

Technical Paper

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Traffic Management Plan for Construction



ARDILL PAYNE & PARTNERS

Civil & Structural Engineers – Project Managers – Town Planners – Surveyors

TRAFFIC MANAGEMENT PLAN (CONSTRUCTION PHASE)

Prepared for:



Tweed Valley Way & Jones Road, Yelgun

> A project of: Billinudgel Property Pty Ltd (Billinudgel Property Trust)

> > June 2010

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1 Introduction

Ardill Payne and Partners (APP) has prepared a Traffic Management Plan (TMP) for the construction phase of the proposed development of a world class sustainable cultural events site within an enhanced ecological setting at North Byron Parklands, Tweed Valley Way and Jones Road, Yelgun.

The TMP has been prepared in accordance with the Roads and Traffic Authority's Manual 'Traffic Control at Work Sites – Version 3' and AS 1742.3-2002 'Manual of Uniform Traffic Control Devices Part 3: Traffic Control Devices for Works on Roads'.

The aim of the TMP is to control traffic movements onto the site, and traffic and pedestrian movements past the site during the construction phase of the development, in order to effectively manage safety and access issues for construction vehicles, pedestrians and the general public.

The TMP has been prepared by Tony Cromack who is an RTA accredited to Design and Inspect Traffic Control Plans (Certificate No. 7283006883).

The Principal Contractor refers to the nominated representative of the main construction company engaged by the developer of the site. The Site Manager is the Principal Contractors most senior employee on the site who is responsible for overall construction activities. The Principal Contractor is responsible for the performance of the Site Manager.

1.1 Terminology

Gate A – off Tweed Valley Way, approximately 700m south of Jones Road.

Gate B – off Tweed Valley Way opposite Yelgun Road, approximately 300m south of Gate A.

Gate C – off Tweed Valley Way, approximately 200m north of Gate A.

Gate S – off Jones Road.



2 Director General's Requirements

The Director General of the Department of Planning determined that the proposal was a Major Project pursuant to Part 3A of the Environmental Planning and Assessment Act 1979, and issued Environmental Assessment Requirements (DGRs) on 25 August 2009. The DGRs that are related to this report are as follows:

 Attachment 2, Project Application, 6.0 Construction Management Plan – a plan which outlines traffic and pedestrian management during construction and management of impacts on amenity of adjoining properties and appropriate mitigation measures including noise, dust and sediment and erosion controls.

This report deals specifically with traffic and pedestrian management during construction, and shall be read in conjunction with the *'Construction Management Plan'*, Ardill Payne & Partners, June 2010.

3 Site Details and Proposed Development

3.1 Site Details

The site is located on the eastern side of the Tweed Valley Way at Jones Road, approximately 6.5km south of Mooball, 5.5km north of Brunswick Heads north turnoff, and 23.5km north of Byron Bay.

3.2 **Proposed Development**

The proposal is for the development of a world class sustainable cultural events site within an enhanced ecological setting at North Byron Parklands, Tweed Valley Way and Jones Road, Yelgun. The development includes the construction of new road pavements and site accesses, the upgrade of existing road pavements, the construction of a new crossing of Jones Road, and associated infrastructure works.



4 Existing Traffic Environment

The existing traffic environment is summarised as follows:

4.1 Adjoining Development

The site is adjoined by existing rural uses (primarily grazing), the Billinudgel Nature Reserve and Tweed Valley Way. A small rural holding with a dwelling is located on the southern side of Jones Road.

4.2 Road Pavements

Tweed Valley Way has a minimum sealed carriageway width of approx 7.2m (2 x 3.6m lanes), with approx 1.0m wide sealed shoulders. The road is of a typical 2 lane highway standard, in good condition, centre and edge line marked, with a current speed limit of 80kph. At Gate A the existing bitumen seal is approximately 13.5m wide.

