



Contact: Chloe Dunlop
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Mr Jake Burgess
Managing Director

Dear Mr Burgess

**Subject: Construction Traffic Management Plan – Condition C3
Sydney Zoo – SSD 7228**

I refer to your request for the Secretary's approval of the Construction Traffic Management Plan (dated November 2017) in accordance with Condition C3 of the development consent granted by the Planning Assessment Commission on 8 September 2017 (SSD 7228).

The Department of Planning and Environment has considered your request against the requirements of Condition C3 and approves the Construction Traffic Management Plan.

Should you have any questions regarding the above, please contact Chloe Dunlop, on 02 8289 6667.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'C. Ritchie'.

Chris Ritchie
Director
Industry Assessments
As the Secretary's Nominee

15/12/17.

SCHEDULE C
ENVIRONMENTAL PERFORMANCE AND MANAGEMENT

TRAFFIC AND ACCESS

C1. No work associated with the Development shall be carried out on land owned by RMS without consent of RMS.

Parking

C2. The Applicant shall provide sufficient parking facilities on the site during both construction and operation, including for heavy vehicles and for site personnel, to ensure that traffic associated with the Development does not utilise public and residential streets or public parking facilities. Where there is an overflow, the Applicant must implement reasonable and feasible measures to minimise queuing on the surrounding road network. Detail of these measures shall be presented within the Operational Traffic Management Plan (see Condition C5).

Construction Traffic Management Plan

C3. The Applicant shall prepare a Construction Traffic Management Plan for the Development which will form part of the CEMP in Condition D1 of this consent. The plan shall:

- (a) be prepared by a suitably qualified and experienced person, in consultation with TfNSW, RMS and Council;
- (b) detail the measures that would be implemented to ensure road safety and network efficiency during earthworks and construction;
- (c) detail heavy vehicle routes, access and parking arrangements;
- (d) include a Driver Code of Conduct to:
 - minimise the impacts of construction on the local and regional road network;
 - minimise conflicts with other road users;
 - ensure truck drivers use specified routes;
- (e) include a program to monitor the effectiveness of these measures; and
- (f) if necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes.

Operating Conditions

C4. The Applicant shall ensure:

- (a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the Development are constructed and maintained in accordance with the latest version of AS 2890.1 and AS 2890.2;
- (b) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant AUSTRROADS guidelines;
- (c) heavy vehicles and bins associated with the Development are not parked on local roads or footpaths in the vicinity of the site;
- (d) all loading and unloading of materials is carried out on-site;
- (e) all trucks entering or leaving the site with loads have their loads covered and do not track dirt onto the public road network; and
- (f) the proposed turning areas in the car park are kept clear of any obstacles, including parked cars, at all times.

Operational Traffic Management Plan

C5. The Applicant shall prepare an Operational Traffic Management Plan for the Development which will form part of the OEMP in Condition D4. The plan shall:

- (a) be prepared by a suitably qualified and experienced person, in consultation with TfNSW, RMS and Council;
- (b) include detail of specific management measures to be implemented during the initial year of operations to address potentially higher than anticipated visitation;
- (c) include detail of management measures for parking, traffic and transport during high visitation periods (particularly under any operating times considered under the 'peak' scenario in the EIS) including allocated arrival times, off-peak ticketing and the promotion of public transport);
- (d) include details and analysis of how the largest vehicle can enter and exit the site access, site carpark and loading areas; and
- (e) include detail of management measures to be implemented to minimise impacts offsite, including impacts upon the local road network, public transport services and pedestrian access.



Construction Traffic Management Plan

Project Name	Sydney Zoo
Job No.	
Client	Sydney Zoo Pty Ltd
Contract No.	

Document No. 1

Holder: DARACON

Revision	Date	Prepared By	Reviewed By Project Manager		Authorised By HSEQ Manager	
			Name	Sign	Name	Sign
TMP_01	Nov 17	John Rossi				

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Sydney Zoo, Bungarribee Parklands**1. INTRODUCTION**

This Construction Traffic Management Plan applies to the Sydney Zoo project and forms part of the overall Project Management Plan. It has been developed to meet the requirements of the relevant Road Authorities and Australian Standards for the safe and controlled movement of traffic at worksites.

