

# **CONSTRUCTION TRAFFIC MANAGEMENT PLAN**

**ASSOCIATED WITH CONSTRUCTION OF THE LONG BAY FORENSIC  
AND PRISON HOSPITALS**

**AT**

**LONG BAY CORRECTIONAL CENTRE**

**ANZAC PARADE, LONG BAY**

*Prepared on behalf of*

**M U L T I P L E X   C O N S T R U C T I O N S   P T Y .   L I M I T E D**

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*Traffix hereby certifies that the Traffic Management Plan documented in this report has been prepared in accordance with the requirements of AS 1742.3 in so far as that standard is relevant*



*G.Pindar (Director)  
2 March 2006*



1. INTRODUCTION .....	3
2. LOCATION .....	3
3. APPROVAL PROCESS .....	3
4. OVERVIEW OF CONSTRUCTION STAGINGS .....	4
5. ASSESSMENT OF TRAFFIC IMPACTS .....	5
5.1 External Traffic Impacts.....	5
5.2 Access Design.....	6
5.3 Access Routes .....	7
5.4 Parking Arrangements.....	7
5.5 Pedestrian Access.....	7
5.6 Implementation.....	8
5.7 Internal Site Management .....	8
6. CONCLUSIONS .....	9

APPENDIX A:	FIGURES
APPENDIX B:	PHOTOGRAPHIC RECORD
APPENDIX C:	STAGING DRAWINGS

## 1. INTRODUCTION

This report has been prepared by TRAFFIX on behalf of Multiplex Constructions Pty. Limited and relates to the proposed construction of the Forensic and Prison Hospitals within the Long Bay Correctional Centre.

The report documents the Construction Traffic Management Plan (CTMP) that is required to undertake the construction of these facilities which are both scheduled to commence in April 2006. The Prison Hospital is scheduled for completion in August 2007 (a 16 month period), while the Forensic Hospital is scheduled for completion in November 2007 (a 19 month period). Accordingly, the majority of the overall construction period will involve the parallel and overlapping construction demands associated with these facilities, with cumulative traffic impacts needing to be assessed.

The proposed works involve access along the site frontage onto Anzac Parade as well as onto Calga Avenue at the 'rear' of the site and proposed access routes therefore include Anzac Parade, Calga Avenue and Austral Street. Aside from works associated with the establishment of safe access as discussed, all construction activity is to be contained wholly within the site. Parking for construction workers is proposed to occur within the wide median of Anzac Parade as also discussed further below.

## 2. LOCATION

A location and site plan are shown in **Figures 1 and 2** respectively in **Appendix A**, respectively. In addition, a photographic record is provided in **Appendix B** which provides a general appreciation of traffic conditions in the locality.

## 3. APPROVAL PROCESS

The development of these two prisons is to be assessed under Part 3A of the Environmental Planning and Assessment Act, 1979. Under adopted procedures, approval to this CTMP is to be sought from both Randwick Council and the RTA. In addition, the proposed relocation of an existing bus stop will require the approval of the STA and this would be most appropriately obtained via Council's Traffic Committee, upon which the STA is a casual member.

## 4. OVERVIEW OF CONSTRUCTION STAGINGS

The construction activities for both hospitals involve the following stages:

□	Site Establishment	Phase 1
□	Demolition/Site Preparation	Phase 2
□	Substructure Construction	Phase 2
□	Superstructure Construction	Phase 3
□	Building Envelope	Phase 3
□	Services and Finishes	Phase 3
□	External Works	Phase 3

It is evident that the above works will occur over three main phases for each hospital as shown above and the principles associated with these phases are shown in **Appendix C**. It will be noted that the Forensic Hospital works also include the demolition of the existing Prison Hospital and this is referred to as Phase 4 of the Forensic Hospital programme.

This work will be undertaken over a total 19 month period as mentioned above and activity is proposed at the following times:

Mon-Friday 7am to 5pm  
Saturday 7am to 4pm;

No work is proposed on Sundays or public holidays.

## 5. ASSESSMENT OF TRAFFIC IMPACTS

### 5.1 External Traffic Impacts

Multiplex has provided detailed projections of truck loads over the construction period for each project. A total of 6,899 truck loads are projected for both projects (about 13,800 trips) and these will be spread over a total of about 20 months, which equates to an average of about 26 trips per day (13 in, 13 out) over the construction period for both hospitals, assuming 26 days operation per month. The programme enables trips for each construction phase to be estimated quite accurately on an average monthly basis and Table 1 shows how movements will vary over the construction period for each hospital, as well as assessing the cumulative impacts of both projects. It is emphasised that in practice, there will be some overlap from month to month but the table is nevertheless an accurate representation of traffic for planning and impact assessment purposes.

