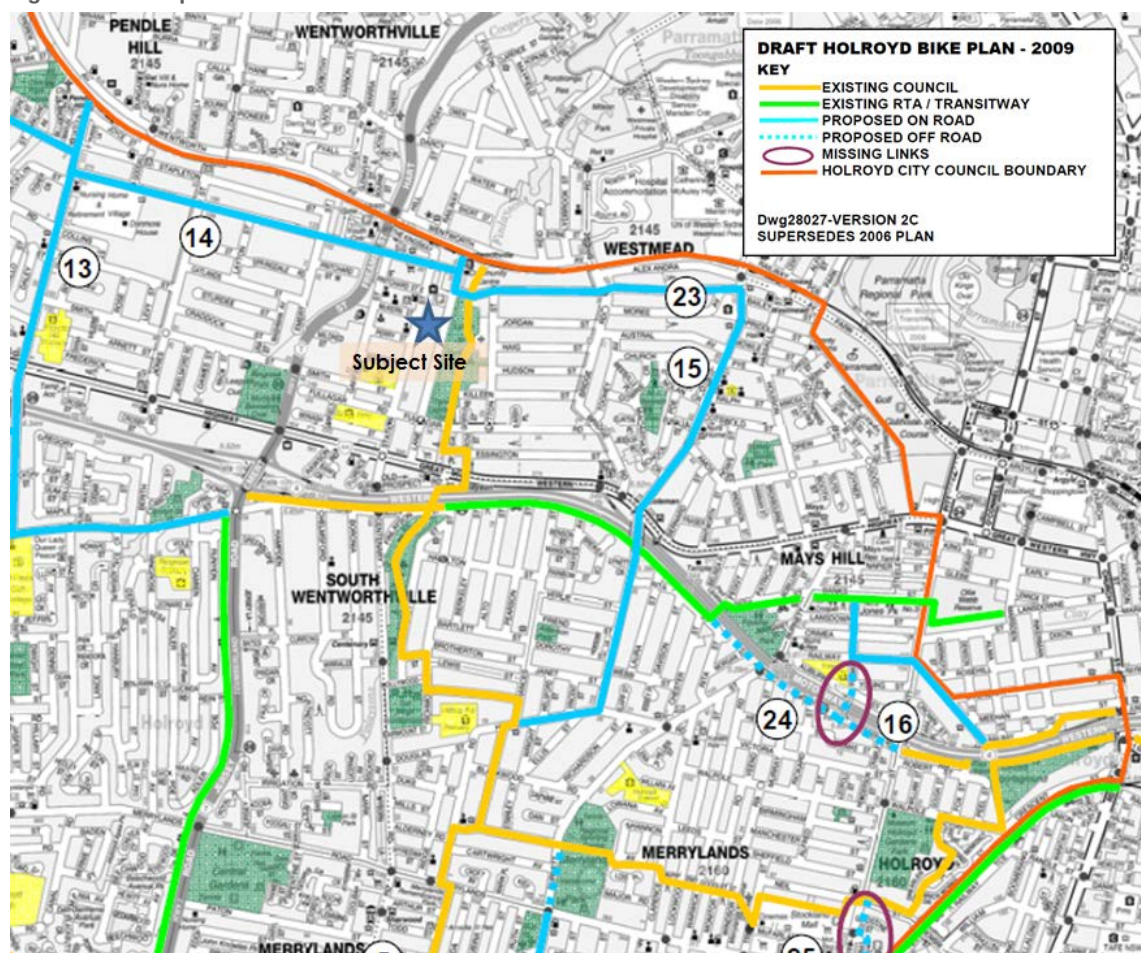
Formal pedestrian footpaths are located along both sides of the roads on Station, Dunmore and McKern Streets in vicinity of the site.

Safe crossing points in vicinity of the site include the following pedestrian crossings:

- a pedestrian refuge island provided at Station Street, immediately north of McKern Street intersection
- a pedestrian refuge island provided at Pritchard Street, immediately west of Station Street intersection
- signalised pedestrian crossings at all four approaches of the Dunmore Street-Station Street intersection.

Figure 2.3 shows the cycle network map for the Wentworthville area. It can be seen that the off-road bicycle route currently exists along the Finlayson Creek corridor, which is located east of the site. In addition, according to the Draft Holroyd Bike Plan 2009, on road bicycle route is also proposed along Dunmore Street.

Figure 2.3: Map of Planned Bike Paths



Sourced from Holroyd City Council (<http://www.holroyd.nsw.gov.au/qa-roads-transport/cycleways/>)

2.6 Wentworthville Centre Revitalisation

The Wentworthville Centre Revitalisation Project is a Holroyd City Council initiative that aims to develop and implement a new planning strategy for the Wentworthville Town Centre. The timeline for this project will run over 18 months commencing with the community engagement process and concluding with required strategic and statutory planning amendments that will facilitate the desired revitalisation of the Wentworthville Town Centre.

Holroyd Council is currently undertaking expert studies including urban design, economic feasibility and traffic and transport. The results of these studies, together with the Community Participation Report, will be used to form the Planning and Place Making Strategy for Wentworthville.

3. Planning Proposal

The planning proposal will seek to increase the floor space ratio and increase the height of building.