The following principles have been applied in the preparation of this document:

- Consultation with relevant agencies, community representatives and road users is an essential part of the planning process
- Only qualified and experienced personnel shall prepare and install Traffic Control Plans (TCP)
- Minimise the impact on road users and adjoining communities by providing ample notice of changes to traffic arrangements
- Regularly monitor traffic facilities to ensure ongoing effectiveness
- Keep orderly, current and complete records to verify conformance
- Look for opportunities to improve processes and project delivery

1.1 Distribution List

Document No.	Holder	Issue Date	Entered By:
1	Daracon Group		
2			
3			

1.2 Document Control

The CTMP is a controlled document and shall be managed in accordance with the Document Data Control Procedure. Each person receiving a controlled copy is responsible for keeping it in good order and incorporating changes as they are distributed.

This plan shall be amended to reflect changes in personnel, the scope of work, work methods, the nature and frequency of testing and record requirements. Amendments shall be reviewed by the Project Manager before approval by the Systems Manager or designee.

Revised pages shall be issued to holders of a controlled copy of the plan.

1.3 Review

In general, TCPs shall be under constant review by those personnel using the plan and any deficiency shall be noted for corrective action.

The Systems Manager or designee shall audit the effectiveness of the TMP as part of the internal audit process or whenever an opportunity for improvement is identified. Further to this and depending on the requirements of the project additional road safety audits may be scheduled to be undertaken as determined by the scope of works by qualified and certified Road Safety Auditors .

2. PROJECT OVERVIEW**2.1 Job Title**

Name of job: Sydney Zoo

Contract Number: TBA

Job Number:

Address/Location: Part of Lot 101, Bungarribee Parklands, Great Western Highway, Eastern Creek, NSW 2766

2.2 Client

Name of Client: Sydney Zoo Pty Ltd
Address: 3 Willis Ave Waverley NSW 2041

Client Representative

Name of Client Representative: Signature Project Management
Address: Suite 202/Level 2, 272 Pacific Highway, Crows Nest, NSW 2065
Phone: 1300 652 197/02 9901 3000
Contact: Dean Gavrilovic
Email: dean@signaturepm.com.au

2.3 Scope of Work

All of Daracon's works are to comply with local, state, federal and Client safety specifications. Activities to be conducted in this job include:

- Site establishment
- Personnel Induction
- Survey control and set out
- Tree Protection fencing
- Stripping, Stock piling of topsoil
- Bulk Earthworks involving cut to fill onsite
- Installation of Sewers and water reticulation
- Installation of Subsoil Drainage
- Installation of Electrical
- Construction of Road Pavement and Car Park
- Construction of Footpaths
- Construction of Moats for Animal Exhibits

2.4 Existing Conditions

- The Sydney Zoo site is located in the Western Sydney Parklands at Bungarribee. The Great Western Highway fronts the site. The site entrance is within the existing signalised intersection at Great Western Highway, and Rudders Lane. There is a major intersection 400m to the east at The Great Western Highway and Doonside Rd/Bradham Drive. The Great Western Highway is a 3 lanes, each way divided road, with dedicated right turn and left turn lanes into the site. There are no shoulders, and the section of road in front of the site is a no stopping zone.
- Doonside Rd is a major sub-arterial road access to Arndell Park industrial area, and is 2 lanes each way. There is an existing intersection at Holbeche Rd and the recently completed Bungarribee Park. Bungarribee Park backs onto the Sydney Zoo site.
- There are no formal pedestrian paths on Great Western Highway and Doonside Rd. However there are grass verges behind the kerbs. There is a signalised pedestrian crossing, at the site access. There is no pedestrian access through the site to Bungarribee Park. Pedestrian access to Bungarribee Park is via Doonside Rd only.

There is currently no on-road or off-road provisions for cyclists.

