Project Traffic Management Plan
for
Design & Construction of the
Port Botany Expansion Project of
Sydney Ports Corporation

Document No: PLAN-TM-001
CONTENTS

1  INTRODUCTION ........................................................................................................... 4
2  SCOPE .......................................................................................................................... 5
3  RESPONSIBILITIES ....................................................................................................... 6
4  REFERENCES ............................................................................................................... 7
5  PERFORMANCE REQUIREMENTS ............................................................................. 8
   5.1  General....................................................................................................................... 8
   5.2  Overall Strategy for achieving the Specified Requirements ................................. 8
   5.3  Specific Requirements ............................................................................................ 8
      5.3.1  Speed Limits ...................................................................................................... 8
      5.3.2  Work Site Delineation ........................................................................................ 8
      5.3.3  Vehicles, Cyclists & Pedestrians ..................................................................... 9
      5.3.4  Special Events ................................................................................................... 9
      5.3.5  Public Transport ............................................................................................... 9
6  TRAFFIC MANAGEMENT METHODOLOGY .......................................................... 10
   6.1  Site Traffic Management Plans (STMP’s) ................................................................. 10
       6.1.1  Existing Public Boat Ramp Access Road Widening ...................................... 10
       6.1.2  New Intersections on Foreshore Road ............................................................. 11
       6.1.3  Pedestrian Bridge Girder Placement .............................................................. 12
   6.2  Foreshore Road / Botany Road / Penrhyn Road Traffic Modelling ...................... 12
       6.2.1  Existing Conditions ........................................................................................ 12
       6.2.2  Proposed Conditions ...................................................................................... 14
       6.2.3  Intanal Model Results .................................................................................. 16
       6.2.4  Construction Vehicle Access Options ............................................................ 19
       6.2.5  Penrhyn Road Roundabout Interface ............................................................... 19
       6.2.6  Penrhyn Road Congestion Protocol ................................................................ 20
7  CONSULTATION ......................................................................................................... 21
   7.1  Stakeholders ......................................................................................................... 21
   7.2  Community Communication .................................................................................. 21
8  TRAFFIC OPERATIONS ............................................................................................ 22
   8.1  Incident Response .................................................................................................. 22
   8.2  Haul Routes, Access Routes and Clean Up .............................................................. 22
   8.3  Removal of Existing Pavements ............................................................................ 24
   8.4  Inspections ............................................................................................................ 24
   8.5  Maintenance ......................................................................................................... 24
9  TEMPORARY SIGNAGE ........................................................................................... 25
9.1 Variable Message Signs ................................................................. 25
9.2 Regulatory Signage ................................................................. 25
9.3 Directional Signage ................................................................. 25
9.4 Information Signage ................................................................. 25

10 TRAFFIC DIVERSSIONS TO FACILITATE CONSTRUCTION .............. 26
   10.1 Traffic Staging ................................................................. 26
   10.2 Temporary Roadways ................................................................. 26
   10.3 Traffic Control Plans ................................................................. 26
   10.4 Vehicle Management Plans ................................................................. 26
   10.5 Road Occupancy Licences ................................................................. 26
   10.6 Unplanned Lane Closures ................................................................. 26
   10.7 Traffic Controllers ................................................................. 27

11 SAFETY ....................................................................................... 28
   11.1 Auditing .................................................................................. 28
   11.2 Incidents .................................................................................. 28

12 REPORTING .................................................................................. 29
   12.1 Reporting to SPC .................................................................. 29

Appendix A – Site Compound Layout
Appendix B – Port Traffic Handbook
Appendix C – Construction Material and Truck Volumes
Appendix D – Penrhyn Road Congestion Management Protocol
Appendix E – STMP Concept TCP’s and Proposed road works staging plans
Appendix F – Draft TMP and TCP shows the proposed Compound ingress/egress point off Foreshore Rd,
1 INTRODUCTION

This Plan identifies the traffic management requirements of the Project and describes the general approach and procedures to be adopted to comply with these documents.

The traffic will be managed as outlined in Section 2.11 of the Project Deed that states:

- The Contractor is responsible for the management, direction, and protection of all road and waterborne traffic in any way affected by the work.

Also, the traffic must be managed to ensure:

- The continuous, safe and efficient movement of traffic for both the public and workers.
- The capacity of the Local Roads is maintained,
- Delays and disruptions are kept to a minimum.

The following diagram shows the levels of TMP’s for the project:

![Diagram of TMP levels](image)

This Project Traffic Management Plan contains the guidelines, general requirements and procedures to be used when activities or areas of work have a potential to impact on the highway and local traffic.

Individual Site Traffic Management Plans (STMP’s) are developed for specific areas of work or activities that are considered to impact in some way on Foreshore Road and local traffic. STMP’s describe in detail the area of work or activity, the extent of the expected traffic impact, and the management and responsibility measures to be implemented.

Traffic Control Plans (TCP’s) are included in the STMP’s and identify specific traffic control measures to be implemented for each STMP. STMP’s and TCP’s describe such items as temporary signage requirements, traffic barrier requirements and placement, traffic control crew requirements, delineation devices, ROL applications, temporary speed zones, etc which must be in place for the duration of the activity or work area impact.

The individual STMP’s will be designed to the criteria as outlined in section 8.17 of the Project Scope and Technical Requirements (PSTR) including Specification DCM G10. The STMP’s will be approved by the relevant authority before works commence.

The individual STMP’s will be designed in association with the Construction, Environmental and Quality Plans, and any other plans as required. The individual STMP’s will also address, as required, any safety issues (for Port users, construction workers and public), traffic and delay management issues, construction traffic routes and temporary lane widths.

Section 6.1 outlines the exiting programmed STMP’s.
2 SCOPE

This Project Traffic Management Plan applies to all parts of the Construction of the Works.

Roads affected include:

- Foreshore Road
- Botany Road
- Penrhyn Road
- Inter-terminal Access Road
- Local Access Roads.

The construction area should not directly affect the area within the Port except for a small area where the new expansion ties into the existing pier. Access to the construction compound will be via Foreshore Road, Penrhyn Road and the public boat ramp access road.

All construction vehicles entering and exiting the site shall be governed by the requirements of this Project TMP and corresponding STMP’s for each specific work site.

The construction compound will be set up between the public access boat ramp road and the fence line delineating the northern boundary of the existing Port.

Access to the intersection works on Foreshore Road will be via gates through the barriers delineating the works area along Foreshore Road.

Individual STMP’s will outline the exact location of the works as required.

BHJDN acknowledges the risks and obligations as outlined under the project documents as outlined in Section 4 of this TMP.
3 RESPONSIBILITIES
The following lists the personal and responsibilities for the project as well as emergency contacts:

**Baulderstone Hornibrook**
- Project Director: Vince Newton
- Construction Manager: John Taylor
- Project Manager (Foreshore): Steve Glover
- Traffic Manager: Keith Varga
- Community Relations Coord.: Linda Coburn
- Safety Manager: Martin Carmody
- Traffic Engineer: Ian Veinot

**Sydney Ports Corporation**
- Special Projects Manager: Graeme Alley
- Manager Port Planning: Tony Navaratne
- Manager Port Traffic: Morgan Noon

**Bovis Lend Lease (SPC Representative)**
- Project Manager: Peter O’Leary

**Parson Brinckerhoff (Project Verifier)**
- Project Manager: Tony Stein

**Emergency Services**
- Police: Botany Station 02 8338 7399 (000 Emergency)
- Ambulance: General Enquiries 13 1233 (000 Emergency)
- Fire: Botany Station 02 9666 5440 (000 Emergency)

**Other Services**
- RTA Project Manager: Jim Campbell
- RTA TMC: Traffic Management 13 1700 (Incident Reporting)
- Botany Council: General Enquiries 02 9366 3666, Emergency 02 9667 4799
- Sydney Water: Emergency Service & Repairs 13 2090
- Integral Energy: Emergency Response 13 1003
- AGL: Gas Emergency 13 1909
- Telstra: General Enquiries 13 2000
- Caltex: Botany Terminal 02 9667 4141, Emergency 1800 033 111
  - Patrick Terminal 02 9394 0000
- Towing Service: Combined Towing 02 9319 3434 (24 Hour)
  - Fleet Towing 02 9608 3444 (24 Hour, Heavy Vehicle)
4 REFERENCES

The company’s obligations under the deed with respect to traffic and transport management are set out in the following:

- Project Deed Clauses 2.1(d) (ii) and (vii), 2.11, 3.12(a)
- Exhibit K of the Deed - WAD
- Project Scope and Technical Requirements (PSTR) Section 8.17
- SPC Specification DCM G10

BHJDN acknowledges the risks and obligations as outlined in the documents above. The details regarding general traffic management topics are discussed in this TMP whereas the specific details will be covered in the STMP's.
5 PERFORMANCE REQUIREMENTS

5.1 General
The roads directly affected by the construction of the Port Botany Expansion Project include Foreshore Road, Penrhyne Road and the public Boat Ramp Access road. In general, the capacity of, or the level of service, of any road shall not be reduced as outlined in the Traffic Modelling section 6.2.

The existing number of lanes and shoulders will be maintained and any reduction for the purpose of construction staging will be temporary and kept to a minimum. The details of any new road alignment will be outlined in the STMP's.

5.2 Overall Strategy for achieving the Specified Requirements
- Design the works to ensure that the current number of lanes exists at all times along Foreshore Road and all associated local roads. Reduce speed limit on Foreshore Road, re-position line-marking by narrowing shoulders. Place concrete Type F barriers with appropriate end treatments to protect workforce, and create safe access and egress to work areas.
- Minimise lane closures in both number and duration.
- Minimise driver confusion.
- Provide safe and accessible construction areas.
- Schedule the works to exclude lane closures during Public Holiday Weekends and School Holidays and minimise closures during daylight hours.
- Schedule the work to minimise the duration of shoulder closures for tie-ins to existing pavements.
- Minimise disturbance and inconvenience to existing Port Operations while accessing the construction site.

