

**The Glades, Moonee Beach
LOTS 1 & 2 DP 725785.
SECTION 75W MODIFICATION**

Traffic Impact Assessment

January 2018

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Appendix A The Glades Estate – Overall Site Plan

1 Introduction

1.1 Scope

This report has been prepared following a request from Resource Design & Management Pty Ltd for a traffic impact assessment on a proposed section 75W modification to The Glades residential development, Moonee Beach. The proposed modification would see an additional 31 allotments to the 524 approved residential Lots.

This report will assess the likely traffic impacts of the additional lots on the internal and external road network and make recommendations in relation to any modifications to traffic and transport infrastructure required for the development.

2 Existing Conditions

2.1 Location

The proposed development is located on Lots 1 & 2 DP 725785. Moonee Beach.

2.2 Road Network

Primary access to the development is via the Pacific Highway/Moonee Beach Road interchange which also provides access to Solitary Islands Way.

Solitary Islands Way and Moonee Beach Road provide local road access to the Moonee Beach residential and commercial areas. Direct road access to the development is proposed through the extension of Estuary Drive (Northern Collector Road) which is a collector road already partially constructed in accordance with the Coffs Harbour City Council Moonee Release Area Development Contributions Plan 2017. The Northern Collector Road extension is approved under a separate development consent.



Pacific Highway/Moonee Beach Road interchange and Moonee Beach Road/Northern Collector Road roundabout.

2.3 Moonee Release Area Development Contributions Plan 2017

Coffs Harbour City Council Moonee Release Area Development Contributions Plan 2017 includes the following sections on design population and traffic and transport infrastructure;

5. FORECAST DEVELOPMENT AND POPULATION GROWTH

- 5.1 *The forecast yield of subdivided residential lots and the related population growth are based upon: -*
- a) ***The development yields enabled by development consents granted by the Department of Planning and Environment to the date of adoption of this Plan (under Part 3A of the Environmental Planning and Assessment Act (as amended) 1979 and Coffs Harbour City Council based upon preceding Developer Contributions Plans for this Release Area; and***
 - b) *The forecast yield of lots and dwellings from land zoned for residential development purposes are based on current approvals and projected lot yields included in Moonee Development Control Plan 2004.*
- 5.2 *The consequent ultimate future lot yield is forecast to be 1,153 lots.*

17. TRANSPORT AND TRAFFIC MANAGEMENT

- 17.1 *The strategy for the movement of people within and through the Moonee area recognises the dependence on the motor vehicle, yet provides for an efficient and convenient network of pedestrian and bicycle routes. The strategy also provides the infrastructure needed for an efficient bus service.*
- 17.2 ***The Moonee Release Area is bisected by the Pacific Highway. Access to the east is provided by Moonee Beach Road and to the west by Hoys Road / Old Bucca Road via the recently completed grade separated intersection constructed in conjunction with the Pacific Highway upgrade.***
- 17.3 *The transport demands within the release area are categorised in terms of the road network, public transport and pedestrian / bicycle network.*
- 17.4 ***Construction of a collector road north of Moonee Beach has commenced. The cost of this road including land acquisition up to the southern boundary of Lot 1 DP 725785 is funded under this contributions plan. This includes a bridge over Cunninghams Creek, and a culvert over the watercourse in lot 6 DP 1140702.*** *A collector road is also proposed from Moonee Beach Road south to the boundary of lot 66 DP 551005. This road is to be of a 9 metre standard, with 1/9th of the cost, being the difference between a local road and a collector road, is funded by contributions. It is proposed to upgrade Hoys Road / Old Bucca Road to service this urban area, including access to the school site and future playing fields.*
- 17.5 *To provide for a safe, comfortable and efficient bus service, certain basic facilities are required, including bus shelters, seats and bus bays. Bus bays are to be included in the cost estimates for a Collector Road. It is proposed to provide bus shelters / seats at each stop. A total of 9 shelters will be provided and funded by contributions, as shown in Map 4.*