**Table 1: Projected Daily Truck Trips**

Year	Month	Average Daily Traffic Generation (veh/day) (Sum of Arrivals and Departures)				
		Forensic Hospital		Prison Hospital		Cumulative Traffic Generation (veh/day)
		Activity <sup>1</sup>	Trips	Activity <sup>1</sup>	Trips	
2006	March	SE	4	SE	6	10
	April	SE	4	SE	6	10
	May	SE	4	SP/D	28	32
	June	SE	4	SP/D	28	32
	July	SP/D	160	SS	8	168
	August	SP/D	160	SS	8	168
	September	SS	4	SS	8	12
	October	SS	4	BE	12	16
	November	SS	4	BE	12	16
	December	SS	4	BE	12	16
2007	January	SS	4	F	16	20
	February	BE	12	F	16	28
	March	BE	12	F	16	28
	April	F	4	F	16	20
	May	F	4	F	16	20
	June	F	4	E	6	10
	July	F	4			4
	August	F	4			4
	September	F	4			4
	October	E	2			2
November	E	2			2	

Note 1:

SE	Site Establishment
SP/D	Site Preparation/Demolition
SS/SS	Substructure/Superstructure
BE	Building Envelope
F	Finishes
E	External Works

It is evident from Table 1 that there will be an average of about 44 veh/day from both projects (22 in, 22 out), with peak flows occurring in July and August of 2006 of 168 veh/day (84 in, 84 out) relating to the bulk excavation and filling operations.

In this regard, when considered over a typical 10 hour day, this equates to an average of 4 to 5 vehicle trips per hour over the construction period, with fluctuations about this average. The maximum volumes that occur in July/August 2006 equate to about 16 veh/hr (8 in, 8 out) on these days. These volumes will be shared between the available access routes as discussed in Section 5.3, with the vast majority of arrivals occurring via Anzac Parade.

## 5.2 Access Design

The construction for the two prisons will be via three access driveways which are shown in the plans provided in Appendix C. The location of these are also shown in more detail in **Figures 3 and 4** and include:

### ***Anzac Parade Main Access***

A main access via Anzac Parade is located to the immediate south of Forrest Street. This access provides left-in and left-out movements only to the southbound carriageway of Anzac Parade. This involves the construction of a deceleration lane suitable for use by a 19 metre articulated truck. A concept design for this access is shown in **Figure 3**. It is emphasised that this design will need to be adapted to the road geometry at detailed design stage.

The deceleration lane requires the relocation of the existing set-down bus stop which is shown in Appendix B. This will require the existing bus stop that is located about 200 metres further to the north along Anzac Parade (outside the main prison entry) to be used for both set-down and pick-up passenger activity and this is considered acceptable given the short term nature of this arrangement. This will require approval by Sydney Buses.

### ***Anzac Parade Secondary Access***

An existing roadway is located about 150 metres to the south of the main access and this is known as the ERU road. This access presently incorporates a deceleration lane in Anzac Parade and this arrangement will be retained.

### ***Calga Avenue Secondary Access***

This access is located onto Calga Avenue and involves the creation of a new driveway crossing onto this road. A concept design for this access is shown in **Figure 4**. It requires the construction of a bridge overpass of the security perimeter road to overcome a need for vehicles using this access to be subject to prison security protocols. The access provides a storage area to enable vehicles to queue clear of the public roadway if necessary, when approaching the (construction) security gates. It is recommended that 'No Stopping' signposting be installed as shown in Figure 4 to maximise available sight distances, together with other signposting as indicated.

### 5.3 Access Routes

The proposed access routes are shown separately for the Forensic and Prison Hospitals in **Figures 5 and 6** respectively. It is emphasised that the vast majority of traffic will use Anzac Parade when accessing construction sites for both hospitals. As discussed in Section 5.1, a total of 44 truck trips per day (22 in, 22 out) will access these two sites on an average day using all available routes and driveways.

It is expected that of these total trips, an average of 14 truck trips per day will use the Calga Avenue temporary access bridge (7 in, 7 out), of which only about 40% (3 in, 3 out) will travel via Austral Avenue. This is moderate and can be readily accommodated. Notwithstanding, it is recognised that daily fluctuations will occur around these averages, though peak volumes as shown in Table 1 are of a very short duration.

These volumes are considered moderate overall and will not create any unacceptable traffic impacts.

### 5.4 Parking Arrangements

The construction workforce for the two hospitals will vary over the construction period and a maximum of 220 people are expected (180 workers and 40 staff and subcontractors). These will generate a parking demand for up to 150 parking spaces.