5.3 Specific Requirements

5.3.1 Speed Limits
The Foreshore Road speed limit will be reduced to 80kph as per the final design. The speed limit may be reduced temporarily during lane closures and this will be detailed within STMP’s / TCP’s as required. All speed changes or reductions will be in accordance with approved Road Occupancy Licences and Speed Zone Restrictions issues by RTA. The RTA will be provided 14 Days notice of any proposal to change the posted speed limit. Road users will be advised of any speed limit changes utilising VMS on and about Foreshore Road.

Temporary speed zoning changes shall be recorded for operational times of speed zone controls.

The requirements for signage shall be detailed within the nominated TCP. Notification shall be through the weekly road occupancy forecasts (ROF).

5.3.2 Work Site Delineation
Traffic barriers shall be used for the protection to workers and public during construction. Required traffic barriers shall be nominated within the STMP / TCP including location and type.

Traffic barrier types shall be either;
- Triton TL-2 water filled barriers
- Triton TL-3 water filled barriers
- Type F concrete barriers

Lane closures shall be by the use of bollards, cones, and barrier boards as required.
5.3.3 Vehicles, Cyclists & Pedestrians
Access will be maintained for public traffic, cyclists and pedestrians. STMP’s will outline any signage or delineation required for specific areas of the work.

Site investigations show that the pedestrian and cyclist volumes are low at the Foreshore Road / Penrhyn Road intersection.

5.3.4 Special Events
Whilst it is not envisaged that any special event will affect the construction activities, provision for any such event will be detailed within Traffic Management Plans detailed for the event. The TMP will cover any systems, processes (specific TCP’s) and personnel required for the undertaken and implementation for the special event.

Special Events organised by SPC, such as emergency exercises, will be coordinated with the construction works.

World Youth is scheduled to conclude on 20 July 08. Whilst BH-JDN does not propose impacting on Foreshore Road prior to this date BH-JDN recognises that RTA may impose restrictions owing to significant events such as this that may impact the State Road network.

5.3.5 Public Transport
There are currently 3 bus services that use Botany Road. The routes are 309, 391 and L09. All the routes travel east or westbound on Botany Road, east of Foreshore Road, then north or southbound on Botany Road through the Foreshore Road / Botany Road intersection.

As the capacity of the intersection is not expected to change there should be no major impact on bus services.
6 TRAFFIC MANAGEMENT METHODOLOGY

6.1 Site Traffic Management Plans (STMP’s)

STMP’s will outline in detail the requirements for specific works, and will include the Traffic Control Plans required for that work. STMP’s will be developed as required and when design details for road adjustments are available.

STMP’s will be developed for the following as a minimum:

- Existing public boat ramp access road widening
- Each of the new intersections on Foreshore Road
- Pedestrian bridge girder placement
- Compound ingress/egress point of Foreshore Road

Sections 6.1.1, 6.1.2 and 6.1.3 outline the programmed STMP’s to date.

The STMP’s will be submitted for approval prior to any construction on site.

Appendix E shows the concept TCP’s for the corresponding STMP’s, and also shows the proposed road works staging plans. These plans will be further developed as construction methodology and design plans are finalised.

Appendix F shows the Draft TMP and TCP for the Proposed Compound ingress/egress point off Foreshore Rd,

6.1.1 Existing Public Boat Ramp Access Road Widening

The main works compound will be set up within the existing public boat ramp area as shown on the attached sketch 9T602-GE-SK-001 in Appendix A. Approximately 100 car parking spaces will be maintained for public vehicles and trailers and access to the boat ramp will be maintained at all times.

The work is scheduled for 18/5-20/6/08.

Access to the works compound will be via Foreshore Road, Penrhyn Road and the public boat ramp access road.

The existing public boat ramp access road will be widened to accommodate the project site offices and parking spaces.

During construction hours for the widening and line marking process, the existing road will be reduced to one lane; however access will be maintained to the existing boat ramp via traffic controllers. Outside of construction hours the roadway will be returned to 2 lanes.

Appendix E shows the concept TCP for the Public Boat ramp road widening works.

The principal issues to be addressed in the preparation and execution of the detailed STMP for the existing public boat ramp access road widening are as follows:

- maintenance to the required number of car and trailer spaces,
- avoidance of queuing into Penrhyn Road and roundabout,
- control of trucks seeking to enter and queue in the existing car park,
6.1.2 New Intersections on Foreshore Road

Throughout the construction of the Port Botany Expansion Project, it will be necessary to conduct works in close proximity to Foreshore Road for the new intersection works.

There will be 3 new intersections constructed along Foreshore Road. Two of the intersections will be signalised and the third intersection will be left-in / left-out arrangement.

One of the signalised intersections will lead to the new terminal access road and the other signalised intersection will lead to the new public boat ramp. The un-signalised intersection leads to the Mill Stream lookout car park.

The existing number of traffic lanes will be maintained by re-linemarking Foreshore Road to delineate the work site during night time work hours.

These works are scheduled as follows:

<table>
<thead>
<tr>
<th>Works</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prep works</td>
<td>7/8/08 to 29/8/08</td>
</tr>
<tr>
<td>Shift existing traffic lanes</td>
<td>29/8/08</td>
</tr>
<tr>
<td>Median works</td>
<td>30/8/08 to 23/10/08</td>
</tr>
<tr>
<td>Shift eastbound traffic lanes</td>
<td>24/10/08</td>
</tr>
<tr>
<td>Shoulder works</td>
<td>25/10/08 to 28/2/09</td>
</tr>
</tbody>
</table>

Appendix E shows the concept TCP for the stages of shifting the Foreshore Road lanes to accommodate the works.

The principal issues to be addressed in the preparation and execution of the detailed STMP for the new intersections on Foreshore Road are as follows:

- Maintenance of the current number of lanes exists at all times along Foreshore Road.
- Minimising reduction of speed limits on Foreshore Road.
- Maintenance of lane widths
- Placement of concrete Type F barriers with appropriate end treatments to protect workforce, and create safe access and egress to work areas. Type F barriers will be placed to achieve the minimum required offsets from the traffic lane and edge lines.
- Minimising short term lane closures in both number and duration. To be scheduled outside of peak hours. All lane closures or lane reconfigurations will be in accordance with RTA issued ROL’s.
- Scheduling the works to exclude lane closures during Public Holiday Weekends and School Holidays and minimise closures during daylight hours
- Minimising driver confusion be employing signage and VMS’s
- Providing safe and accessible construction areas for construction deliveries and workforce
- Scheduling of the work to minimise the duration of shoulder closures for tie-ins to existing pavements.
- Minimising disturbance and inconvenience to existing Port Operations.
- Communication with beach users and truck companies regarding shoulder closures
6.1.3 Pedestrian Bridge Girder Placement

The columns for the new pedestrian bridge over Foreshore Road will be completed before the main sections of the bridge are lifted into place.

The girders are scheduled to be placed between 3/11/09 and 6/11/09 at night.

During the girder placement, traffic will be managed by contra-flowing the lanes on the opposite side of the road of where the works are taking place.

Appendix E shows the concept TCP for the stages of contra-flowing the traffic during the girder placement.

The principal issues to be addressed in the preparation and execution of the detailed STMP for the pedestrian bridge girder placement are as follows:

- Temporary speed reduction to effect contra flow,
- Truck swept paths in designing median crossovers
- Placement of concrete Type F barriers with appropriate end treatments to protect workforce, and create safe access and egress to work areas
- Minimising driver confusion be employing signage and VMS's
- Advance warnings to motorists to avoid Foreshore Road if possible to avoid potential delays,
- Minimising disturbance and inconvenience to existing Port Operations.

6.2 Foreshore Road / Botany Road / Penrhyn Road Traffic Modelling

Traffic modelling on the existing Foreshore Road / Botany Road / Penrhyn Road intersection was conducted to determine existing and expected level of service during the works.

6.2.1 Existing Conditions

The Foreshore Road / Botany Road / Penrhyn Road intersection was modelled using 'Intanal’ to determine the existing and expected Level of Service (LOS), Degree of Saturation (DoS) and Average Vehicle Delay (AVD) of the intersection.

SCATS data was initially used from the RTA November 2007 counts, however manual counts (February 2008) were taken to validate the SCATS data, and also to record the volumes at the Penrhyn Road / Inter-Terminal Access roundabout.

The SCATS data is consistent with the manual counts and the total intersection volumes are shown below:

15 Nov. 2007 SCATS: AM peak (0700-0800) 4210 vph

Although typically traffic volumes are higher in March and November of any year, the manual volumes recorded in February 2008 are higher than the SCATS data from November 2007, and these volumes are used for the modelling.

The manual count volumes include the percentage of heavy vehicles and is represented in the model.

Seasonal variation of trucks entering the port was provided by Sydney Port Corporation to determine if seasonal variation was an issue at the intersection.

The seasonal peak of trucks entering the port changed from 2006 to 2007. During 2006 the seasonal low was in February and April (7.2% each) with the seasonal peak in December (10%).

In 2007 the seasonal low period was in April (7.4%) with the seasonal peak in November (9.6%).

The percentages show that not only has the seasonal peak shifted from December to November, but the difference between the high and low has decreased by about 0.4%. This suggests that the trucks entering the Port are more evenly distributed throughout the year.

As the busiest time for trucks entering the port was in November 2007, but the manual counts in February 2008 were slightly higher than the November 2007 SCATS counts, the February counts should represent the highest intersection volumes throughout the year for overall vehicles passing through the intersection.