The proposal will involve demolition of the existing buildings and construction of a new mixed use building to accommodate about 100-150 residential units and approximately 490m² of retail area. The proposed retail area will remain consistent with the size of existing retail area.

The vehicular access to and from the basement car park would be provided via the private access from Station Street. The location of the vehicular access will remain at its current location as shown in Figure 3.1.

Figure 3.1: Location of Proposed Vehicular Access



The proposed basement car park would accommodate car parking spaces in accordance with Council's requirements.

4. Car Parking

Whilst the exact mix of the residential units has not been developed at the Planning Proposal stage, based on our experience elsewhere, the following residential mix has been assumed:

- one-bedroom units – 100 to 168 units (45 percent)
- two-bedroom units – 40 to 60 units (40 percent)
- three-bedroom units – 15 to 22 units (15 percent).

The car parking requirements for different development types are set out in Holroyd City Council's *Holroyd Development Control Plan (DCP) 2013*. The following minimum and maximum parking requirements are presented in this DCP:

- Residential dwellings in B2 zone:
 - Studio/1 bedroom – 0.8 (min.) to 1.0 (max.) spaces/ dwelling
 - 2 bedroom – 1.0 (min.) to 1.5 (max.) spaces/ dwelling
 - 3 bedroom – 1.2 (min.) to 2 (max.) spaces/ dwelling
 - Visitor parking – 0.2 (min.) to 0.5 (max.) spaces/ dwelling
- Commercial (including retail premises in B2 zone in Wentworthville):
 - 1 space/20m² (min.) to 1 space/15m² (max.).

A review of the car parking rates and the proposed mix results in a parking requirement for the proposed development as summarised in Table 4.1.

Table 4.1: Car Parking Requirements

Use	Size	Parking Rates		Parking Requirements	
		Min.	Max.	Min.	Max.
Residential					
1 bedroom unit	100-168	0.8 spaces/unit	1 spaces/unit	80-134	100-168
2 bedroom unit	40-60	1 spaces/unit	1.5 spaces/unit	40-60	60-90
3 bedroom unit	15-22	1.2 spaces/unit	2 spaces/unit	18-26	30-44
Visitor space		0.2 spaces/unit	0.5 spaces/unit	20-30	50-75
Retail	490m²	1 space/20m²	1 space/15m²	25	32
Total				183-275 spaces	272-409 spaces

Based on the above, the proposed development would be required to provide a minimum of 183 to 275 car parking spaces and a maximum of 272 to 409 car parking spaces.

The development proposes to provide car parking spaces in accordance with the Council's car parking requirements. Car parking assessment would be reviewed in the DA stage when the exact residential unit number and mix is determined.

5. Traffic Impact Assessment

Traffic generation estimates for the proposed residential development have been sourced from the *Guide to Traffic Generating Developments Updated traffic surveys* (RMS, 2013). The following peak hour traffic generation rates are presented in the RMS Guide:

- High density residential flat building:
 - AM peak (1 hour) vehicle trips per unit – 0.19 trips per unit
 - PM peak (1 hour) vehicle trips per unit – 0.15 trips per unit.

The proposed retail area will remain consistent with the size of existing retail area. Hence the net increase in traffic would be generated by the proposed residential component only.

Estimates of net increase in peak hour traffic volumes resulting from the proposal are set out in Table 5.1.

Table 5.1: Net Increase in Traffic Generation

	Size	Traffic Generation Rate		Vehicle Movements	
		AM Peak	PM Peak	AM Peak	PM Peak
Proposed Use					
Residential	100-150 units	0.19 veh trips /unit	0.15 veh trips /unit	19-29	15-23
Net Increase				+19 to 29	+15 to 23

The net increase in traffic generation of the proposal as calculated in Table 5.1 indicates that the proposed development would generate about 19 to 29 additional vehicle trips during the AM peak hour and 15 to 23 additional vehicle trips during the PM peak hour compared to the existing use. This is equivalent to only one additional vehicle every two to four minutes.

As the net increase in additional vehicle trips is relatively minor, it is expected that the local traffic conditions in vicinity of the site would not have any significant impact from this proposal and no mitigation measures are proposed.

The detailed design process would consider the layout of the private road and any potential interaction with McKern Street, noting any street improvements that may be proposed as part of the Wentworthville Centre Revitalisation Project.

6. Conclusion

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

- i The proposal will involve demolition of the existing buildings and construction of a new mixed use building to accommodate about 100-150 residential units and approximately 490m² of retail area. The proposed retail area will remain consistent with the size of existing retail area.
- ii The vehicular access to and from the basement car park would be provided via the private access from Station Street. The location of the vehicular access will remain at its current location.
- iii The proposed development would need to generally comply with the DCP parking rates specified in Section 4, however this would need to be investigated in more detail during any subsequent development application.
- iv The net increase in traffic generation of the proposal would be about 19 to 29 additional vehicle trips during the AM peak hour and 15 to 23 additional vehicle trips during the PM peak hour compared to the existing use. This is equivalent to only one additional vehicle every two to four minutes.
- v As the net increase in additional vehicle trips is relatively minor, it is expected that the local traffic conditions in vicinity of the site would have any notable impact from this proposal and no mitigation measures are proposed.
- vi The detailed design process would consider the layout of the private road and any potential interaction with McKern Street, noting any street improvements that may be proposed as part of the Wentworthville Centre Revitalisation Project.

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