To accommodate this demand, it is proposed to construct a temporary staff car park within the wide median of Anzac Parade as shown conceptually in **Figure 3**. This will accommodate about 150 cars (which can be varied as necessary) and this will satisfy the 'core' demand for parking. Any higher short term demands will rely on the existing public parking areas outside the main prison entry.

On street parking by worker's vehicles is not therefore expected and this situation will be monitored to ensure that residential areas are protected from unnecessary parking intrusion, should this occur.

It will be noted that access to this car park requires the construction of a short length of deceleration lane.

### 5.5 Pedestrian Access

It is proposed to construct a temporary pedestrian crossing between the temporary car park and the eastern side of Anzac Parade, as shown in Figure 3. This will provide safe access to the site for workers and will also be of assistance to the general public. The rerouting of pedestrians around the proposed deceleration lane is also required and this is not of concern in view of the absence of a footpath presently and the moderate pedestrian volumes.





## **5.6 Implementation**

The traffic management arrangements that are included in this CTMP should be implemented taking due account of on site conditions as will occur over the construction period. Accordingly, construction crew are expected to respond in a pro-active manner to ensure that the plan is implemented to maximum effect and with no obvious safety issues being overlooked.

The following matters are particularly noteworthy:

- All signs are to be placed where clear visibility is available;
- All barriers should be positioned to provide satisfactory clearances;
- Installations should be checked intermittently during the course of the day/s; and
- A certified Traffic Controller should be on-site at all times to supervise vehicle access movements where this is required.

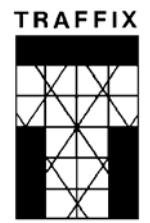
## **5.7 Internal Site Management**

The internal site management is addressed in separate documentation prepared by Multiplex.

## 6. CONCLUSIONS

This CTMP report should be read in conjunction with other documentation prepared on behalf of Multiplex Constructions and is referred for approval. Subject to approval, it should be noted that dates may alter and will be dependent upon external factors (including weather) and any significant changes to the programme will be advised to relevant authorities during the course of the construction period.

Requests for any special vehicles (wide, long or overweight loads) will also be the subject of separate application for permits, should these be required.