Therefore the February 2008 manual counts are used for the modelling data and are shown in the following diagram.

Existing Foreshore Road / Penrhyn Road Volumes, AM PEAK (vph, 0745-0845) Recorded 6/2/08.
As the SCATS and manual count data is similar, the SCATS PM peak data is used for the PM peak modelling. The PM peak volumes are shown in the following diagram.

**6.2.2 Proposed Conditions**

Construction vehicle volumes are estimated to be approximately 4 trucks per hour entering the compound with peak volumes estimated at 10 trucks per hour. A worse case scenario of 25 trucks per hour is used for the modelling, however it will be rare to have this many vehicles arrive on site every hour of the working shift. Appendix ‘C’ provides details of the estimated construction truck volumes for the duration of the project.

Although there are 178 staff parking spaces within the construction compound area, for modelling purposes, 60 vehicles an hour is used to represent staff arriving on site in the morning. This should be a reasonable estimate as the majority of staff will be arriving between 0600 and 0700 which is outside the morning peak for the intersection at 0745-0845.

The staff vehicles arriving is divided between the eastbound, southbound and westbound approach legs of the intersection, where as the 25 construction trucks are assumed to be entering via the eastbound right turn bay to Penrhyn Road.
For the PM peak, the 60 vehicles an hour was also used to exit Penrhyn Road and was divided as equally between the 3 legs of the intersection (westbound, northbound and eastbound).

Expected Foreshore Road / Penrhyn Road Volumes, AM PEAK (vph)
Expected Foreshore Road / Penrhyn Road Volumes, PM PEAK (vph)

6.2.3 Intanal Model Results

The model was run to determine the existing and expected LoS, DoS, and AVD of the intersection with the following results:

EXISTING CONDITIONS

<table>
<thead>
<tr>
<th></th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Service (LoS)</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Degree of Saturation (DoS)</td>
<td>0.83</td>
<td>0.77</td>
</tr>
<tr>
<td>Average Vehicle Delay</td>
<td>20.6 sec</td>
<td>18.7 sec</td>
</tr>
</tbody>
</table>
The existing LoS for the intersection is ‘B’, which is defined as the intersection operates with acceptable delays and spare capacity.

As the additional volumes are low, the LoS of the intersection does not change and there is only a slight increase in the DoS and AVD of 0.02 and 0.4sec respectively for the AM peak. For the PM peak both the LoS and DoS remain the same with only an AVD increase of 0.6sec.

Further to INTANAL modelling, signals that are co-ordinated, it is preferable to simulate their operation using the SCATES capacity assessment tool. SCATES is a proven advanced analytical software product that is used and accepted by the RTA.

SCATES analyses were performed on Foreshore Rd, Botany Rd with the intersections of Foreshore Rd/Botany Rd, TCS #1525 and Botany Rd/Beauchamp Rd, TCS # 1526.

The results are shown in the tables below.

### EXISTING CONDITIONS

<table>
<thead>
<tr>
<th>Intersection #</th>
<th>AM Peak</th>
<th>PM Peak</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Service (LoS)</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>Co-ordinated Degree of Saturation</td>
<td>0.91</td>
<td>0.50</td>
<td>0.91</td>
<td>0.53</td>
</tr>
<tr>
<td>Total Level of Service</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td>A</td>
</tr>
</tbody>
</table>

### PROPOSED CONDITIONS

<table>
<thead>
<tr>
<th>Intersection #</th>
<th>AM Peak</th>
<th>PM Peak</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Service (LoS)</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>Co-ordinated Degree of Saturation</td>
<td>0.91</td>
<td>0.50</td>
<td>0.93</td>
<td>0.53</td>
</tr>
<tr>
<td>Total Level of Service</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
</tbody>
</table>
These findings are similar to and consistent with the previous SCATS analyses conducted for the EIS report. Abstract of the result are shown in a table below.

The approved EIS report indicates that no roadworks or modifications are required at the intersection of Foreshore Rd/Botany Rd in its ultimate layout when the project is completed.

Based on the modelling, no major impacts are expected on the intersections because of the relatively low proposed construction vehicle volumes.
6.2.4 Construction Vehicle Access Options

The main construction compound will be set up gradually such that construction vehicle volumes will start low and gradually grow. This will give time to access the intersection capability and propose any changes if required. During existing congestion issues due to port trucks, Penrhyn Road will be managed by the protocol as outlined in Appendix ‘D’ and explained further in section 6.2.5. No changes are expected to be required at any of the existing intersections as a result of the construction.

An alternate route for passenger construction vehicles via Botany Road, Bumborah Point Road, Simblist Road, Friendship Road, and Inter-Terminal Access Road. This route could be used to reduce the volumes on the Foreshore Road / Penrhyn Road intersection, however it will only be introduced if required and no heavy construction vehicles are permitted via the Inter-Terminal Access Road.

6.2.5 Penrhyn Road Roundabout Interface

Access to the main construction compound is via Foreshore Road and the roundabout at the Penrhyn Road / Boat Ramp access Road.

The public boat ramp car park is sometimes used to store or turn waiting port trucks around, however this area will not be available during the works due to the layout of the compound.

Currently the queues are managed by Patrick’s with traffic controllers located within the port to control the waiting trucks. Traffic controllers are stationed at the Penrhyn Road roundabout should the queue extend this far, and between the roundabout and Foreshore Road if required.

Patrick’s can also reschedule heavy vehicles if required until the queues have cleared.

It is expected that Patrick’s will continue to manage the roundabout area as required such that access is provided the Port facilities. The protocol for managing the congestion at the Penrhyn Road roundabout is outlined in Appendix ‘D’.

BHJDN acknowledges the risks, obligations and responsibilities as noted in the documents listed under Section 4 of this TMP. BHJDN endeavour to minimise the disturbance to traffic by taking the following measures:

- Traffic modelling of the Foreshore Rd / Penrhyn Rd intersection to ensure the existing intersection can accommodate the additional construction vehicle volumes.
- Use of an on-site concrete batch plant to reduce the number of construction vehicles accessing the site.
- Schedule day time deliveries to avoid construction vehicle bunching.
- Schedule day time deliveries during out of peak hours when practical.
- Schedule major deliveries during night time hours when possible. (Subject to approval)
- Ensure construction vehicles queue and unload within the construction compound only.
- Ensure construction vehicles do not obstruct traffic flow on any of the adjacent roads including Foreshore Road and Penrhyn Road.
- Utilise the Foreshore Road compound and proposed Foreshore Road intersections, when possible, to reduced the traffic using Penrhyn Rd.
• Stockpile materials on site so that construction can continue without constant delivery vehicles accessing the site.

• Use fleet management companies for major deliveries so construction trucks can easily be managed should an incident occur.

• Hold weekly meetings with Patrick’s so major construction vehicle deliveries can be coordinated such that they will not conflict with peak port activity.

• Scheduling major activity (such as the Pedestrian girder lift) for night works only.

6.2.6 Penrhyn Road Congestion Protocol

If Penrhyn Rd (including the roundabout) becomes congested, the contingency plan to manage the congestion is outlined in the protocol in Appendix ‘D’
7 CONSULTATION

7.1 Stakeholders

The following stakeholders will be consulted for this Project TMP and when preparing the individual STMP’s:

- SPC
- Patrick
- RTA TMC
- Botany Council, Randwick Council, & SSROC
- NSW Police,

The Community Consultative Committee (CCC) has been consulted during the Plan Development stage and this plan will be submitted to the Director-General for approval prior to the commencement of the construction.

In addition to the above stakeholders, the following will be advised of the works or any major changes during the works:

- Cargolink
- Caltex
- SPC/ Pilots
- Switzer
- P&O
- Affected Adjacent Land Owners / Occupiers
- Boat ramp users
- Beach users

7.2 Community Communication

In addition to providing information through the CCC, any major works that impact the general public will be advertised via static signs, VMS’s, and the Sydney Port’s project website (www.sydneyports.com.au)

If deemed appropriate, newspaper and radio advertisements may also be used to advise the public of major works.

The project toll free phone number is also available to the public for additional inquiries. PH: (toll free) 1800 177 722
8 TRAFFIC OPERATIONS

8.1 Incident Response

Should an incident occur within the boundary of any area subject to a Traffic Control Plan, BH-JDN will assist the RTA TMC or Emergency Services as required.

The BH-JDN Superintendent is the person to contact in the case of an Emergency. That person will have sufficient access to labour, plant and materials as necessary to immediately repair, to a sufficient level of safety, the area subject to the Traffic Control Plan. Then within an acceptable minimum time, completely repair the area to the correct safety level.

Should a subcontractor’s work vehicle breakdown en route or within the compound, it is the subcontractor’s responsibility to arrange recovery. Should the breakdown cause congestion on the Boat Ramp Access Road or Penrhyn Road, the Emergency Contact within BH-JDN will be able to determine the level of assistance required.

Emergency Contact details are listed under Section 3.

8.2 Haul Routes, Access Routes and Clean Up

The majority of truck movements will be for the delivery of materials with only limited quantities of spoil being removed from the site. Appendix ‘C’ provides details of the estimated construction truck volumes for the duration of the project.

All trucks must enter the compound via Foreshore Road (and Penrhyn Road) from either the Southern Cross Drive, M5 East, or General Holmes Drive. The Port Traffic Handbook, showing the haul routes, is included in Appendix B.

There will be two construction compounds. Access to the main construction compound will be via the Penrhyn Road roundabout and the Public Boat Ramp Access Road. Access to the Foreshore Road construction compound will be via Foreshore Road.

Detailed vehicle management plans within the STMP’s will show the exact entry and exit points for works vehicles and the associated signage.

Entry and exit points will be positioned such that the impact on Foreshore Road and the Public Boat Ramp Access Road is limited. The concrete batching plant will be located on site which will further reduced the number of trucks on the local road network.