2.5 Construction Impact on Road Users

The project scope does not include any modifications to the Great Western Highway, other than connection of utility services to the mains along the Great Western Highway. Traffic management provisions will essentially be to facilitate access to the site. The existing signalised intersection at the Great Western Highway/Rudders Lane/Bungarribee Access will be the only access point to the site. There will be no access from Bungarribee Park.

Works Traffic

Generation of additional traffic from the works is expected to be minimal and in accordance with the Traffic Impact Statement as prepared by GTA Consultants (Traffic Consultants), that is in the order 20 to 40 movements per day. At peak volumes would be 10 vehicles per hour. Vehicle movements required include;

- Light vehicles
- Concrete agitators
- Truck and trailers
- Semi trailers

The site is conveniently located with direct access to the arterial road network via the intersection of the Great Western Highway/Rudders Lane/Bungarribee Access. As such construction vehicles are expected to travel west along the Great Western Highway to access the M7 motorway and surrounding western suburbs or east along the Great Western Highway linking to the broader regional arterial road network.

As identified by the traffic consultant and Daracon concurs, the anticipated construction vehicle volumes would be relatively minor in the context of the existing road network and background traffic volumes and therefore would likely have a negligible impact on the surrounding road network and nearby intersections.

Daracon understands that the existing signal phasing allows turn movements in and out of the site under signals. Therefore access for our works traffic will be provided within the existing operation of the signalised intersection at the Great Western Highway/Rudders Lane/ Bungarribee Access.

Swept paths analysis at the intersection of the Great Western Highway/Rudders Lane/Bungarribee access including access by heavy vehicles to a similar tourist facility was completed as part of the design and approval of the intersection. Swept path assessment for the turns into the Bungarribee Access was undertaken and provided by Western Sydney Parklands Trust (WSPT). Refer Appendix 7.1. No changes to the intersection layout are proposed.

Heavy vehicle Routes

The site can be accessed using major arterial roads and motorways such as The Great Western Highway and the M7. The site access and preferred routes will be communicated in the site induction, and Delivery Driver Induction.

Construction is expected to commence in December 2017 and take about 10 months to complete.

Parking

A no stopping zone is in place on the Great Western highway immediately fronting the site entrance. Parking will be made available within the boundary of the site, or in the site compound. Parking arrangements will be communicated in the site induction, and Delivery Driver Induction.

Impacts on road users and surrounding properties

- Through traffic – The construction works are wholly within the boundary of the private lot and does not affect the traffic flow on Great Western Highway and Doonside Rd with the exception of access and egress. No construction access is permitted from Doonside Rd.
- Pedestrians & cyclists– There is no interaction with pedestrians other than the signalised pedestrian crossing at the site access. Warning signs at the intersection will be used to warn pedestrians of trucks turning and to use the pedestrian crossing.
- Heavy vehicles – There are no changes to the existing road network and therefore Daracon do not expect any impacts on heavy vehicles.

- Property access – The works remain exclusive within and to the frontage of the Client's Property and therefore no impact to third party property access. There is no impact on the access to Bungarabee Park, which is located in Doonside Rd.
- Local Roads – Doonside Rd is approximately 400m to the east of the site entrance. There is no impact on Doonside Rd.
- Public transport – No specific impact to public transport
- Night work – No night works required
- Bridges – No bridges to be impacted by the works
- Businesses – No businesses to be impacted by the works
- Public establishments, i.e. schools, shopping centres, etc. – The site is adjacent to Bungarabee Park. We understand the site boundary will be fenced to prevent unauthorised access to the site.

2.6 Reference Documents

The following documents form the basis of this plan and outline the work practices that will be adopted. Copies shall be accessible, as hard copy or electronic media, to all site personnel for the duration of the project.

Client documents:

- Contract
- Current RMS Traffic Control at Worksites Manual

Daracon documents:

- Corporate Quality and Environmental Management System
- Relevant Australian Standards

3. PERSONNEL

3.1 Qualifications

Daracon Group has assigned personnel (incl the author of the Plan) to this project who are appropriately qualified including RMS qualifications and experienced in traffic management, i.e. Red Card, Orange Card, etc.