- 17.6 *Contributions for the works described at points 17.4 and 17.5 above will be levied on all development occurring within the northern precinct as shown at Map 1.*
- 17.7 ***Certain transport and traffic facilities are being provided to accommodate the future needs of the entire Moonee Release area.***
- 17.8 ***Moonee Beach Road has been upgraded, and a roundabout constructed to provide for increased levels of traffic and ease of movement around the release area and to the shopping centre. The cost of these works is to be recouped via contributions from all future development within the Moonee Release Area as shown in Map 1.***
- 17.9 *The provision of a district network of pedestrian and bicycle facilities in residential areas can provide an important alternative transport route for both recreation and functional journeys. The proposed routes are identified Map 4 and have been designed to relate to the need for access to the school site, recreation facilities and shops. These facilities will also provide a link for the Coastal Walk. Contributions towards these works will be levied on all development within the Moonee Release area as shown in Map 1*

The extension of Estuary Drive (Northern Collector Road) is a collector road partially constructed in accordance with the Coffs Harbour City Council Moonee Release Area Development Contributions Plan 2017, and as noted in the plan, designed to cater for the approved development. Similarly, Moonee Beach Road and the collector road intersection roundabout have been constructed in accordance with planning for traffic generation from the approved development.

2.4 Pacific Highway/Moonee Beach Road interchange

The Pacific Highway Sapphire to Woolgoolga Upgrade project opened fully to traffic in July 2014. Where the current development consent for 'The Glades' project refers to access to the Pacific Highway via an 'at grade' intersection, the Sapphire to Woolgoolga Highway Upgrade project has resulted in construction of a Motorway standard grade separated interchange connecting Moonee Beach Road to the Pacific Highway and to Solitary Islands Way. Solitary Islands Way provides a local access road parallel to the Pacific Highway connecting Moonee Beach and other Northern Beaches Coastal villages.

The RMS (then RTA) Coffs Harbour Highway Planning Sapphire to Woolgoolga Section Environmental Assessment Report November 2007 confirms that the planning and design for the Moonee Beach Road interchange made allowance for traffic growth on the Pacific Highway and local traffic generation due to residential development.

Sapphire to Woolgoolga Section Environmental Assessment Report, page 10-7;

10.2.3 Predicted traffic volumes

Increase in local traffic

*Due to the large increase in population expected to be housed within the Coffs Harbour local government area, there is also expected to be a large increase in the amount of local traffic. Data on future development from the **Coffs Harbour Land Capacity Assessment 2004 (Coffs Harbour City Council 2004)** was utilised to predict the level of traffic generation from each of the proposed developments.*

3 Proposed Development Modification

3.1 Development layout

The proposed development layout and additional Lots is described in the Resource Design & Management, The Glades Estate – Overall site plan (appendix A). The proposed modification provides for an additional 31 allotments to the 524 approved Lots. The additional lots are located central to the residential development with road access from a number of local roads consistent with the approved development.

3.2 Traffic Generation

The proposed modification provides for an additional 31 allotments to the 524 approved Lots.

RMS Guide to Traffic Generating Developments	Approved Lots	Development Traffic generation
Daily movements 9.0 / dwelling	524	4716 v.p.d.
Peak movements 0.85 / dwelling	524	445 v.p.h
	Additional Lots	Development Traffic generation
Daily movements 9.0 / dwelling	31	279 v.p.d.
Peak movements 0.85 / dwelling	31	26 v.p.h

4 Traffic Impact Assessment

4.1 Local Roads

The additional residential lots are located central to the approved development layout with road access from a number of local roads consistent with the existing consent.

Local roads will be designed in accordance with Coffs Harbour City Council Development Design Specification with no amendment required to road layout, bus routes or service vehicle access.

4.2 Northern Collector Road

The extension of Estuary Drive (Northern Collector Road) is partially constructed in accordance with the Coffs Harbour City Council Moonee Release Area Development Contributions Plan 2017, and as noted in the plan, designed to cater for the approved development. Similarly, Moonee Beach Road and the collector road intersection roundabout have been constructed in accordance with planning for traffic generation from the approved development.

Coffs Harbour City Council Development Specifications provide indicative limits to design daily traffic volumes with a Collector Street (with access to residential allotments) having maximum traffic volume of 6,000 v.p.d. and roads with restricted access 10,000 v.p.d.

With the Northern Collector Road designed in accordance with Coffs Harbour City Council Development specifications the nominal increase in traffic generation as a result of the additional 31 Lots from 4716 v.p.d to 4995 v.p.d (Section 3.2) will have no impact on road safety, amenity or levels of service.