A channelised intersection with dedicated turn lanes exists at the intersection of Tweed Valley Way and Yelgun Road. Right turn is provided into Yelgun Road and the intersection is clearly linemarked.

Jones Road is a single lane rural road, with a gravel formation of approximately 3.5m in width, and table drains both sides. The road is windy and undulating and is flanked by large trees which give it a natural charm. The road provides access to several rural properties along its length.

4.3 Parking

Parking for construction vehicles in the vicinity of the works, especially along Jones Road, is limited.

4.4 Traffic Flows

Traffic flows are highest during weekday peak periods which occur generally between about 7:00am to 9:00am, and 4:00pm to 6:00pm. High traffic volumes also occur during holiday periods.



4.5 Footpaths

There are no formed or paved footpaths in the road frontages. Pedestrian volumes are low. School children use Jones Road to access a bus service stopping at the intersection with Tweed Valley Way.

5 **Construction Details**

5.1 Construction Sequence

Construction activities will commence with the installation of erosion and sedimentation control devices, and the implementation of management plans. Following this, the removal of approved trees within the Jones Road construction zone can commence.

Activities involving disruptions to local traffic will include:

- on Tweed Valley Way, site access for construction vehicles involved in internal works
- on Tweed Valley Way, the construction of a new channelized intersection at Gate A (the main site entry) and widening of the pavement at Gate C (bus entry/exit) to accommodate temporary turn movements during events. Construction is expected to take about 4-6 weeks.
- on Jones Road, the upgrade of approximately 350m of the existing road (road pavement, bitumen surfacing and some lengths of kerb & gutter), and the construction of a new property access (Gate S). Construction is expected to take about 6-8 weeks.
- on Jones Road, the construction of a new crossing to connect the southern and northern sections of the site. This crossing will consist of either an underpass beneath Jones Road, or an at-grade intersection. Construction is expected to take about 8-10 weeks.
- linemarking of the new intersection at Gate A.

During the proposed road construction on Tweed Valley Way, traffic controllers will be in attendance to direct traffic and pedestrians through the works area. Access will be available at all times under traffic control.

During the proposed road construction on Jones Road, traffic controllers will be in attendance to direct traffic and pedestrians through the works area. Access will be available at all times under traffic control. The contractor will be advised of the specific requirements of the residents of



Jones Road, especially with respect to access to bus services for school children in the morning and afternoon.

Should the underpass be constructed beneath Jones Road, a temporary detour road will be constructed on the northern side of Jones Road to provide a bypass around the works area during construction of the underpass.

5.2 Hours of Operation

Construction activities shall be restricted to between 7:00am and 6:00pm on weekdays and 8:00am and 1:00pm on Saturdays and timed to avoid peak periods. No construction work shall occur on Sundays, Public Holidays, or as specified in the development consent.

5.3 Deliveries and Access to the Site

Where possible, deliveries shall be timed to occur outside of peak traffic periods on weekdays. The site access for all construction and delivery vehicles shall be from either Gate C or Jones Road. All vehicles shall enter and leave the site in a forward direction.

6 Traffic Management Proposals

Traffic management in the vicinity of the site will be required in order to minimise disturbance to nearby residents and through traffic, and maintain safety for the general public. This section describes procedures that should be adopted to safely manage traffic and pedestrians.

The following traffic management proposals shall be read in conjunction with the attached drawings **6883-TCP1 to TCP7**.

6.1 Pedestrians / Cyclists

Only very low volumes of pedestrians and cyclists currently pass the site.

The residents of Jones Road, in particular school children, access bus services on Tweed Valley Way. Residents will be advised of traffic movements and management measures prior to works commencing.



6.2 Construction Traffic

<u>General</u>

Deliveries of construction materials should be done in off-peak times. Where possible, all deliveries shall occur outside of peak periods on weekdays. All construction vehicles shall enter and leave the site in a forward direction. Adequate space is available on site for the maneuvering of all construction vehicles.