## **APPENDIX A**

### **FIGURES**





Source: UBD 2005



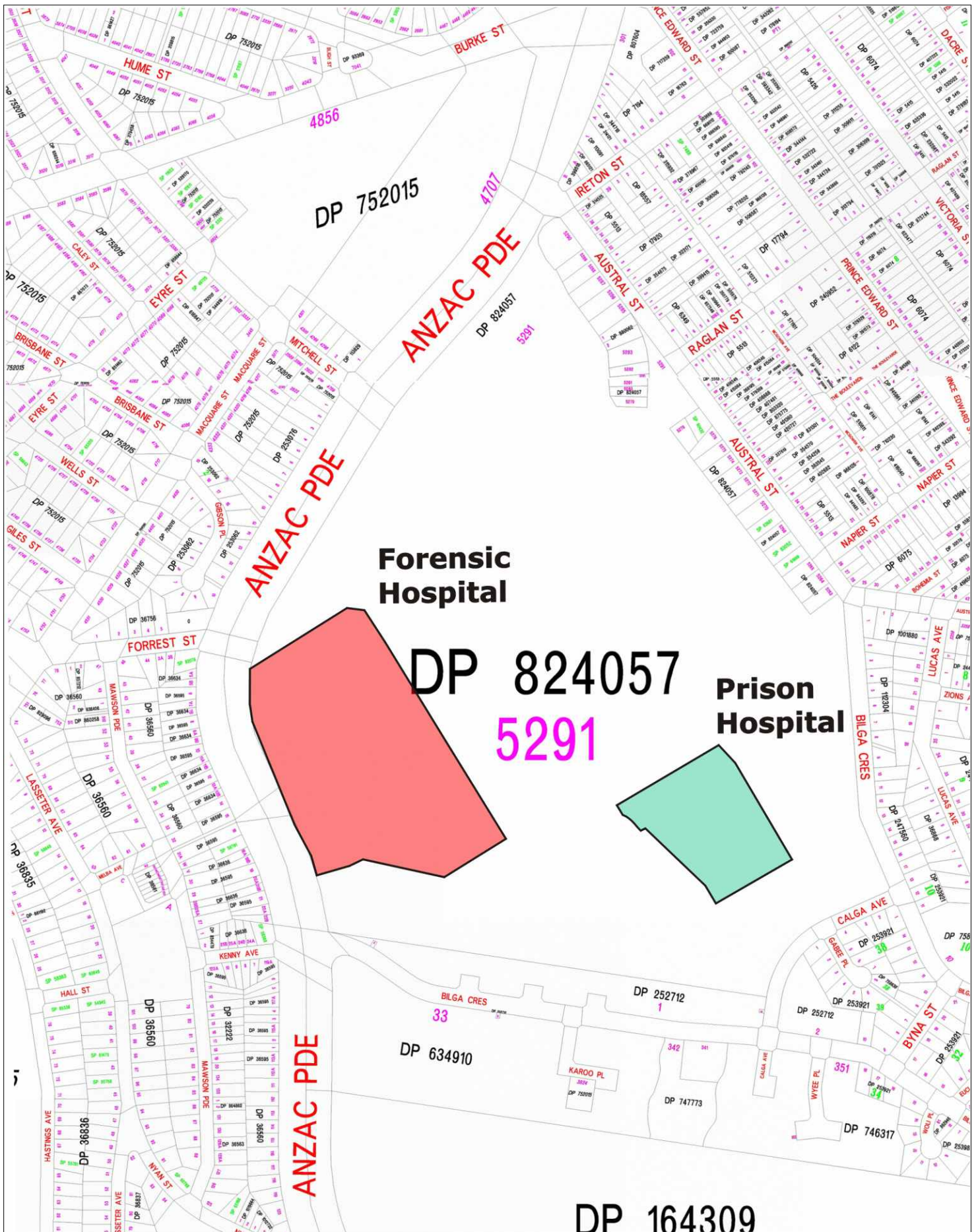
# CONSTRUCTION MANAGEMENT PLAN LONG BAY FORENSIC AND PRISON HOSPITALS

Prepared for Multiplex Constructions Pty. Limited

**Figure 1 LOCATION**

TRAFFIX Traffic & Transport Planners: Level 2, 55 Mountain Street, Broadway, 2007.