4.3 Moonee Beach Road Intersection

The Moonee Beach Road/Estuary Drive roundabout was forward funded and constructed as part of the Moonee Shopping Centre development. The roundabout was part of the Moonee Development Control Plan and Moonee Developer Contributions Plan and was designed to cater for all residential and commercial development traffic from land zoned in the Moonee DCP at the time. This plan included an extension of the southern collector road (Sullivan's Road) to the south to provide a local road link to the Sapphire Beach development area,

The Pacific Highway Sapphire to Woolgoolga Upgrade project has subsequently provided this local road connection via Solitary Islands Way and Coffs Harbour City Council has amended the Moonee Release Area Development Contributions Plan 2017 terminating the southern collector road north of the Sapphire Beach development.

This amendment and consequent reduction in design traffic for the southern collector road results in significant increase in the capacity of the local road network, and particularly the Moonee Beach Road roundabout, to cater for additional future traffic growth.

Notwithstanding this, section 3.2 of this report shows that the additional traffic generation from the proposed additional 31 Lots will result in a less than 6% increase in peak hour traffic volumes which will have a negligible impact on roundabout peak hour levels of service.

4.4 Pacific Highway/Moonee Beach Road interchange

The Pacific Highway Sapphire to Woolgoolga Upgrade project has provided a Motorway standard grade separated interchange connecting Moonee Beach Road to the Pacific Highway and to Solitary Islands Way. Solitary Islands Way provides a local access road parallel to the Pacific Highway connecting Moonee Beach and other Northern Beaches Coastal villages.

Planning and design for the Moonee Beach Road interchange made allowance for traffic growth on the Pacific Highway and local traffic generation due to residential development. As traffic generation resulting from 'The Glades' residential development has been taken into account in the design of the Pacific Highway Interchange the minor increase in traffic generation for the additional 31 Lots will have insignificant impact on the interchange levels of service.

4.5 Public Transport

Coffs Harbour City Council Moonee Release Area Development Contributions Plan 2017 specifies defined bus routes and provides for bus shelter infrastructure to service new development. The approved development concept is designed to accord with the Contributions Plan requirements. The location of the proposed additional 31 Lots provides adequate travel distance to the bus service bus route and will have no impact on bus service or infrastructure requirements and represents minimal variation to the approved plan.

4.6 Footpaths and Cycleways

Coffs Harbour City Council Moonee Release Area Development Contributions Plan 2017 provides for footpath and cycleway connections throughout road reserve and public reserve areas in new residential areas. The approved development concept is designed to accord with the Contributions

Plan requirements. The location of the proposed additional 31 Lots provides good access to footpaths and cycleways and represents minimal variation to the approved plan.

5 Conclusion

The Pacific Highway Sapphire to Woolgoolga Upgrade project has provided a Motorway standard grade separated interchange connecting Moonee Beach Road to the Pacific Highway and to Solitary Islands Way. Solitary Islands Way provides a local access road parallel to the Pacific Highway connecting Moonee Beach and other Northern Beaches Coastal villages. As traffic generation resulting from 'The Glades' residential development has been taken into account in the design of the Pacific Highway Interchange the minor increase in traffic generation for the additional 31 Lots will have insignificant impact on the interchange levels of service.

Moonee Beach Road and the Northern Collector Road servicing 'The Glades' residential development have been designed in accordance with Coffs Harbour City Council Development specifications and Coffs Harbour City Council Moonee Release Area Development Contributions Plan 2017. Traffic Generation from the approved 'The Glades' residential development has been taken into account in the planning and design of the road network infrastructure. The nominal increase in traffic generation as a result of the additional 31 Lots will have no impact on road safety, amenity or levels of service on the road network.

The location of the proposed additional 31 Lots provides adequate travel distance to the bus service bus route and will have no impact on bus service or infrastructure requirements and represents minimal variation to the approved plan.

Coffs Harbour City Council Moonee Release Area Development Contributions Plan 2017 provides footpath and cycleway connections throughout the road reserve and public reserve areas. The location of the proposed additional 31 Lots provides good access to footpaths and cycleways and will have no impact on infrastructure requirements.

