PROPOSED RESIDENTIAL DEVELOPMENT
14 – 26 TeloPea Avenue, Homebush West
Assessment of Traffic and Parking Implications

February 2017
(Rev E)

Reference 16252
# Table of Contents

1. **Introduction** .................................................................................................................. 1

2. **Proposed Development Scheme** .................................................................................. 2
   2.1 Site, Context and Former Use ................................................................................. 2
   2.1 Proposed Development ......................................................................................... 2

3. **Road Network and Traffic Controls** ............................................................................. 4
   3.1 Road Network ......................................................................................................... 4
   3.2 Traffic Controls ...................................................................................................... 4
   3.3 Traffic Conditions .................................................................................................. 5

4. **Parking** .......................................................................................................................... 6

5. **Traffic** .......................................................................................................................... 7

6. **Access, Internal Circulation and Servicing** ................................................................. 8

7. **Conclusion** .................................................................................................................... 9

**Appendix A**  Development Plans  
**Appendix B**  Turning Path Assessment

# List of Illustrations

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIGURE 1</td>
<td>LOCATION</td>
</tr>
<tr>
<td>FIGURE 2</td>
<td>SITE</td>
</tr>
<tr>
<td>FIGURE 3</td>
<td>ROAD NETWORK</td>
</tr>
<tr>
<td>FIGURE 4</td>
<td>TRAFFIC CONTROLS</td>
</tr>
</tbody>
</table>
1. INTRODUCTION

This report has been prepared to accompany a Development Application to Strathfield Council for a proposed townhouse development on the site at 14-26 Telopea Avenue, Homebush West (Figure 1).

The development site, which is located in close proximity to both Homebush Railway Station and bus services along Parramatta Road, also has convenient access to the arterial road system. The proposed development typifies the ongoing process of Inner City urban consolidation where outmoded industrial and commercial uses are being replaced by medium density residential and mixed use developments.

The site has had an industrial use for many years and it is proposed to demolish the existing building and construct a new residential townhouse complex with 28 townhouses and basement parking.

The purpose of this report is to:

* describe the site, its context and the development proposal
* describe the road network serving the site and traffic conditions on that network
* assess the adequacy of the proposed parking provision
* assess the potential traffic implications of the development
* assess the proposed access, internal circulation and servicing arrangements
2. **Proposed Development Scheme**

2.1 **Site, Context and Former Use**

The development site (Figure 2) is a consolidation of lot S110-116 in DP11427 which occupies an irregular shaped area of some 4,017m² with frontage to Telopea Avenue.

The site levels fall from south to north and the adjoining uses comprise residential dwellings to the north and east while a drainage reserve runs along the eastern boundary. The other uses in the surrounding area comprise:

* the new townhouse buildings on the western side of Telopea Avenue
* the mixed commercial, industrial and retail uses extending along Parramatta Road
* the business park to the south and Paddys Market to the east

The site, which has been occupied by a warehouse for many years, comprises some 1,900m² of floorspace and some 40 parking spaces with a number of access driveways on the Telopea Avenue frontage.

2.1 **Proposed Development**

The existing buildings will be demolished and the site excavated to provide for basement carparking and level building platforms.

The new building complex will be constructed along the site and will comprise terrace type townhouses with front and rear courtyards as follows:

- 5 x two-bedroom
- 23 x three-bedroom

**Total: 28 townhouses**
A total of 61 parking spaces are to be provided in basement level with a combined ingress/egress driveway located on the Telopea Avenue frontage at the eastern site boundary.