## CONSTRUCTION MANAGEMENT PLAN LONG BAY FORENSIC AND PRISON HOSPITALS

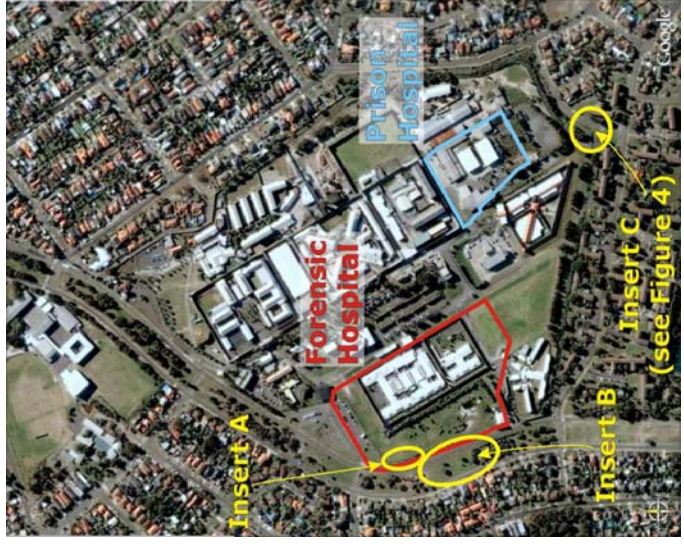
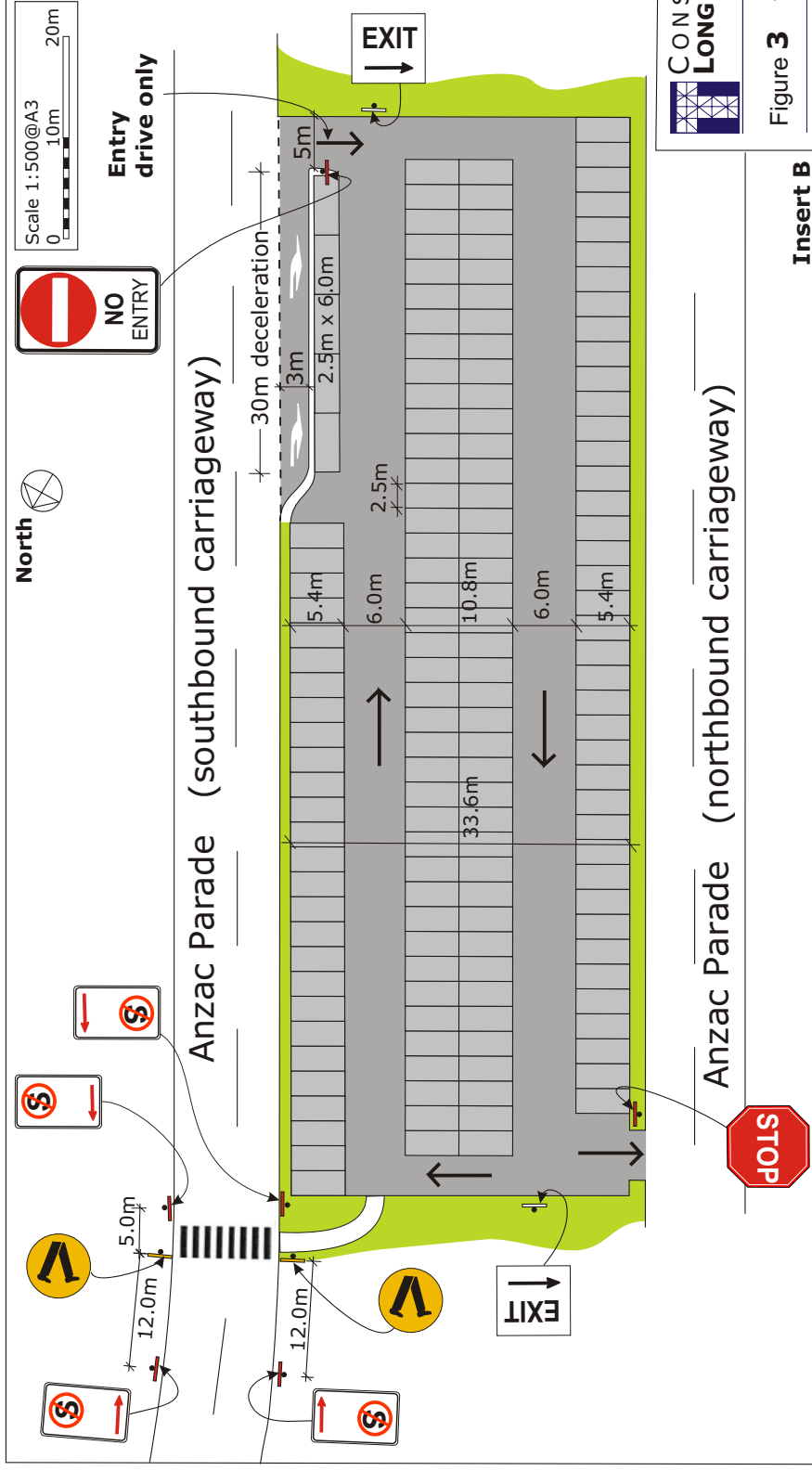