Details of the full project organisation are given in the Project Management Plan.

3.2 Responsibility and Authority

The principal responsibilities for personnel involved in traffic management are as follows:

3.2.1 Project Manager

The Project Manager is responsible for construction management and shall establish and maintain the Construction Traffic Management Plan for this project and shall be responsible for its ongoing effectiveness. The Project Manager shall determine whether the TCPs proposed are appropriate, or are the most appropriate, with or without minor modification.

3.2.2 Project Engineer

The Project Engineer is responsible to the Project Manager for day to day construction management tasks as delegated by the Project Manager. Management of these tasks includes control of all quality, environmental and safety aspects that may apply to traffic control measures.

3.2.3 Project Supervisor

The Project Supervisor is responsible to the Project Manager for the day to day co-ordination and site control of direct labour, plant, subcontractors and suppliers for construction works. Management of these tasks includes the installation, monitoring and maintenance of traffic controls. The Project Supervisor shall consult with the Project Manager, if necessary, to confirm that the proposed TCPs are appropriate.

3.2.4 Traffic Controllers

The Project Manager shall appoint qualified personnel to control traffic according to approved TCPs for the worksite.

4. TRAFFIC MANAGEMENT PLANNING**4.1 General Principles**

Refer TCWM Section 3 if applicable

- Close the minimum length and width of road at each stage to minimise disruption and inconvenience to road users while maintaining working efficiency.
- Inform Supervisors of any events that result in unexpected queues or delays.
- Place signs and devices before work begins in accordance with the current TCP and in clear view of road users.
- Traffic Controllers shall be appropriately qualified and authorised.
- Traffic Controllers shall be used where road users are directed to disobey a traffic regulation such as crossing a barrier line.
- Signs, devices and TCPs shall be used to warn, inform and guide road users safely around, past or through work areas and shall be removed at the completion of the work.
- Work shall be arranged so that workers can work safely at all times by separating workers and road users.
- Work shall be staged to ensure minimum disruption to traffic especially at peak times, nights, weekends, holidays and during special events.

4.2 Construction Traffic Management Plan Approval

A Construction Traffic Management Plan shall be prepared for the project and address the requirements of Traffic Control at Worksites Manual (TCAWM). It shall include review from all relevant Councils and other authorities that have responsibility for temporary traffic arrangements at the work location.

The CTMP shall be submitted to the Client for approval before undertaking work involving any obstruction to traffic.

4.3 Traffic Control Plans

A Traffic Control Plan (TCP) shows the arrangements for warning traffic and guiding it around, past or through a worksite. TCPs shall be prepared for every worksite that may have an impact on traffic movement and shall be updated as necessary to reflect changes in traffic flow or work practices. Only suitably trained personnel (refer TCAW Section 2.4) shall select, design, approve and implement TCPs.

4.4 Selection

The Project Manager may choose a Standard Traffic Control Plan from the Traffic Control at Worksites (TCAW) Manual where it accurately reflects the conditions at a worksite. Minor modifications to the design which may have been identified in a Risk Assessment and/or site inspection shall be made by a person with a current certificate in TCAW Planning.

4.4.1 Design

The Project Manager shall determine whether a site specific TCP is required. Designing a site specific TCP shall be done by a person with a current certificate in the Design and Audit of Traffic Control Plans.

4.4.2 Approval

TCPs shall be approved for use by the Project Manager before being forwarded, with all relevant permits and details to Signature Project Manager.

4.4.3 Implementation

Implementation of an approved TCP is a critical activity that includes the following steps (refer TCAW Section 4.3):

- Place all signs, markings and control facilities
- Complete a Risk Assessment and identify any modifications required
- Drive through the site to make sure the TCP is effective
- Record implementation, risk assessment and modifications
- Monitor conditions frequently and record results

4.5 Public Relations and Communication

The local community, road users and other stakeholders shall be kept informed of changed traffic arrangements so that adverse impacts can be minimized. There are no planned changes to the road network. Signage will be provided to communicate site access. A list stakeholders including emergency services and their contacts will be developed at the start of the project. Specific impacts on particular stakeholders will be communicated to the affected stakeholder either by mail, personal visit, or by phone.