Trucks greater than 12.5m are not permitted on Botany Road, between Hale Street and Mill Pond Avenue, or on the Inter-Terminal Access Road.

Delivery times are restricted to site working times which are Monday – Friday 0700-1800 and Saturday 0800-1300. Deliveries outside normal working hours will be by special permit only. Deliveries of large quantities of materials will be coordinated to ensure minimal impact on Foreshore and Penrhyn Road.

Vehicle wash-down facilities will be provided as required and any material deposited on local roads will be removed within a reasonable time.

The required haul routes are showed in the following plans.
General Location Plan:

Site Location Plan:
8.3 Removal of Existing Pavements

If and where the Foreshore Road is deviated to a temporary pavement, the original pavement will not be removed for a period of at least 2 days to ensure the temporary pavement meets the design requirements.

8.4 Inspections

BH-JDN will inspect daily the condition of the temporary pavement, signage, barriers and delineation devices and the safety of any area subject to a Traffic Control Plan. These inspections will be inline with the requirement of the Traffic Control at Worksites Manual. The specific requirements have been covered within procedure PSP.081 - Inspection and Control of Traffic Management. Rectifications will be addressed as required, and as reasonably practical, depending on the nature of the issue.

8.5 Maintenance

BH-JDN will maintain all traffic control devices and other works provided for traffic control during the construction phase of works.

BH-JDN will provide mobile phone numbers to the SPC and RTA of personnel available during out-of-hours periods for adjustments or repairs to traffic controls or devices. Those numbers detailed within this plan are included within that listing.

During the daily and weekly inspections of traffic control devices, a listing of repairs required will be detailed to the team leader for rectification if needed. Changes to traffic devices due to traffic accidents or incidents will be managed by the supervisor.
9 TEMPORARY SIGNAGE

9.1 Variable Message Signs

VMS signs will be used at specified locations or other nominated locations as outlined in the STMP’s. The messages will be approved by the RTA for public roads.

The location and messages of VMS’s located on SPC roads will be approved by SPC.

9.2 Regulatory Signage

Where a Traffic Control Plan, either major or minor, requires a change in the posted speed limit, a formal direction from the RTA is required (including restoring the existing speed limit on completion). This will be requested as part of the Road Occupancy Licence application submitted to the RTA.

9.3 Directional Signage

Changes to directional signage will be shown on each Traffic Control Plan. The detailed signpost layout plans are within the construction drawings for TCP’s (see attachment B). These detail the signage layout, road markings, temporary traffic controls and barrier systems in place during construction.

9.4 Information Signage

The BH-JDN Community Relations Manager in conjunction with the SPC and RTA will manage information signage.
10 TRAFFIC DIVERSIONS TO FACILITATE CONSTRUCTION

10.1 Traffic Staging
Traffic diversions or traffic switches are required to construct the Port Botany Expansion. All temporary diversions and traffic switches in accordance with the Road Design Guide and will be approved by the RTA as part of the STMP’s.

Construction staging along Foreshore Road may result in the lanes being shifted onto the existing shoulders or temporary pavements. The lateral shifts will only require a minimal road geometry change.

Access for all port vehicles will be maintained during all stages of the works unless specifically agreed with SPC.

10.2 Temporary Roadways
Temporary roadway widening may be required to undertake the construction particularly when interfacing with the existing Foreshore Drive. Detailed design drawings of the traffic control plans will be part of the STMP’s.

Any further requirements will be addressed through consultation with the designer via the RFI process and the development and review of the design drawings through BHJDN, SPC and RTA.

10.3 Traffic Control Plans
A Traffic Control Plan, as part of the STMP’s, will be prepared for each diversion or stage in accordance with the requirements of the Traffic Control at Worksite Manual, DCM G10 and associated Australian Standards and submitted to SPC and RTA for approval at least 10 working days prior to start of works.

10.4 Vehicle Management Plans
A Vehicle Management Plan (VMP) will be prepared for vehicle usage within the work zone covering the construction vehicles movement. The purpose of a vehicle movement plan is to detail the measures to be implemented for the safe management of construction vehicle movements within the construction site. The VMP is intended to cover vehicle movements on site and access to and from site.

10.5 Road Occupancy Licences
A number of the diversions or stages will require closing of shoulders and lanes on either the existing, temporary or new pavements of the Foreshore Road. Road occupancy licences will be obtained for each type of construction work involving closures. Several Traffic Management Plans may operate under the same road occupancy licence. This will be noted in the submission of the Traffic Management Plan.

10.6 Unplanned Lane Closures
Any unplanned closure of a lane or a restriction to traffic flow occurs BH-JDN will notify the RTA TMC and SPC Representative immediately, detailing the reason for the closure and the schedule for re-opening of the road to traffic.

The RTA TMC, Council, SPC Representative or the NSW Police Service may at any time instruct BH-JDN to re-open any traffic lane or shoulder to traffic without delay, whether or not closed -from prior arrangement.
10.7 Traffic Controllers

Traffic Controllers will be trained and inducted in accordance with the requirements of the Project OHS&R Plan and the Project Training Plan and will comply with the requirements of the *Traffic Control at Worksite Manual*.
11 SAFETY

11.1 Auditing

All traffic diversions and staging will be subject to road safety audit prior to opening.

Any deficiencies or inconsistencies identified in the traffic management safety audits will be rectified as soon as practical and without undue delay.

The specific requirements for safety inspection and audits will meet with the requirements of the Traffic Control at Worksite Manual – clause 2.5 and appendix E.

Traffic audits will be undertaken at a minimum frequency of 1 per month, and after every major traffic change. Reporting will be to the format from the Traffic Control at Worksite Manual and procedure PSP.081 - Inspection and Control of Traffic Management and uploaded into the web based document management system on completion.

11.2 Incidents

If a traffic accident occurs within the project construction works zone or any other location affected by the works, the supervisor/engineer will undertake a ‘Traffic Accident Report’ as per procedure PSP.081 - Inspection and Control of Traffic Management. This will include recording the TCP in place at the accident zone, traffic control devices and location including photograph evidence of the signage and accident. The record will be maintained and reported to the SPC within 2 days of the accident.

Actions arising from the investigation of the accident will be actioned through the report and immediately corrected for prevention of further incidence. Traffic Control at Worksite Manual – clause 6.1.3 shall be used a guidance for the undertaking of the investigation.

If the accident is not within a TCP zone or associated with the BH-JDN works, an Incident/Near Miss report will be completed and inputted through the safety system.

Serious incidence where it involved BH-JDN or any subcontractor where;

- A fatality has occurred,
- Serious injury or illness,
- Immediate threat to life or major damage to plant, equipment or property,

requires that NSW WorkCover be notified within statutory required periods. The area where the incident occurred shall not be disturbed and be barricaded for the undertaking of an investigation for up to 36 hours, although the area must be made safe to prevent further incidence.
12 REPORTING

12.1 Reporting to SPC

Incidents that occur within an area subject to a Traffic Management Plan and/or Traffic Control Plan will be immediately reported to the SPC Representative and RTA as required.

Road Occupancy Forecasts are to be submitted by not later than Thursday 3pm for the following weeks work.

Road Occupancy Applications are to be submitted prior to undertaking any works. Submission of TMP, TCP and any further information shall be submitted 14 days prior to works being progressed.

All records shall be recorded and submitted through the web based document management system “Project Centre”.
Appendix A – Preliminary Site Compound Layout
NOTE
SHOWING EXISTING SERVICES ONLY
Appendix B – Port Traffic Handbook
Port Botany Expansion - Port Traffic Hand Book

General:
The Port Botany Expansion project involves expanding the existing container pier in Port Botany, Sydney. The works require large volumes of materials delivered to the site throughout the project by heavy vehicles.

Heavy vehicle access to the site is restricted to certain roads due to size and weight of the vehicles. Drivers are to obey all road rules both on public roads and within the construction compound.

Site Access:
HEAVY VEHICLE access to the construction compound is from Foreshore Road / Penrhyn Road, via the M5 East, General Holmes Drive or Southern Cross Drive.

Vehicles longer than 12.5m are not permitted to use Botany Road between Hale St and Mill Pond Avenue. There is NO HEAVY VEHICLE ACCESS to the construction compound via the Inter-Terminal Access Road.

Access to the main construction compound is via Foreshore Road eastbound, Penrhyn Road roundabout and the Public Boat Ramp Access Road.

Access to the Foreshore Road construction compound is via Foreshore Road eastbound, Penrhyn Road roundabout and Foreshore Road westbound.

Access Hours:
Site access is Monday – Friday 0700-1800 and Saturday 0800-1300. After hours access is by permit only.

Amenities:
Amenities and refuse disposal are available on the construction site during working hours.