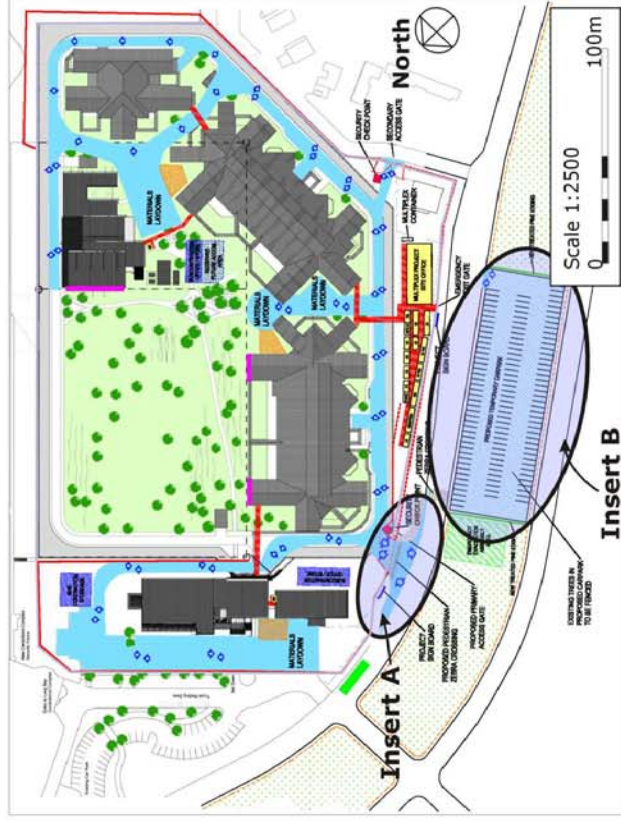
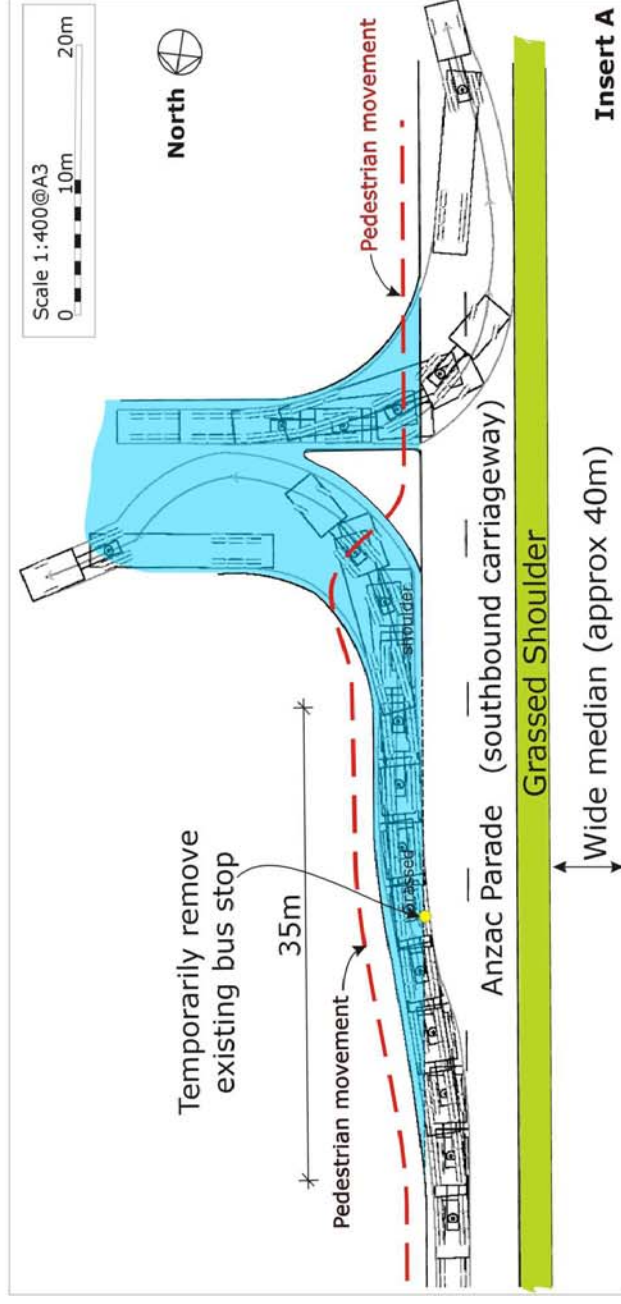
Prepared for Multiplex Constructions Pty. Limited

