



Wahroonga Estate Proposed Concept Plan MOD5 S75W Application

Traffic and Parking Assessment

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1.0 Introduction

The Wahroonga Estate occupies a large 64ha landholding bound by The Comenarra Parkway, Fox Valley Road and Coups Creek at Fox Valley.

A Concept Plan (MP07-0166) to guide development of the Estate was approved in 2010 and development has progressed with various elements obtaining development and some being fully or partly implemented including alterations/additions to the Hospital, construction of a Medical Centre complex, construction of a relocated School, construction of an Education Centre and upgrade of the access road system.

The Concept Plan also provides for the development of residential dwellings in various areas within the Estate. However, emerging issues of new bushfire and biodiversity requirements as well as the need to provide increased open space around the new School have acted to constrain the provision of a total of 112 dwellings in some of these areas.

The S75W Modification Application proposes an amendment to the Concept Plan to relocate these dwellings to the corner of The Comenarra Parkway and Fox Valley Road where the Concept Plan identified a future mixed use building. The Modification Application does not propose to increase the Concept Plan's approved maximum of 500 dwellings within the Estate.

The purpose of this report is to document an assessment of the potential traffic and parking implications of the proposed Concept Plan Modification.

2.0 Approved Concept Plan

The Concept Plan approved in 2010, which is reproduced overleaf, guides the development of the following elements:

- Alterations and additions to the Hospital in a number of stages in accordance with MP10-070 (partially completed)
- Construction of a new School in accordance with SSDA5535 (partially completed)
- Construction of a Medical Centre Complex in accordance with DA0053/13 (completed)
- Construction of an Education Centre in accordance with MP10-070 (completed)
- Construction of 60 apartments in a student/nurse accommodation complex in accordance with DA0435-12 (commenced)
- Construction of 500 residential dwellings in various areas including 458 apartments (not commenced apart from the 60 in the student/nurse accommodation complex)
- Construction of a mixed use building on the corner of The Comenarra Parkway and Fox Valley Road comprising 45 of the apartment dwellings and 2,000 m² of commercial floor space (not commenced)
- Various road upgrades required by Condition B7 of MP067-D166 comprising:
 - upgrade of the Fox Valley Road/Hospital Access intersection (completed)
 - upgrade of The Comenarra Parkway and Fox Valley Road intersection (completed)
 - widening of Comenarra Parkway (completed)
 - widening of Fox Valley Road (partially completed)
 - new intersection on Fox Valley Road at the school (not commenced)
 - upgrade of The Comenarra Parkway/Browns Road intersection (not commenced)



FIGURE 19[A] - THE CONCEPT PLAN REVISED
[Refer page 41 of Final Preferred Project Report & Concept Plan January 2010]

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Precincts C & D Concept Plan Amendments
MP 07-0166

PROJECT NORTH



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- A number of other road upgrades works identified in the Concept Plan approval have since been “put aside” as follows:

- * Pacific Highway and Fox Valley Road

- An upgrade of this intersection was undertaken separately as part of the NorthConnex project. As a result, the upgrade requirement was transferred to the intersection of The Comenarra Parkway and Kissing Point Road intersection. However, following assessment of that potential upgrade a contribution (\$670,000) was paid and this was formalised by modifying the Conditions of the Concept Plan approval.

- * Fox Valley Road intersections with Lucinda Avenue and Ada Avenue

- These works are tied to Stage 3 of the Hospital upgrade and the Concept Plan approval now requires completion of new TIA's for the 2 intersections 3 months after starting construction of the Hospital Stage 3 and any recommendations implemented before Stage 3 is occupied. It is understood however, that it is now unlikely that the Stage 3 works at the Hospital will proceed.

The matter of these upgrades is not part of the S75W Modification Application as the Concept Plan Approval in this regard has already been modified.

3.0 Proposed Modified Concept Plan

The Concept Plan approval included the provision a maximum of 500 residential dwellings in the Estate's 5 precincts however, delivery of 112 of those dwellings in 3 of precincts is now constrained by the emerging bushfire, biodiversity and provision of open space issues. The proposed modification seeks to reallocate those 112 dwellings to the proposed mixed use building in Precinct C. The proposed modified dwelling allocation is as follows:

DWELLING YIELD		
Precinct	Approved (Max)	Modified (Max)
A	81	16
B	209	171
C	108	220
D	96	87
E	6	6
Total	500	500

The Precinct C building is on the corner of The Comenarra Parkway and Fox Valley Road where the Concept Plan identified a mixed use building with 45 apartments and 2000 m² of a ground level commercial floor space. It is proposed to increase the parking provision in this building appropriate to the increased number of apartments however, there will be no change to the approved ground level commercial floorspace or the vehicle access and servicing arrangements.

Details of the proposed modified Concept Plan are provided overleaf and a future Development Application for this mixed use building will address the requirements of Condition B9 of the Concept Plan approval relating to car parking and servicing arrangements.