Emergency Phone Numbers

<table>
<thead>
<tr>
<th>Service</th>
<th>Location</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police</td>
<td>Botany Station</td>
<td>02 8338 7399 (000 Emergency)</td>
</tr>
<tr>
<td>Ambulance</td>
<td>General Enquiries</td>
<td>13 1233 (000 Emergency)</td>
</tr>
<tr>
<td>Fire</td>
<td>Botany Station</td>
<td>02 9666 5440 (000 Emergency)</td>
</tr>
<tr>
<td>Towing Service</td>
<td>Combined Towing</td>
<td>02 9319 3434 (24 Hour)</td>
</tr>
<tr>
<td></td>
<td>Fleet Towing</td>
<td>02 9608 3444 (24 Hour, Heavy Vehicle)</td>
</tr>
</tbody>
</table>

Plans:
Site location plans are shown on the following page.
General Location Plan:

Site Location Plan:
Appendix C – Construction Material and Truck Volumes
| Area                        | Unit   | Aug-08 | Sep-08 | Oct-08 | Nov-08 | Dec-08 | Jan-09 | Feb-09 | Mar-09 | Apr-09 | May-09 | Jun-09 | Jul-09 | Aug-09 | Sep-09 | Oct-09 | Nov-09 | Dec-09 | Jan-10 | Feb-10 | Mar-10 | Apr-10 | May-10 | Jun-10 | Jul-10 | Aug-10 |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Road stone                  | tons/month | 32000  | 32000  | 32000  | 2200   |
| Revetment Rock              | tons/month | 5300   | 11500  | 16300  | 33000  | 13000  | 3500   |
| Boat Ramp                   | tons/month | 9000   | 9600   |
| Millstream Groyne           | tons/month | 3300   | 14000  |
| Uwater revetment            | tons/month | 7000   | 7000   | 7000   | 2500   | 4100   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   |
| east berm                   | tons/month | 3400   | 3400   | 3400   | 3400   | 3400   | 7000   | 22700  | 22700  | 22700  | 22700  | 22700  | 22700  | 22700  | 22700  | 22700  | 22700  | 22700  | 22700  | 22700  | 22700  | 22700  | 22700  | 22700  |
| Countertop Bedding Rock     | tons/month | 400    | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   | 5200   |
| Countertop trench layer     | tons/month | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   | 3000   |
| Concrete Aggregates 20mm    | tons/month | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   | 2300   |
| Concrete Aggregates 10mm    | tons/month | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   | 2100   |
| Concrete Aggregates sand    | tons/month | 1600   | 1300   | 1200   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   | 1300   |
| Reinforcing Steel           | tons/month | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    | 800    |
| Road stone                  | Trucks/day | 64     | 64     | 64     | 64     | 64     | 4      |
| Revetment Rock              | Trucks/day | 13     | 23     | 33     | 66     | 26     | 7      |
| Boat Ramp                   | Trucks/day | 18     | 19     |
| Millstream Groyne           | Trucks/day | 7      | 28     |
| Uwater revetment            | Trucks/day | 14     | 14     | 14     | 14     | 14     | 5      |
| east berm                   | Trucks/day | 10     | 10     | 10     |
| flushing channel            | Trucks/day | 7      | 7      | 7      | 1      |
| inter terminal access       | Trucks/day | 45     | 45     | 45     | 45     |
| Countertop Bedding Rock     | Trucks/day | 1      | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     |
| Countertop trench layer     | Trucks/day | 6      | 10     | 10     | 10     | 10     |
| Concrete Aggregates 20mm    | Trucks/day | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      |
| Concrete Aggregates 10mm    | Trucks/day | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      | 5      |
| Concrete Aggregates sand    | Trucks/day | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      |
| Cement/Flyash              | Trucks/day | 4      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      |
| General Deliveries         | Trucks/day | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     |
| Reinforcing Steel          | Trucks/day | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
| Total Trucks/day           |         | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     | 76     |
| Total Trucks/hour          |         | 6      | 6      | 7      | 5      | 5      | 8      | 10     | 8      | 7      | 6      | 5      | 5      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 4      | 2      | 2      | 5      | 5      | 4      | 4      |
Appendix D – Penrhyn Rd Congestion Management Protocol
General:

The Penrhyn Road congestion management plan is developed to manage Patrick’s Port traffic and BHJDN construction traffic during the Port Botany Expansion works.

The plan is based on the existing traffic management plan currently used by Patrick’s to manage congestion within the port, and on Penrhyn Road, when port activity becomes congested.

The plan is developed to manage the port, construction and public boating traffic at Penrhyn Road at times when the port facilities can not accommodate the port container traffic. The plan is not an emergency response plan.

Definitions:

“Normal” construction conditions are defined as when the port can accommodate the existing and arriving container trucks without the trucks queuing to the Penrhyn Road roundabout, and, access to the public boat ramp road for both the boat ramp and the construction site is maintained without delay.

“Congestion” is defined as when the port or Penrhyn Road, including the roundabout, can not operate normally because of the large amount of port container traffic.

The degree of congestion of when the protocol is to be activated is the responsibility of Patrick’s; however BHJDN can request Patrick’s to implement the protocol.

“Other’s” is defined as anyone other than Patrick’s or BHJDN staff who identifies the congestion. (I.e. Member of the SPC, Community, or truck driver etc)

“An issue that could cause immediate congestion” is something (i.e. computer crash, etc) that occurs within Patrick’s control.

Contact Details:

The contact details are listed below. Additional contacts are to be provided as required.

Bob Wyldman    BHJDN    0419 174 187

Michael Egan    Patrick    9394 0000
Appendix E – STMP Concept TCP’s and Proposed road works staging plans
FORESHORE ROAD LOOKING WEST

STAGE 1

STAGE 2

LEGEND
- EXISTING ROAD LAYOUT
- TEMPORARY PROPOSED LANE GRID
- EXISTING LANE SYSTEM

DRG CHECK PRINT

APPROVED TO BE ISSUED FOR
SIGNED _____________________ DATE ____________________
Appendix F – Draft TMP and TCP for the proposed Compound ingress/egress point off Foreshore Rd,
Traffic Management Plan
Traffic Management arrangement for Environmental Works in the Penrhyn Estuary

DOCUMENT NO.: 9E700/TMP/003

<table>
<thead>
<tr>
<th>Revision #</th>
<th>Date</th>
<th>Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16.05.08</td>
<td>Initial Issue for SPC Approval</td>
</tr>
</tbody>
</table>

Prepared by: Mark Sabry
(Project Engineer)

Reviewed by: Keith Varga
(Traffic Manager)

Approved by: John Taylor
(Constructor Manager)

16/5/08
1.0 PURPOSE

The purpose of this Traffic Management Plan (TMP) is to detail the proposed traffic management measures to be implemented to provide delineation for plant and light vehicles accessing the Penrhyn Estuary work zone off Foreshore Road.

2.0 SCOPE

This Traffic Management Plan details the measures to be implemented to provide access and delineation along the shoulder at approximate chainage 2120 (MC00). The delineation will provide protection for drivers merging off Foreshore Road onto the road shoulder to access the Penrhyn Estuary work zone.

3.0 RESPONSIBILITIES

It is the responsibility of the BH Superintendent to ensure that these traffic management measures are disseminated, implemented and maintained in line with the principles prescribed in the Project, Occupational Health, Safety and Rehabilitation Management Plan. It is the responsibility of every person involved in the works to comply with the guidelines as set down in this plan.

4.0 REFERENCES

SPC Project Deed
RTA Specification DCMG10
Traffic Control at Work Sites Manual, September 2003
AS1742.3-2002 Traffic Control Devices for Works on Roads

5.0 IMPACT ON FORESHORE ROAD

The proposed reduced speed limits are: also refer to attachment 3 Speed Zone Authorisation Application:

- A 60 km/h work zone speed limit on Foreshore Road Westbound during daylight working hours at work zones identified on TCP.
- A 80 km/h speed limit outside working hours on Foreshore Road Westbound

There will be no lane closures as only the shoulder will be used for access in accordance with the attached TCP. A no stopping zone will be implemented in accordance with the attached TCP.

For the erection of signs, placing of triton water filled barriers and concrete barriers, RTA accredited traffic controls will be used where necessary to provide the traffic management procedures and devices to complete the works safely.
6.0 PROPOSED STRATEGY FOR TRAFFIC MANAGEMENT

6.1 Foreshore Road, Port Botany & Local Traffic

The initial works in the Penrhyn Estuary involves clearing a 10m corridor off Foreshore road in order to construct a temporary roosting area for shorebirds. To ensure the safety of delivery vehicles delivering plant and light vehicles entering and leaving the site, signs will be erected, triton barriers & concrete barriers will be installed. These traffic management measures will be implemented in accordance with the TCP contained in Attachment 1.

A Road Occupancy Licence (ROL) application has been submitted to the RTA for approval for the works, this application is contained in Attachment 2.

6.2 Traffic Controllers

RTA accredited Traffic Controllers will be responsible for, providing the traffic management procedures and devices as described in this Plan; including providing traffic control for the installation of the signs where necessary, triton barriers and concrete barriers as detailed in the TCP.

Contact details are as follows:

Traffic Control Crew and Bob Wyldman
TBA Baulderstone Hornibrook
(Phone): (Mobile): 0419 174 187
(Mobile):

Work Site Traffic Control Certificate No. TBA

Expiry date:

6.3 MINOR SIDE ROADS

A number of local access roads are within the general area, including Botany Road. It is not envisaged that the works will impact on the traffic flow on these local roads. Access to these side roads will be maintained at all times.
6.4 ACCESS TO LOCAL PROPERTIES

Property accesses will not be affected through the scope of this traffic management plan.

6.5 PEDESTRIANS & CYCLISTS

During the works construction vehicles will merge into the delineated area to access the work zone. Pedestrian access will be prohibited along the road shoulder around the access area, and a 100m no stopping zone west of the access area is proposed to ensure trucks can safely merge back onto Foreshore road west bound.

6.6 BUSES

A number of school and public buses run on the local roads within the general area. It is not envisaged that there will be any conflict between these routes. No changes are proposed to any bus stops as part of this traffic management plan.

6.7 COMMUNITY/MOTORIST NOTIFICATION

Advance warning signage shown in the Traffic Control Plans. Additionally signage will be provided in accordance with the attached TCP to provide early warning of trucks turning ahead. The proposed works will be placed on the project web site.

7.0 OHS&R

BH will assess the risk and will develop a Job Safety and Environmental Analysis (JSEA) prior to conducting any works associated with the identified hazard. All persons involved in the work will be inducted into the safe work method and JSEA.