Details of the proposed development are provided on the plans prepared by Squillance Architects which accompany the Development Application and are reproduced in part in Appendix A.
3. **ROAD NETWORK AND TRAFFIC CONTROLS**

### 3.1 ROAD NETWORK

The road network serving the site (Figure 3) comprises:

* **M4 Motorway** – a State Road and major arterial route linking between the City and Penrith
* **Parramatta Road** – a State Highway and major arterial route
* **Homebush Bay Drive / Centenary Drive** – State Road
* **Concord Road-Leicester Avenue-Redmore Road-The Boulevarde** – a State Road and sub-arterial route
* **Homebush Road-Broughton Road** – Regional Roads and collector road routes
* Various major and minor collector road routes

### 3.2 TRAFFIC CONTROLS

The existing traffic controls in the vicinity of the site (Figure 4) comprise:

* the traffic signals at intersections along Parramatta Road including Birnie Avenue, Homebush Business Park access and the Centenary Drive ON / OFF ramp
* the right turn bay for the turn from Parramatta Road into Telopea Avenue
* the various right-turn movement restrictions including the restriction on the turn from Parramatta Road to Courallie Avenue
* the 50 kmph speed restriction on the local street system and 60 kmph on Parramatta Road
the one-way restrictions along Marlborough Road and Hammersmith Road which act as service roads running adjacent to Centenary Drive

the CLEARWAY and NO STOPPING restrictions along Parramatta Road

the 2P SPECIAL EVENT parking restrictions on the local road system

3.3 Traffic Conditions

An indication of the traffic conditions on the roads in the vicinity is provided by data published by Roads and Maritime Services and traffic surveys undertaken for this study. The RMS data which is expressed in terms of Annual Average Daily Traffic (AADT) is summarised in the following:

<table>
<thead>
<tr>
<th></th>
<th>AADT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parramatta Road</td>
<td>40,139</td>
</tr>
</tbody>
</table>

Traffic surveys undertaken in the area during the morning and afternoon peak traffic periods reveal the following:

<table>
<thead>
<tr>
<th></th>
<th>AM</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parramatta Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound</td>
<td>2,200</td>
<td>1,850</td>
</tr>
<tr>
<td>Westbound</td>
<td>1,800</td>
<td>2,150</td>
</tr>
<tr>
<td>Telopea Avenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>Southbound</td>
<td>80</td>
<td>60</td>
</tr>
</tbody>
</table>

The prevailing peak traffic conditions at the intersections in the vicinity of the site are generally satisfactory and this situation is not expected to change in the foreseeable future. Traffic flow along Parramatta Road is largely controlled by conditions at the busy Centenary Drive and Birnie Road intersections

---

1 Traffic Volumes and Supplementary Data
   Roads and Maritime Services
4. PARKING

Strathfield Council’s Parking Control Code (DCP Part C) specifies an on-site parking provision in relation to the proposed development of:

<table>
<thead>
<tr>
<th></th>
<th>Specified Provision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two-bedroom apartment</td>
<td>1.5 space per apartment</td>
</tr>
<tr>
<td>Three-bedroom apartment</td>
<td>2 spaces per apartment</td>
</tr>
<tr>
<td>Visitors</td>
<td>1 space per 5 apartments</td>
</tr>
<tr>
<td></td>
<td>(for more than 20 apartments)</td>
</tr>
</tbody>
</table>

Application of this criteria to the proposed development indicates the following provision:

<table>
<thead>
<tr>
<th></th>
<th>Provision</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 x Two-Bedroom</td>
<td>7.5 spaces</td>
</tr>
<tr>
<td>23 x Three-Bedroom</td>
<td>46 spaces</td>
</tr>
<tr>
<td>Visitors</td>
<td>6 spaces</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>59.5 spaces</strong></td>
</tr>
</tbody>
</table>

It is proposed to provide a total of 61 on-site parking spaces including 6 visitor, 4 accessible spaces and 1 wash bay. This proposed provision presents quite an appropriate and acceptable arrangement which would avoid any on-street parking overflow.
5. **Traffic**

The existing use of the site (1,900m² warehouse) would generate some 10 vtp/h in the peak periods based on the criteria provided in the RMS Development Guidelines\(^2\) for “warehouse” use of 0.5 vtp/h per 100m². The RMS Guidelines specify a generation rate for medium density residential development of 0.4 to 0.65 vtp/h per dwelling in the morning and afternoon.