All community complaints will be recorded in the HSEQ Immediate Incident Notification Form IM-FOR-0306-001 and Environmental Incident Investigation IM-REP-0501-002. All complaints will be promptly responded to and a record of this will be kept.

4.6 Temporary Roadways

Temporary roadways do not form part of the scope of works.

4.7 Traffic Controllers

Traffic Controllers must have completed RMS accredited course for Traffic Controllers and must wear yellow vest with RMS logo and the words Authorised Traffic Controller. White overalls with reflective bands must be worn at night.

4.8 Temporary Speed Zones

Temporary speed zones shall be implemented to control the speed of traffic through road works sites. A Direction to restrict the speed limit if required has to be obtained from the appropriate authority.

4.9 Emergency Response

An Emergency Response Plan shall be designed and implemented for the work and shall include the response to traffic emergencies such as accidents or unplanned disruptions.

The Project Supervisor or designee shall be on 24 hour call to respond to emergencies and contact numbers shall be prominently displayed to enable early notification and response.

4.10 Driver Code of Conduct

All vehicle-drivers accessing the site must:

- Report to the site office and if applicable undertake the appropriate site induction
- Take reasonable care for his/her own personal health and safety
- Operate their vehicles in a safe and professional manner, with consideration for all other road users
- Hold a current Australia or State issued driver's licence for the appropriate vehicle.
- Not use mobile phones (call or texting) when driving a vehicle or operating equipment. If the use of a mobile device is required, the driver shall pull over in a safe and legal location prior to the use of any mobile device
- Have necessary identification documentation at hand and ready to present to security staff on entry and departure from the site, as necessary, to avoid unnecessary delays to other vehicles
- Not adversely, by way of actions or otherwise, impact on the health and safety of other persons
- Obey all applicable road rules and laws at all times
- Comply with other applicable workplace policies, including a zero tolerance of driving while under the influence of alcohol and/or illicit drugs
- Drive according to the prevailing conditions (such as during inclement weather) and reduce speed if necessary
- Ensure all loads are safely restrained, as necessary
- Obey the applicable driving hours in accordance with legislation and take all reasonable steps to manage their fatigue and not drive with high level of drowsiness
- Obey all on-site signposted speed limits and comply with directions of traffic in control supervisors in relation to movements in and around temporary of fixed work areas
- Notify their employer if they are not fit for duty prior to the commencing their shift

- Notify their employer or operator immediately should the status or conditions of their driver's licence change in any way
- Advise management of any situations known or which potentially presents a threat to workplace health and safety

5. MONITORING, REVIEW AND IMPROVEMENT

5.1 Inspection and Review

The Project Supervisor shall monitor performance of the traffic control facilities to confirm the effectiveness of methods, equipment and controls. Results shall be recorded and opportunities for improvement recommended to the Project Manager.

The CTMP and associated documentation shall be formally reviewed by the Project Manager each month in the early stages of the contract and at minimum three (3) monthly intervals thereafter. Formal reviews shall be recorded.

Any alterations to the CTMP shall be recorded according to the document control procedure.

5.2 Internal Audit

Conformance audits will be carried out on products, processes and subcontractors in accordance with the Audit Schedule shown in the Project Management Plan. Auditors shall be suitably qualified and independent of the processes being assessed.

6. RECORDS

The following records shall be kept as evidence of the design, implementation and performance of the traffic management facilities:

1. Qualifications
 - Designer
 - Traffic Controller
2. Submission to client
3. TCP approval
4. Temporary speed zone approval
5. Public relations initiatives
 - Letters
 - Handouts
 - Maps and plans
6. Confirmation of implementation
7. Monitoring reports
8. TMC communications
9. Incident reports and corrective action

7. APPENDICES

7.1 The Great Western Highway/Rudders Lane/Bungarrabee Access Intersection (Source: WSPT)

7.2. TCPs / Vehicle, Pedestrian and Cyclist Management Plan