8.0 CONTROL PLANS

Traffic Control Plans are included in Attachment 1.
9.0 REQUEST FOR SPEED LIMITS

The following requests for speed reduction have been submitted under separate cover; refer to attachment 3 Speed Zone Authorisation Application:

- A 60 km/h work zone speed limit on Foreshore Road Westbound during daylight working hours at work zones identified on TCP
- A 80 km/h speed limit outside working hours on Foreshore Road Westbound
Attachment 1

TCP
Attachment 2

ROL (Application)
ROAD OCCUPANCY LICENCE APPLICATION
NON-DEVELOPMENT & SPECIAL EVENT ACTIVITIES

Is this an extension of existing / previous licence? ☒ No ☐ Yes - Licence #:

Was this application entered on-line? ☒ No ☐ Yes - Application #:

Proponent Organisation: BAULDERSTONE HORNIBROOK
(BH)

Proponent Contact Name: Keith Varga

Phone: 0412 957 799

Fax: 9372 1511

Email: kwarga@bh.com.au

Subject Road: Foreshore Road

From (Cross Street): PENRHYN ROAD

To (Cross Street): 340 metres West of BOTANY ROAD

Suburb: BOTANY

Requested Start & End Dates: 21/5/08 - 27/6/08

Estimated Duration of Activities: 24/7

Requested Times: 24/7

For example Mon - Fri 1000 - 1500, Sat 0700 - 1300

Project: PORT BOTANY EXPANSION

Work Description for this Application: Set up 600m of barriers on shoulder to create entry/exit point to the beach

Current Speed Limit: 90 Km/h

Licence Type:
☐ Abnormal Load Movement
☐ Bridge
☐ Building Construction
☐ Building Work Zone
☐ Special Event
☐ Hoardings
☐ Hazard Reduction
☐ Utility Maintenance
☐ SRA Works
☐ Other:

Lane/s or Shoulder/s Closed:
☐ Median Shoulder
☐ Shoulder
☐ Lane 1 (kerb Lane/s)
☐ Lane 2 (next after kerb lane)
☐ Lane 3
☐ Lane 4

Direction:
☐ All directions
☐ East bound
☒ West bound

Flow Management:
☐ Standard lane merge
☐ Contra Flow
☐ Stop / Slow Control

Miscellaneous:
☐ Turning Bay/s affected: ☒ Yes ☐ No

Speed reduction?: ☐ Yes 70 km/h (Apply for SZA)
☐ No

Community Notification:
☐ Newspaper
☐ VMS
☐ Letterbox drop

If this project is managed by the RTA, fill in the following:

RTA Branch: RTA Contact:

Please allow a minimum of 70 working days to process this application. Thereby apply for a Road Occupancy Licence:

Signature: Date: 7/5/08

Fax to the RTA office relevant to the location of the application. Refer to Explanatory Notes for fax numbers.

Catalogue No. 45062017 RTA Form No. 834 (20/11/2007) TMC-100106-F02
Attachment 3

Speed Zone Authorisation (Application)
## Speed Zone Authorisation Application

**Proponent Organisation:** Boulderstone Hornibrook (Port Botany Expansion Project)

**Proponent Contact Name:** Keith Varga

**Phone:** 02 8907 3931  
**Mobile Number:** 0412 957799

**Fax:** 02 9372 1511  
**E-mail Address:** kvarga@bh.com.au

**Subject Road Name:** Foreshore Rd  
**UBD Map Reference:**

**Suburb:** Botany  
**Council:** Botany

**From (Cross Street):** Botany Rd  
**To (Cross Street):** 500m west of Botany Rd  
**Reference to nearest cross street:**

**Requested Times:**

- **Direction:**
  - All directions
  - East and West bound
  - North and South bound
  - South bound

- **Distance:**

**Existing Speed Limit:** 90

**Requested Speed Limit:** 60

**Proposed Commencement Date:** 20 May 08  
**Installation of signs:**

**Proposed Completion Date:** 20 Sep 08  
**Removal of signs:**

**Traffic Control Plan ID:** PBE/TMP-002  
**Previous TMC Road Occ Approval No:** awaiting ROL approval

**Reason for SZA:** Implementing Work site entry/exit point off Foreshore Rd

**Speed Limit Sign Location Plan Name:** Fore2

**Comments:**

---

**I hereby apply for permission to restrict speed at the location described herein.**

**Signature:** [Signature]  
**Date:** 12/5/08

---

**PLEASE ALLOW 10 WORKING DAYS TO PROCESS THIS APPLICATION - Fax to:**

- **Sydney:** 8396 1530
- **Southern Region (Wollongong):** 4221 2777
- **South Wester Region (Wagga):** 6938 1184
- **Central Coast (Gosford):** 4379 7031
- **Hunter Region (Newcastle):** 4924 0347
- **North Region (Grafton):** 6640 1304
- **Western Region (Parkes):** 6861 1414

---

**TMC-SCP-009184-F01**

Catalogue No. 45062706, RTA Form No. 833 (08/2007)
<table>
<thead>
<tr>
<th>Date &amp; /or reference</th>
<th>Item, section, reference or page number</th>
<th>Comment</th>
<th>BH-JDN Response</th>
<th>Status as of 10/5/08</th>
</tr>
</thead>
<tbody>
<tr>
<td>15/4/08</td>
<td>SSROC</td>
<td>BH-JDN received a call from SSROC on 15/4/08 advising that they did not have the resources to provide a response by the 22/4/08. SSRC was advised that both Botany and Randwick Councils have received a copy for comments and in accordance with MCoA, no other Councils listed for individual consultation. SSROC advised that they would be forwarding a copy to both Marrickville and Rockdale Councils.</td>
<td>Noted</td>
<td></td>
</tr>
<tr>
<td>15 April 2008</td>
<td>Minutes 4.2</td>
<td>How were the figures in peak periods arrived at during modelling? Doubt about the estimations of time for traffic passing through the intersection at Botany Road and Foreshore Drive as there were often major delays for traffic before they reached the intersection (up to 20 minutes)</td>
<td>The intersection was monitored and counts taken for 4 hours in the morning and 4 hours in the afternoon, the peak 1 hour in the am and pm is then selected and those volumes modelled accordingly. This is a universally accepted method of modelling used by RTA and was used in EIS modelling.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>JB accepted that trucks from the construction were unlikely to have a major impact, but the existing arrangements were not working well.</td>
<td>VN further noted that the modelling relates to intersection capacity. This may be affected at particular times by one incident e.g. a truck queuing across the intersection. We have to put in place protocols to ensure the existing situation is not made worse. We can stage deliveries so that trucks are not arriving during delays.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minutes 4.3</td>
<td>The presentation was too theoretical and had been hoping for more information on the effects on businesses in the area, increased traffic volumes, effects of road narrowing, impacts of reduced speed limits, impacts of an incident. Businesses in the area have trucks delivering from Port, some 24 hours a day. Was hoping to be able to report more concretely to businesses</td>
<td>Reported that the expectation of an average of 4 to 5 trucks per hour. We have modelled on an extra 25 trucks, the worst case scenario may be 10 an hour. It is critical to work with Patricks to manage the intersection. We are not allowed to change speed limits and lane widths in peak periods. The application for Road Occupancy License (ROL) must ensure minimal impacts and require RTA approval. We envisage only one week's work in the early hours of the morning where we have to apply to RTA for ROL. Appendix C spells out numbers of trucks and traffic volumes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>How will these trucks impact on other trucks. Request for summary of the TMP be provided</td>
<td>Problems generally occur because of trucks queuing across the roundabout. It is not a problem with physical infrastructure but it's use. Baulderstone Hornibrook can delay deliveries, or deliver in the off peak.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date &amp;/or reference</td>
<td>Item, section, reference or page number</td>
<td>Comment</td>
<td>BH-JDN Response</td>
<td>Status as of 19/5/08</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------------------</td>
<td>---------</td>
<td>-----------------</td>
<td>----------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Would there be an overall impact on trucks and traffic and expectations of delay.</td>
<td>The establishment of the concrete batching facility is to avoid problems of concrete trucks having to be at the site at certain times.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Summarised discussion that modelling indicated a relatively modest impact, and that there would be concentrated efforts to manage impacts around traffic congestion, and there will be specific management plans for specific works as they come on stream. However, if there is a summary of the implications of any of the plans which are presented from a community point of view.</td>
<td>There would be some impact with only one extra truck. In peak construction 120 trucks per day was expected. For a busy day at the Port we are talking about a 5% increase in traffic. Intersection modelling indicated a minor effect.</td>
<td></td>
</tr>
<tr>
<td>Minutes 4.4</td>
<td></td>
<td>Noted the emphasis on portside of the roundabout at Botany Road and Foreshore Drive and concerned about the other side. Will concrete trucks be brought into the site through local roads?</td>
<td>No trucks will be allowed on the other side of the intersection. All trucks would use General Homes Drive and Foreshore Drive. Batchimg of all cement would be done on site. There would be some concrete trucks entering only while setting up batching site.</td>
<td></td>
</tr>
<tr>
<td>Minutes 4.5</td>
<td></td>
<td>On paper the TMP looks good, but feels justice is not being done to the local residents. It is heavily loaded against the community. CCC members need access to independent consultants as having to advise on technical matters is a huge responsibility to be burdened with.</td>
<td>Time for comments on TMP closes at end of business Tuesday 22 April. A compilation of comments will then be sent to members.</td>
<td></td>
</tr>
<tr>
<td>Minutes 4.6</td>
<td></td>
<td>With the TMP a few days is not enough time to seek additional technical advice. Although specific plans are yet to be presented, Council would like time to allow the council traffic engineer to review</td>
<td>It will be possible for Councils to have more time to respond. Council review should be treated similarly to a state government agency review with respect to time allowances.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Are there penalties if traffic and noise are more than expected. Information regarding these issues is coming from group with vested interests i.e. BH-JDN. Complexities of plans (particularly noise &amp; traffic) need to be acknowledged.</td>
<td>All processes must go to the relevant state government agencies that review and sign off the proposals and can impose penalties for exceedences. Their experts look at impacts and whether these are deemed acceptable or otherwise by consent authorities. The CCC does not have to be responsible for these standards as members are not expected to have this level of expertise. The CCC looks at whether construction impacts pass the 'reasonable test'</td>
<td></td>
</tr>
<tr>
<td>Date &amp; reference</td>
<td>Item, section, reference or page number</td>
<td>Comment</td>
<td>BH-JDN Response</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------------------------------</td>
<td>---------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>for local communities and identify issues that might impact on local communities and interests. There is a project Environment Representative. And there are a range of checks and balances already in place. Council has a different role again where specific technical expertise can be accessed to consider issues of specific locality impacts. Councils may need more time to refer to council experts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Request that the environmental representative be invited to address the CCC and to explain their role and a diagram prepared indicating where expertise comes into the process.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minute 4.7</td>
<td>Indicated that the summary of comments from the CFEMP has been sent out, also comments on Dust Management and Waste Management Plans. Would CCC receive batches of technical or large plans at the same time. For the CCC do not have the technical expertise they still require the time to have a constructive input.</td>
<td>Agendas would need to be managed with this in mind.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minute 4.8</td>
<td>It was suggested that government agencies should be a the meetings, as with the Orica community group.</td>
<td>It is not a requirement of conditions of consent that the state agencies attend meetings. The community consultation team need to make sure comments from CCC go to the appropriate agencies and that their feedback where appropriate is passed back. Agency representatives could be invited through the chair to specific meetings.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minute 4.9</td>
<td>Does the Emergency Response Plan include a Hazard Risk Analysis. CCC would like to know what risks are likely. Tsunami alert report published in Sun Herald on April 13.</td>
<td>BH-JDN plan will be relation to construction emergencies, and links in with the existing Ports procedures plan. The plan is linked with the emergency agencies that then links with the community.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Emergency Plan needed to be looked at externally, it should go to Superintendent Ron Mason from LEO Con.</td>
<td>Risks and hazards are assessed again once the operation phase begins.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minute 4.1.0</td>
<td>It is not clear from TMP was the impact of traffic lane diversions, construction at boat ramp etc on parking along Foreshore Rd. Is there going to be parking on Foreshore Rd.</td>
<td>Parking will be permanently affected along Foreshore Road in areas of road widening and acceleration and deacceleration lane construction. Between Penrhyn Road and the New Boat ramp facility parking along the southern side of Foreshore Road will be prohibited for the duration of the Penrhyn</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Port Botany Expansion