Traffic control during site access by construction vehicles is shown on drawing **6883-TCP2**.

It is advised that the movement of large and articulated vehicles should generally occur outside of peak periods. Therefore these vehicles are not expected to have difficulty merging into the traffic on Tweed Valley Way.

Drivers and sub-contractors will be informed of the proposed traffic management procedures prior to commencing work on the site.

Road Works

Signs and Traffic Controllers will be positioned in both the northern and southern approaches to works on Tweed Valley Way, and on Jones Road.

It will be necessary to close the shoulders of Tweed Valley Way at various times during the construction of the road works. A minimum trafficable width of 3.0m in the adjacent lane shall be maintained during these closures. Partial closures of Tweed Valley Way may also be necessary during new line marking.

Traffic control during the proposed roadworks on Tweed Valley Way is shown on drawings **6883-TCP3 & TCP4**. Traffic control during linemarking is shown on drawings **6883-TCP6 & TCP7**.

Should the underpass be constructed beneath Jones Road, it will be necessary to completely close part of Jones Road. A temporary bypass road will be constructed on the northern side of Jones Road and will be open for the duration of the underpass construction.



A layout of the proposed roadworks in Jones Road is shown on drawing **6883-TCP5**.

Access past or through the work areas shall be available at all times during the works.

Parking

It is expected that construction vehicles will park on the site at all times. Drivers, sub-contractors and staff will be informed of the proposed traffic management procedures and parking requirements prior to commencing work on the site.

6.3 Traffic Controllers and Speed Reduction Zones

Traffic management will involve the use of RTA accredited Traffic Controllers to coordinate traffic and pedestrian movements at the site. Traffic Controllers will be positioned in both the northern and southern approaches to works on Tweed Valley Way, and on Jones Road, in accordance with the attached drawings **6883-TCP1 to TCP7**.

The Traffic Controllers will:

- Ensure that disruption to through traffic and local traffic is minimised
- Coordinate vehicle movements into and out of Jones Road and the site, and minimise the disruption to local residents

RTA accredited Traffic Controllers will be used to ensure the safety of the public, workers and vehicles, and to ensure dangerous conditions do not occur.

Traffic speeds shall be reduced to 40kph in all locations where traffic controllers are stationed, for the duration of the roadworks. Appropriate approvals shall be obtained for the speed reduction zones.

6.4 Signage and Barriers

Signage and barriers erected for the works shall be in accordance with the attached drawings **6883-TCP1 to TCP7**. Changes are not permitted, except during emergencies, without the approval of the Traffic Engineer or an RTA accredited Council officer.



6.5 Emergency Contacts and Responsibilities

The Traffic Control Services provider shall be provided with the contact details of an appropriately trained person to contact in the event of an accident or emergency on the site or associated with the development.

The Principal Contractor is responsible for implementing the Traffic Management Plan and for ensuring that it is properly maintained. The Principal Contractor shall notify the Traffic Engineer of any inadequacies. Additionally they shall be responsible for ensuring that all sub-contractors are aware of the requirements of the Traffic Management Plan and adhere to these requirements.

7 **Recommendations**

An assessment of traffic management issues associated with the proposed roadworks has been undertaken by Ardill Payne & Partners.

It is recommended that:

- this Traffic Management Plan be implemented by the Principal Contractor
- the Principal Contractor inform all staff and sub-contractors of the requirements of the Traffic Management Plan
- an incident reporting system be implemented to record and identify any incidents and problems that arise during the works
- Site Risk Assessments for the Traffic Control Plans shall be conducted by the traffic control company responsible for implementing the Plans. Copies shall be kept by the company for viewing by the relevant authority if requested.

In view of this assessment, it is concluded that construction traffic, along with the local traffic on the local road network, will be safely and effectively managed during the works. The Traffic Management Plan provides for the safe and efficient movement of vehicles and pedestrians in the vicinity of the works.