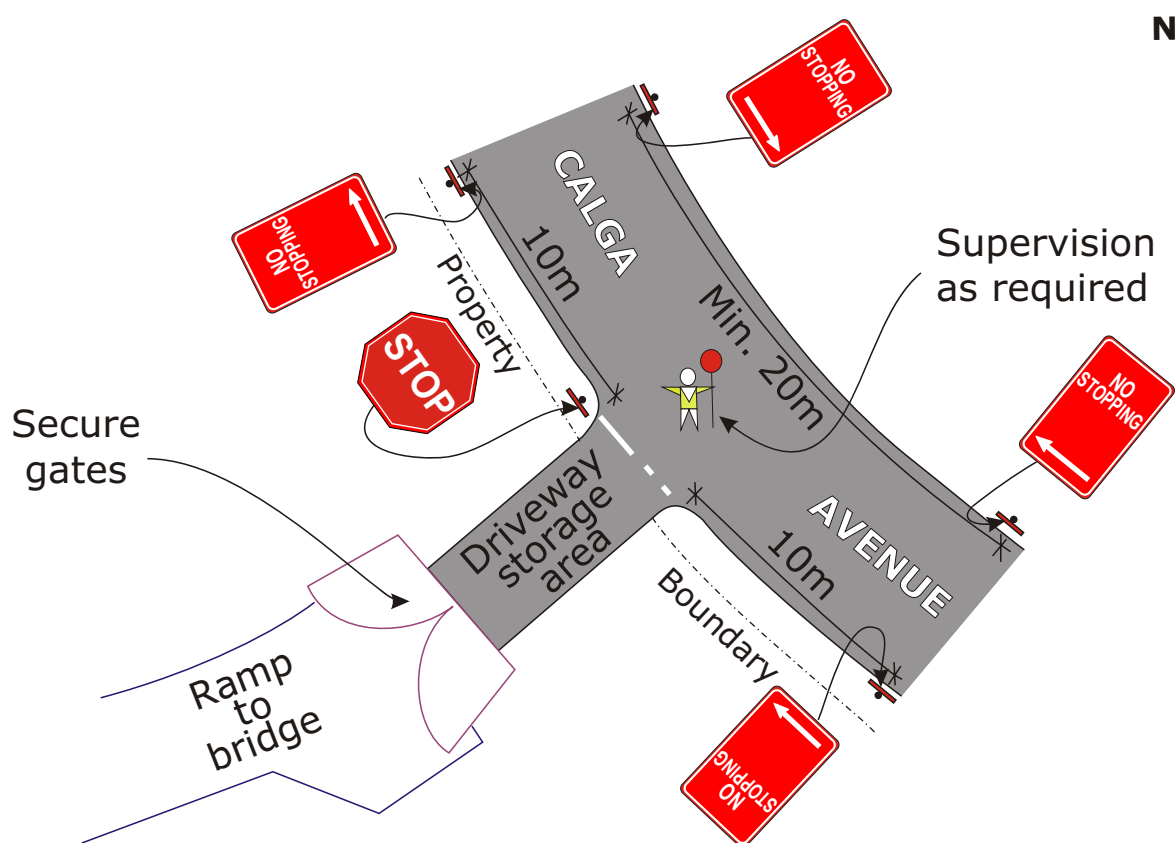
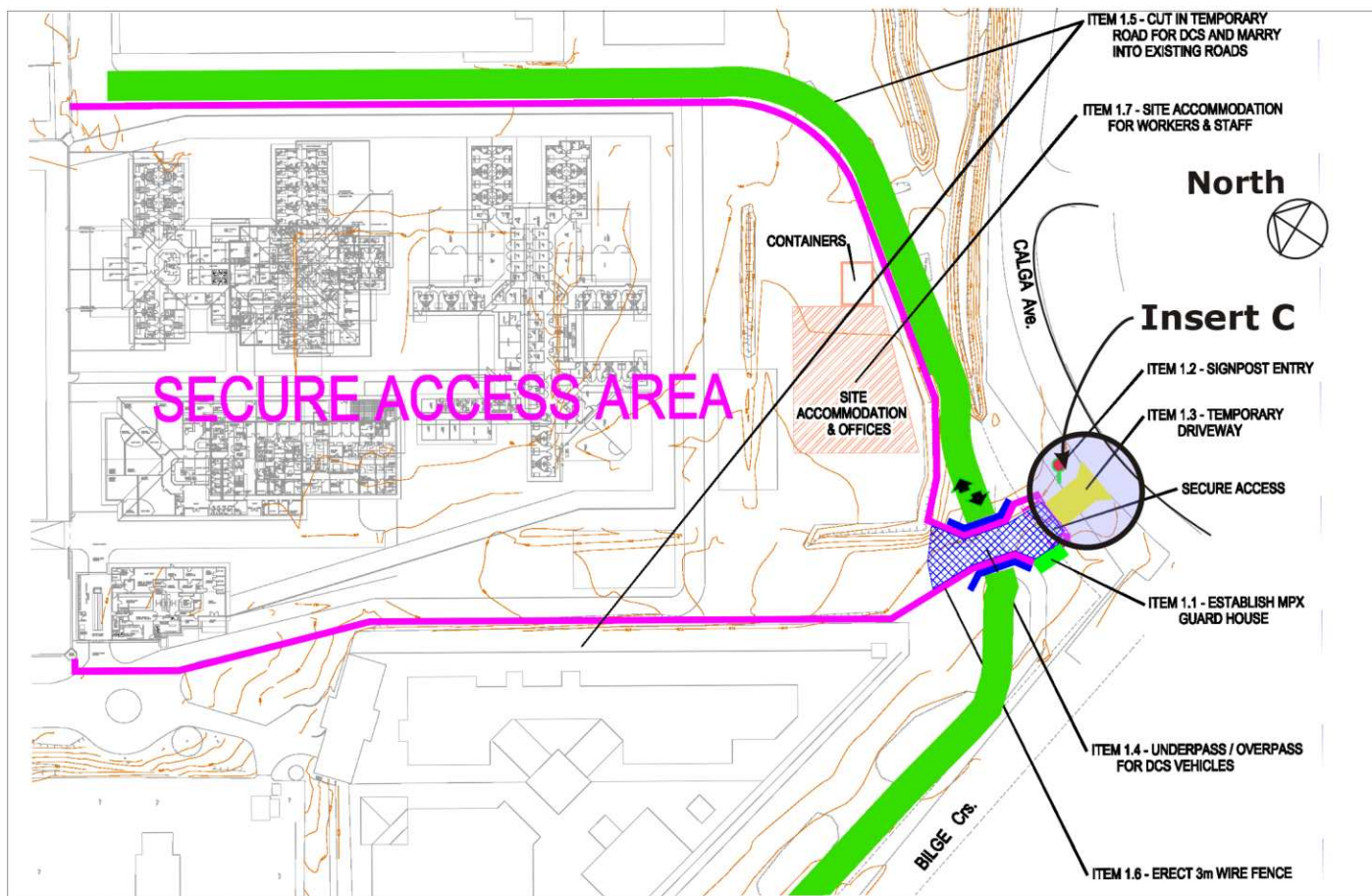
Figure 2