<table>
<thead>
<tr>
<th>Date &amp; /or reference</th>
<th>Item, section, reference or page number</th>
<th>Comment</th>
<th>BH-JDN Response</th>
<th>Status as of 19/5/08</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.1.1</td>
<td>Has public transport been taken into consideration for employees.</td>
<td>Public transport is being investigated. Available bus routes along Botany Road will be promoted to site personnel.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.1.2</td>
<td>Questioned the mention in the TMP of 100 car parking spaces being maintained.</td>
<td>These would be for the public with separate parking for BH workers.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 April 2008 NH (CCC member)</td>
<td>Noted the irony of talking about 4 trucks an hour, compared with volume of traffic during the operation phase.</td>
<td>Noted, BHJDN construction traffic volumes significantly less than EIS projections for traffic when Project completed.</td>
<td></td>
</tr>
<tr>
<td>Item 5.2, pg 8</td>
<td><a href="https://example.com">6th dot point shoulder closures existing pavements. Question what pavements?</a></td>
<td>Foreshore Rd southern shoulder between Penrhyn Road and New Boat Ramp Facility will be closed for the duration of the Penrhyn Estuary and Foreshore Beach Enhancement works.</td>
<td>RTA, Police and BHJDN</td>
<td></td>
</tr>
<tr>
<td>Item 5.3, pg 8</td>
<td>Speed limits, who monitors this situation?</td>
<td>RTA, Police and BHJDN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 5.3.1, pg 8</td>
<td>Signage can cause accidents.</td>
<td>Noted, all signage deployed shall be reviewed and approved by RTA prior to its installation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 5.3.5</td>
<td>Special Events – Whilst it is not envisaged!!! Accidents do happen!</td>
<td>Noted, all STMP’s shall be reviewed and approved by RTA with due consideration by BHJDN and RTA of Special Event requirements. 5.3.4 refers to Special Event considerations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 5.3.5</td>
<td>Public Transport – Bus services using Botany Road. Route 310 omitted another instance of Ports people not recognising areas outside of its own.</td>
<td>Route 310 does not use Foreshore Rd nor Foreshore Rd/Botany Rd intersection. Bus Route 309 and L09 utilise Botany Road and Penrhyn Road Intersection. Neither bus uses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item, section, reference or page number</td>
<td>Comment</td>
<td>BH-JDN Response</td>
<td>Status as of 19/5/08</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>---------</td>
<td>----------------</td>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td>Item 6.1.1, pg 10</td>
<td>Does performance requirements interfere with Orica work on Foreshore Drive?</td>
<td>BH-JDN will not be undertaking work with in the median in locations where Orica are undertaking works. Minimal interface with Orica is anticipated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 6.1.2, pg 11</td>
<td>Traffic Management Mythology – Existing public boat ramp access road widening – What is being planned is a tremendous over use of this particular area? Is another example of BAD PLANNING.</td>
<td>BH-JDN are not responsible for overall planning nor Project Approvals</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Item 6.1.2, pg 11 | New intersections Foreshore Road is a disaster waiting to happen.  
- 2 reduction of speeds. Can cause problems  
- 4 Type F barriers. What is the cumulative effect with Orica barriers?  
- Employing signage too many sign are a drivers distraction.  
- 10 minimising disturbance, inconvenience to port operations. This is what it is all about to hell with the residents.  
- 11 Communication beach users and truck companies. What benefit is gained by users, what penalties for infringement of truckies. |  
- Intersections subject to Project Approvals.  
- RTA guidelines and direction to be followed regarding permanent and temporary speed restrictions.  
- Barriers to be installed in accordance with RTA guidelines and approved TCP. Minimum offsets from edge lines to be maintained. Negligible impact anticipated.  
- Signage to be kept to minimum in accordance with RTA requirements.  
- Contract requires BH-JDN minimise impact on existing Port Operations. Traffic planning will minimise impact on residents.  
- Impacts on beach users will be communicated through public notification processes. Penalising of truck drivers is not the responsibility of BH-JDN |  |
<p>| Item 6.1.3, pg 11 | 7 should be added deterrents for stone/rock throwing and immediate action to prevent and for punishment. | Pedestrian design subject to RTA guidelines. Guarding will be incorporated. |  |
| Item 6.2.2, pg 14 | Proposed conditions. Excess of truck arrivals &quot;rave happening&quot; but it can happen so prepare. 60 vehicles each hour (one a minute) staff arrivals. Once again Port is seen as an island. No indication of traffic. | Port Operations not subject to BH-JDN control. BH-JDN responsible for ensuring BH-JDN traffic does unacceptably impact on road users and residents. |  |
| Item 6.2.5, pg 17 | Use on all roads outside of mentioned port roads. Are traffic lights synchronised; set as to prevent queuing and congestion, accidents occur, all adding up to chaos everywhere. | RTA issue. RTA responsible for coordination of traffic signals. |  |
| Item 6.2.5, pg 17 | Patrick expected continue manage roundabout. What is contingency plan if Patrick does not manage. This management plan is one for disaster; it is planned as though, residents, other industries and business, other roads, suburbs peak | BH-JDN will delay BH-JDN trucks should Patricks cause congestion. Traffic modelling addresses cumulative impacts of additional traffic throughout the construction process. |  |</p>
<table>
<thead>
<tr>
<th>Date &amp; / or reference</th>
<th>Item, section, reference or page number</th>
<th>Comment</th>
<th>BH-JDN Response</th>
<th>Status as of 19/5/08</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 April 2008 – meeting/notes</td>
<td></td>
<td>hour, light synchronising are not worth consideration. The cumulative impact has not been addressed. Incident response, instantaneous response and not by answering machine.</td>
<td>BH-JDN will have response teams onsite throughout the construction process. Response will not be by answering machine.</td>
<td></td>
</tr>
<tr>
<td>24 April 2008  Letter from RTA</td>
<td></td>
<td>BH-JDN Traffic Manager met with Botany Highway Patrol key comments raised : • Basic project overview materials was given at the meeting</td>
<td>Consultation will continue through the construction process</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>RTA’s Transport Management Centre may provide additional requests and or comments based on new information as the project moves forward, and as issues are identified.</td>
<td>Noted. New requirements will be addressed in each STMP as they are submitted</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The document is not considered a TMP, rather a higher level strategic/concept document on interface and general operations. There is relatively little detailed traffic information provided with regard to actual staging.</td>
<td>Works staging plans are included in the TMP. Detailed STMP’s and TCP’s will be provided as design details are available and construction methodologies are finalised. These will be provided progressively in the form of STMP’s</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>It is assumed all the road works are planned for day time only as no night works are discussed in the report.</td>
<td>No night time works are proposed except in special circumstances like the lifting of the footbridge girder in place. An appropriate STMP, TCP and ROL application will be prepared and submitted to RTA for approval prior to the night works.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The plan does not consider the length of the right turn bay from Foreshore Rd into Penshy Road as heavy vehicle traffic already queues out quiet regularly. There is no scope to lengthen the bay because of the Orica works. The plan does not take into consideration the peak truck times associated with the ports operation. The modelling does not show the TC phasing or queues that will occur.</td>
<td>The proposed construction vehicles will have minimal impact on the existing intersections. One construction vehicle at every 4 minutes, which equals to 1 construction vehicle in every 3rd traffic signals cycle. SCATES traffic modelling analysis indicates accordingly. Previous SCATES model analyses carried out for the project’s EIS confirms this finding also. The project was approved with no modification requirements to the existing intersection with the ultimate Ports and other traffic volumes. Peak volumes are considered in the traffic modelling.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The figures used for the vehicles accessing the compound is a concern. There will be 178 staff spaces and the majority of the movements will be between 0600 and 0700 but only used 60 vehicle movements to represent this movement. This is considered to be low given that there is a peak time.</td>
<td>The intersection of Foreshore Rd/Botany Rd am peak period shows to be between 0745: - 08:45. Traffic modelling is carried out for the peak periods to ascertain the worst case scenario. Traffic volumes between 06:00 and 07:00 are lot lower than the peak at 07:45, and therefore staff arrivals between 06:00 and 07:45 has minimal impact on the intersection operations.</td>
<td></td>
</tr>
<tr>
<td>Date &amp; reference</td>
<td>Item, section, reference or page number</td>
<td>Comment</td>
<td>BH-JDN Response</td>
<td>Status as of 19/5/08</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------------------------------</td>