Approved and constructed Concept Plan buildings

Approved Concept Plan buildings to be constructed

Existing buildings

Concept Plan 65
Delivered 0
Balance -65
Precinct A
Mount Pleasant

Concept Plan 200
Approved for construction 162
Balance -38

Precinct B
Church Central

Precinct D
Fox Valley
Concept Plan 88
DA being prepared 79
Balance -9

Precinct C
Hospital Central

Concept Plan 105
Under Construction 60
Future 157

Balance + 112 (relocated from other Precincts)

Precinct E
Residential East

4.0 Traffic

It is inevitable that the residents of the proposed apartments will comprise a significant element of:

- workers in the various elements in the Estate (i.e. Hospital, School, Medical Centre complex and the Adventist Administration)
- residents who wish to live close to the Adventist School
- residents who wish to live close to the Adventist Church facilities.
- students attending the Education Centre (rented apartments)

Accordingly, the peak traffic generation of the apartments will be constrained in terms of external commuter car movements and the proposed commercial/retail floorspace will essentially only provide for the “convenience” needs of the residents and workers in the precinct (i.e. it will not be a retail “destination”).

The assessed peak traffic generation of the apartments reflecting these circumstances (and despite what might have been assessed in previous studies) is 0.20 vtp/h per apartment. This is also implicated by the constrained parking provision criteria of 0.5 space per 1 bed and 1.0 space for 2&3 bed apartments. Thus, the proposed additional 112 apartments in the Precinct C Building are assessed to have a peak traffic generation as follows:

AM		PM	
IN	OUT	IN	OUT
6	17	17	6

The vehicle access provisions will remain as previously proposed and the assessed distribution of the additional movements are as follows:

Access at Fox Valley Road

AM	PM
----	----

Main Hospital Access

AM	PM
----	----

LT IN	3	5	RT IN	3	12
LT OUT	12	3	RT OUT	5	3

Thus, the additional peak movements max (12 vtpd by direction) represents only 1 vt per 5 minutes and the impact of this will be entirely imperceptible. This is particularly the case as the upgrades undertaken at the intersections of The Comenarra Parkway/Fox Valley Road and Fox Valley Road/Hospital Access have resulted in these intersections operating with very satisfactory levels of service.

The dwellings in Precincts B and D will be accessed through the proposed new intersection on Fox Valley Road at the School and the reduced demands at this intersection as a result of the proposed modification will be beneficial to the future operation of that intersection.

Apart from these being very minor and largely imperceptible numbers:

- a significant proportion of Estate workers who currently reside externally and drive to work will relocate to the new dwellings thus, reducing the external staff traffic generation of the employment elements
- they are simply a minor redistribution of the movements which would have been generated had the dwellings been distributed as per the Concept Plan
- there will be a reduction in the movements generated through School access road intersection
- in reality there will be somewhat lower volumes generated by the dwellings than that assessed in the TIA that accompanied the Concept Plan Application (i.e. peak 0.67 vtpd per dwelling)
- there will be no change to the movements at the critical intersection of The Comenarra Parkway and Fox Valley Road
- the left turn IN/OUT only restriction on the access road connecting to Fox Valley Road at Precinct C will remain in place

5.0 Parking

The site is located within the Hospital Precinct and not within the Central Church or Fox Valley Road East Precincts. As such, the parking criteria contained in the 2010 Final Preferred Project Report apply as follows:

One Bed	0.5 space per apt
Two Bed	1.0 space per apt
Three Bed	1.0 space per apt
Visitor	1.0 space per apt
Car Share	0.166 space per apt

The basement parking of the subject building can readily be enlarged to provide for the parking associated with the proposed additional 112 apartments in accordance with this criteria. The “upshot” will be that there will be an overall reduction in resident parking provision to that which would have been without the proposed relocation of the apartments (because the higher parking criteria for the other precincts would have applied).

As required by Condition B9 the future Development Application will be accompanied by Architectural plans and a detailed Traffic and Parking Assessment.

6.0 Access, Internal Circulation and Servicing

Access

The vehicle access provisions (i.e. at the site and via the external road system) will remain unchanged from that under the approved Concept Plan. The design of the access driveways will comply with the design requirements of AS2890.1 & 2 and there will be appropriate sight distances available at the driveway locations.

Internal Circulation

The design of the internal circulation car park arrangements will comply with the requirements of AS2890.1 and 6.

Servicing

The arrangements for delivery and service vehicles will remain unchanged to that intended for the approved Concept Plan.

7.0 Conclusion

The proposed modification to the Approved Concept Plan for the Wahroonga Estate will not result in any increase in development yield (specifically dwellings and commercial floorspace). Assessment of the proposal has concluded that:

- there will be no adverse traffic implications
- the required parking provision can be provided
- the vehicle access provisions will remain unchanged

Appendix A

Architectural Plans

Appendix B

Turning Path Assessment