The projected generation of the proposed development is as follows:

28 townhouses (2 & 3 bedroom)  14 – 28 vtp/h

Thus the proposed development will have a traffic generation potential which is similar to that of the current use of the site. The projected distribution of the access movements during peak periods is as follows:

<table>
<thead>
<tr>
<th></th>
<th>AM</th>
<th></th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN</td>
<td>4</td>
<td>OUT</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>IN</td>
<td>3</td>
</tr>
</tbody>
</table>

Movements of this small magnitude will not experience any difficulty and will not result in any adverse capacity of safety implications given that the generated traffic movements will distribute in a number of directions and take advantage of traffic signal controlled access at the adjacent arterial routes.

\(^2\) Traffic Volumes and Supplementary Data
Roads and Maritime Services
6. **Access, Internal Circulation and Servicing**

**Access**

Vehicle access for the basement carpark will be provided by a 5.8m wide combined ingress/egress driveway on Telopea Avenue at the eastern site boundary. This proposed access will:

* accord with the design requirements of AS2890.1
* have suitable sight distance available on the straight and level section of Telopea Avenue
* be suitably located well away from the Parramatta Road intersection
* have a suitable sight line curve at the 90° ramp connection coming up from the basement

**Internal Circulation**

A flexible two-way circulation arrangement will be provided in the basement level with the visitor spaces distributed along the carpark. These arrangements and the design of the access ramps, aisles and bays etc. will be in accordance with AS2890.1 and 6 and will be more than adequate for the operational requirements of the proposed development.

**Servicing**

Garbage will be removed from the street by Council’s collection vehicles while service personnel and couriers etc. will be able to utilise the visitor parking spaces. Occasional large delivery/service vehicles will be reliant on on-street parking in the area as is normal for relatively small medium density residential development of this nature.
7. CONCLUSION

The proposed residential development will replace the current industrial use on the site in keeping with the zoning for the area. Assessment of the proposed townhouse development has confirmed that:

- there will not be any unsatisfactory traffic implications
- the proposed parking provision will be adequate and appropriate
- the proposed vehicle access, internal circulation and servicing arrangements will be suitable and appropriate
APPENDIX A

DEVELOPMENT PLANS
FLOOR PLAN GROUND LEVEL

1:100 @ A1
1:200 @ A3

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ISSUE
PROJECT

CLIENT
STATUS

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TELOPEA AVENUE
14-26 TELOPEA AVENUE, HOMEBUSH WEST
FLOOR PLAN BASEMENT LEVEL
(PRELIMINARY ISSUE 1)

DRANING
DRAWN BY:
CHECKED BY:
DRAWING NO.:
ISSUE:
PROJECT:
SCALE:
ISSUE DATE:
PURPOSE OF ISSUE:

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PRELIMINARY

DA-101

1

23.12.2016 PRELIMINARY CONSULTANT ISSUE

1:200 @ A1

1:200 @ A3

1:100 @ A1

1:40 FFL 6.600

1:200 @ A1

1:100 FFL 5.900

1:8 RAMP

1:4 RAMP
APPENDIX B

TURNING PATH ASSESSMENT
LEGEND
This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2000. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.

SWEPT PATH ANALYSIS OF A 99th AND AN 85th PERCENTILE VEHICLE PASSING ON THE RAMP
LEGEND
This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2000. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.

SWEPT PATH ANALYSIS OF AN 85th PERCENTILE VEHICLE ENTERING THE SITE
LEGEND
This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2000. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.

SWEPT PATH ANALYSIS OF AN 85th PERCENTILE VEHICLE EXITING THE SITE
LEGEND
This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2000. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.

SWEPT PATH ANALYSIS OF AN 85th PERCENTILE VEHICLE ENTERING THE SITE
LEGEND
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SWEPT PATH ANALYSIS OF AN 85th PERCENTILE VEHICLE TURNING