6 References

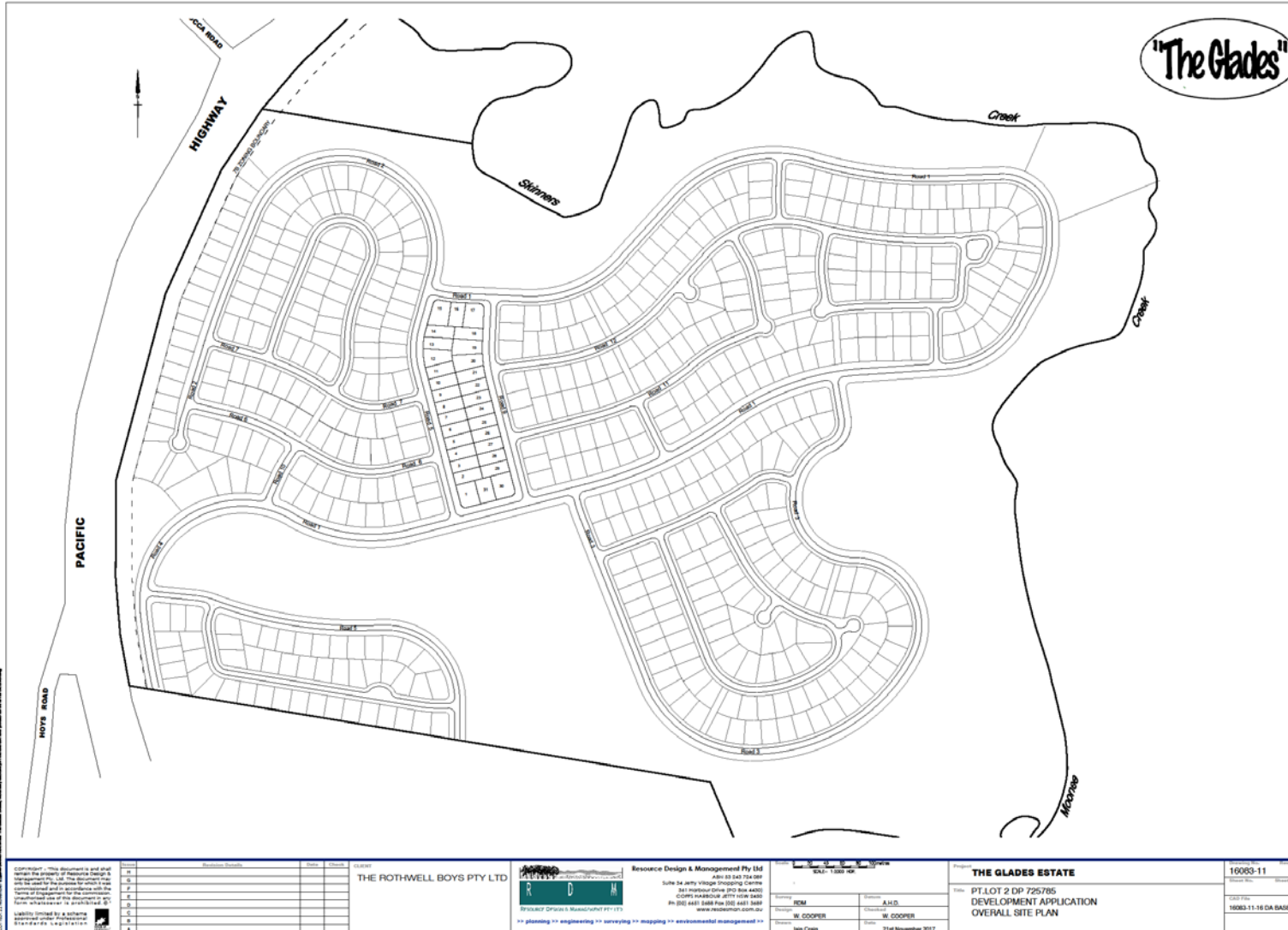
Coffs Harbour City Council Development Control Plan 2015

Coffs Harbour City Council Moonee Release Area Development Contributions Plan 2017

Coffs Harbour City Council Development Specification Design

Roads and Maritime Services Guide to Traffic Engineering Developments

Appendix A – The Glades Estate – Overall Site Plan



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