<td>---------</td>
<td>-----------------</td>
<td>---------------------</td>
</tr>
<tr>
<td></td>
<td>All road works along Foreshore Rd shall be designed to 90 km/h to allow a posted speed limit of 80km/h. The RTA need to know the commence date of the roadworks in advance to reduce the speed limit. You are required to inform the community of this speed reduction using VMSs on and around Foreshore Rd.</td>
<td>Note:RTA will be advised 10 days prior to proposed changes to speed limits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 1, Section 5.3.1, pg 8</td>
<td>All speed changes or reductions on State Roads must be in accordance with approved Road Occupancy Licences and Speed Zone Restrictions issues by the RTA.</td>
<td>Stated in the report. (Introduction, 10.5, 5.3.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 2, Section 5.3.4, pg 9</td>
<td>It is noted that construction activities are scheduled to commence in August. Please note that World Youth Day associated activities will be undertaken on approach to and following the event in July. Activities following the event may continue through to August. Where appropriate the RTA may restrict construction related activities that may impact on the State Road network during this period.</td>
<td>Noted. WYD Organising Committee indicated that the WYD will not have an impact on Foreshore Rd in August 08. Regardless individual STMP, TCP will be subject to RTA approval should circumstances change.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 3, Section 6.1.2, pg 11, dot point 4</td>
<td>Please ensure type F barriers are placed with appropriate offsets from traffic lanes and edge lines.</td>
<td>Stated in the report. (5.2, 5.3.2, 6.1.2, 6.1.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 4, Section 6.1.2, pg 11 dot point 5</td>
<td>All short term lane closures on State Roads or roads that may impact on State Roads are to be in accordance with approved Road Occupancy Licences.</td>
<td>Stated in the report. (Introduction, 10.5, 5.3.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section 6.2.3, pg 12 to 17</td>
<td>Traffic modelling on existing conditions and proposed conditions.</td>
<td>Heading only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 5</td>
<td>Traffic modelling program used in this report is not considered appropriate. INTANAL does not incorporate coordinated signals or existing queue lengths. A more appropriate modelling tool would be either SCATES or PARAMICS. It is requested that traffic data be remodelled utilising one of these tools.</td>
<td>Additional SCATES analyses were performed on Foreshore Rd, Botany Rd with the intersections of Foreshore Rd/Botany Rd, TCS #1525 and Botany Rd/Beauchamp Rd, TCS # 1526. Results similar to INTANAL output with minimal impacts noted.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Item 6 | The report indicates that the existing Level of Services is B, onsite observations have identified the following:  
  • Westbound right turn from Botany Rd to northbound Botany Rd frequently queues out of the turning bay during the Am and Pm peak periods  
  • Significant queuing occurs in the Pm peak for southbound vehicles on Botany Rd which frequently queues past Exell St. | The proposed construction vehicles will have minimal impact on the existing intersections condition’s. One construction vehicle at every 4 minutes, which equals to 1 construction vehicle in every 3rd traffic signals cycle. SCATES traffic modelling analysis indicates this accordingly. Previous SCATES model analyses carried out for the project’s EIS confirms this finding also. The project was approved with no modification requirements. | | |
<table>
<thead>
<tr>
<th>Item 7</th>
<th>The report indicates that the Average Vehicle Delay during the Am peak period is 20.6 seconds, and during the Pm peak period 18.7 seconds. Given the field observations detailed in Item 6, the RTA does not agree with the stated average Vehicle Delay.</th>
<th>Comments as per Item 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 8</td>
<td>The report indicates that the proposed arrangements will result in an increase of 0.4 seconds during the Am peak and 0.6 during the Pm peak period. Given the filed observations details in Item 6, and that it is proposed to introduce an additional 25 truck movements per hour, it is envisaged that the level of Service at the intersection will be further reduced. It is again requested that traffic modelling be undertaken utilising SCATES or PARAMICS.</td>
<td>Comments as per Item 6. SCATES modelling has now been undertaken and confirms the intersection level of service at B incorporating BHJDN truck volumes. 25No Trucks per hour was utilised by BHJDN as a worst case scenario to test the sensitivity of the model. BHJDN anticipate a peak of approximately 10-15No trucks per hour.</td>
</tr>
</tbody>
</table>
| Item 9 | It is requested that discussions be held with the RTA with a view of implementing measures to assist with managing and minimising the impacts of the increased truck movements, and the reduced level of Service at the intersection. Initial site observations indicate that possible improvements could include:  
- Extension of the right turn bays eastbound on Foreshore Drive and westbound on Botany Rd, to reduce and minimise queuing out of the bays.  
- Increase the length of the left turn slip lane eastbound on Foreshore Drive.  
- Introduce peak parking restrictions on Botany Rd southbound between Discovery Cove Business Park and Foreshore Drive. | Comments as per Item 6. BHJDN traffic flows are significantly less than that envisaged by the EIS. All modelling both during the EIS and by BHJDN would indicate that such enhancements are not necessary. |
<p>| Item 10, Section 10.6, pg 24 | There should be immediate notification to the RTA TMC of any unplanned closures on State Road or roads that may impact on State Roads. | Stated in the report. (8.1, 10.6) |
| Item 11, Section 10.6, pg 25 | In accordance with appropriate legislation, the RTA TMC may direct instruction BH-JDN to re-open any traffic lane or shoulder on a State Road without delay, whether or not closed from prior arrangements. | Noted in 10.6 and a standard conditions of all ROL’s. |
| Presentation to Botany Council | No comments received to date. Presentation undertaken on the 5 May 08 to Council Traffic Committee. | Should comments be received prior will be revised. |</p>
<table>
<thead>
<tr>
<th>Date &amp; /or reference</th>
<th>Item, section, reference or page number</th>
<th>Comment</th>
<th>BH-JDN Response</th>
<th>Status as of 19/5/08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Committee 5 May 2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Randwick Council Email received 06/05/2008</td>
<td>Item 1</td>
<td>The current plans show the approved haulage route as being along Foreshore Drive and General Holmes Drive/Southern Cross Drive. It specifically denotes that there is no heavy vehicle access along Botany Road, north of Foreshore Drive. I would recommend that Botany Road - to the east of Bumborah Point Road, Beauchamp Road - east of Denison Street, and, Wentworth Avenue, east of Denison Street, be clearly marked on all plans/maps as being forbidden accesses for vehicles associated with the site. This is recommended as Randwick City Council has previously had significant problems with heavy vehicle queuing, parking and manoeuvring along / emanating from these roads.</td>
<td>Noted. Port Traffic handbook notes acceptable routes for Project deliveries.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Item 2</td>
<td>I recommend that the traffic access requirements (haulage routes) be a specific line item within the contract with any supplier / trucking company associated with the site so that action may be taken against the operators by the applicant (i.e. if they don't comply with the designated routes they can be &quot;dismissed&quot; from the job).</td>
<td>Noted. Port Traffic handbook notes acceptable routes for Project deliveries. This will be bound into all trucking related subcontracts. Action is available under subcontracts to remedy non compliance with subcontract conditions.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Item 3</td>
<td>Although Foreshore Road is not within Randwick City Council area I would advise the applicant that Foreshore Road is used by some elements of the motoring fraternity as a high speed &quot;test track&quot;. Such activity has resulted in a number of fatalities - see <a href="http://www.smh.com.au/news/national/eight-foots-lose-cars/2008/05/05/1209839491775.html">http://www.smh.com.au/news/national/eight-foots-lose-cars/2008/05/05/1209839491775.html</a> and <a href="http://www.smh.com.au/news/national/botanya-100car-foots-rally-raided/2008/05/05/12098395297818.html">http://www.smh.com.au/news/national/botanya-100car-foots-rally-raided/2008/05/05/12098395297818.html</a> In particular note the quote from Commander Mason: &quot;He said half the fatal accidents in the Botany local area command happened on the short section of Foreshore Road targeted.&quot;</td>
<td>Issue of speeding is to be controlled by RTA and Police. Not a BH-JDN responsibility BH-JDN will cooperate with RTA and Police requirements relating to this matter.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BH-JDN will follow RTA guidelines, standards and directions. Signage to be approved by RTA prior to installation.</td>
<td></td>
</tr>
<tr>
<td>Date &amp;/or reference</td>
<td>Item, section, reference or page number</td>
<td>Comment</td>
<td>BH-JDN Response</td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>----------------------------------------</td>
<td>---------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>others nearby) need to be protected from their own poor choices.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>