8 Scope of Engagement

This report has been prepared by Ardill Payne & Partners (APP) at the request of Billinudgel Property Trust for the purpose of traffic management during the construction phase of the proposed cultural event site at North Byron Parklands, and is not to be used for any other purpose or by any other person or corporation.

This report has been prepared from the information provided to us and from other information obtained as a result of enquiries made by us. APP accepts no responsibility for any loss or damage suffered howsoever arising to any person or corporation who may use or rely on this document for a purpose other than that described above.

No part of this report may be reproduced, stored or transmitted in any form without the prior consent of APP.

APP declares that it does not have, nor expects to have, a beneficial interest in the subject project.

To avoid this advice being used inappropriately it is recommended that you consult with APP before conveying the information to another who may not fully understand the objectives of the report. This report is meant only for the subject site/project and should not be applied to any other.



9 Attachments

Attachment 1

Traffic Control Plans

Drawing 6883-TCP1	
Drawing 6883-TCP2	
Drawing 6883-TCP3	
Drawing 6883-TCP4	
Drawing 6883-TCP5	
Drawing 6883-TCP6	
Drawing 6883-TCP7	

Works Locality Plan Site Access for Construction Vehicles Southern Tweed Valley Way Signage Northern Tweed Valley Way Signage Jones Road Construction Works Linemarking 1 Linemarking 2



ATTACHMENT 1

Attachment 1 Traffic Control Plans







GENERAL NOTES: The Contractor

all necessary traffic and pedestrian control devices and warning signage in accordance with AS1742.3 "Traffic Control Devices and Works on Roads", The RTA Manual "Traffic Control at Works Sites" and to the satisfaction of the Approval Authority. - Signs T1-200 and T1-18 shall be covered or removed when Traffic Controllers are absent. - Traffic Controllers shall be RTA accredited, and wear approved wellow high visibility safety clothing Iraffic Controllers shall be RTA accredited, and wear approved yellow high visibility safety clothing displaying the words "Approved Traffic Controller".
Sign T1-5 shall be displayed only while workers or machines are in the work area; remove or cover sign between shifts.
Signs shall be 'B' size.
Barrier boards shall not be placed parallel to the direction of traffic flow, unless they are at least 4m clear of traffic.
Cones and bollards shall only be used while work

- Cones and bollards shall only be used while work is in progress and employees are in attendance. For long term works, post mounted delineators shall be used

Work vehicles shall be parked on the work site, or on work side of roadway behind delineation. - Signs and devices shall be clearly visible to road

users, not obscured by vegetation, parked vehicles, plant or other signs and devices.
Plans shall be used in conjunction with safe practices and guidelines as described in RTA Manual Traffic Orden of Wich Charles' and express OMC

Traffic Control at Work Sites' and current OHS guidelines

- Alterations to this T.C.P are not permitted, except in emergency situations, without approval of the Engineer.

a) MONDAY - FRIDAY 7am - 5pm

b) SATURDAYS – 8am – 1pm
c) SUNDAYS & PUBLIC HOLIDAYS – NO
DISRUPTION OF TRAFFIC ALLOWED

Note: Traffic Control Plan Subject to review upon appointment of the Principal contractor and finalisation of construction sequence

Legend

(5)

(6)

7

(8)

(9)

Title

REDUCE SPEED

T2-222

HEAD

R4-225 40k

T1-16

T2-16

T1-25

Plan - Construction

Northern Tweed Valley

Way Signage

Town Planners & Surveyors

79 Tamar Street P.O. Box 20

BALLINA NSW 2478

PREPARE

TO

STOP

T1-200

R4-212 40kpl

North Byron Parklands

Tweed Valley Way & Jones Road

Wooyung

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1

2

3

4

Project:



Approved

6883

Job No

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6883-TCP

Issue

Dwg. No

∏CP4**229**







Project:

Traffic Control at Work Sites