**SITE**

TRAFFIX Traffic & Transport Planners: Level 2, 55 Mountain Street, Broadway, 2007.







## CONSTRUCTION MANAGEMENT PLAN LONG BAY FORENSIC AND PRISON HOSPITALS

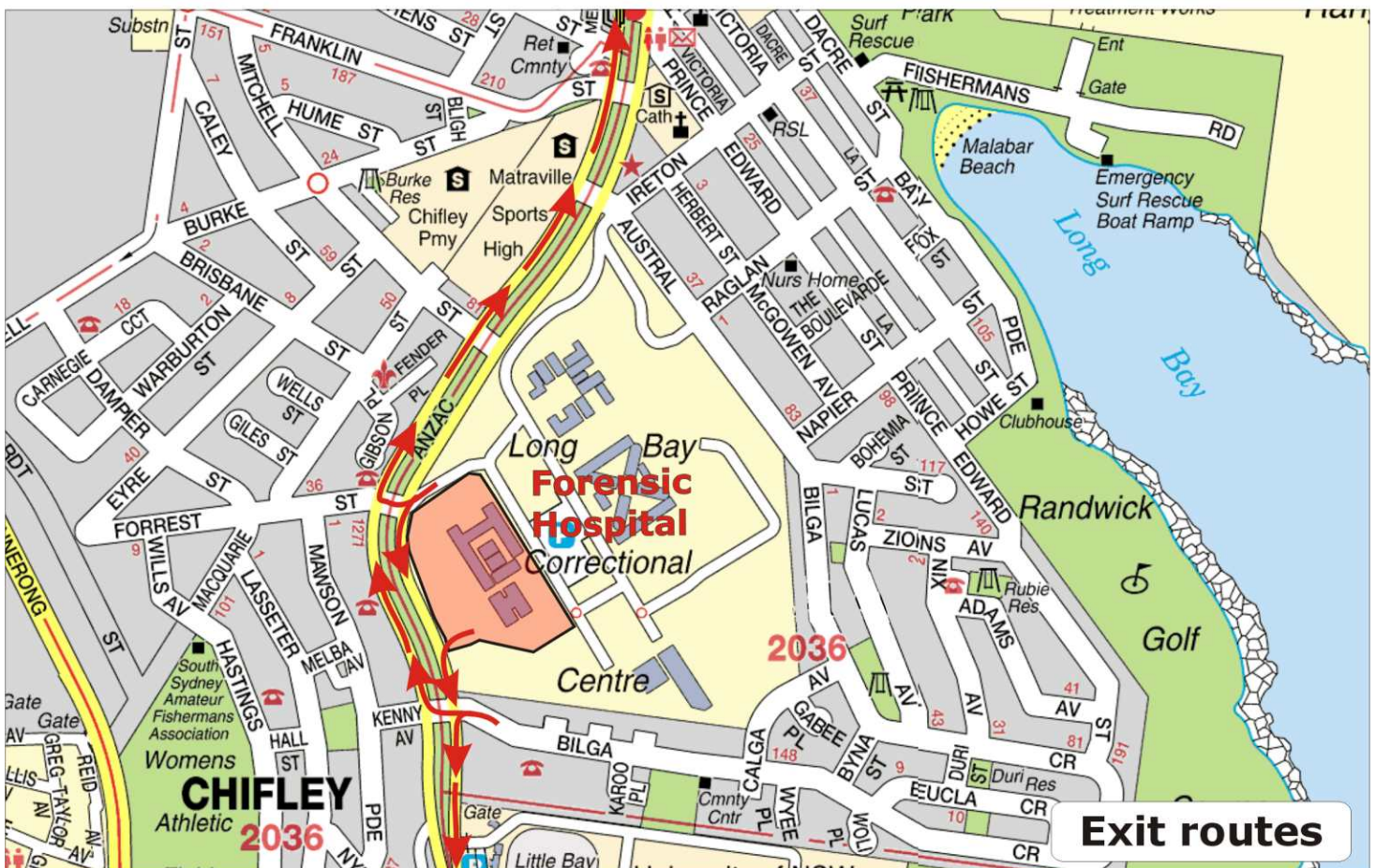
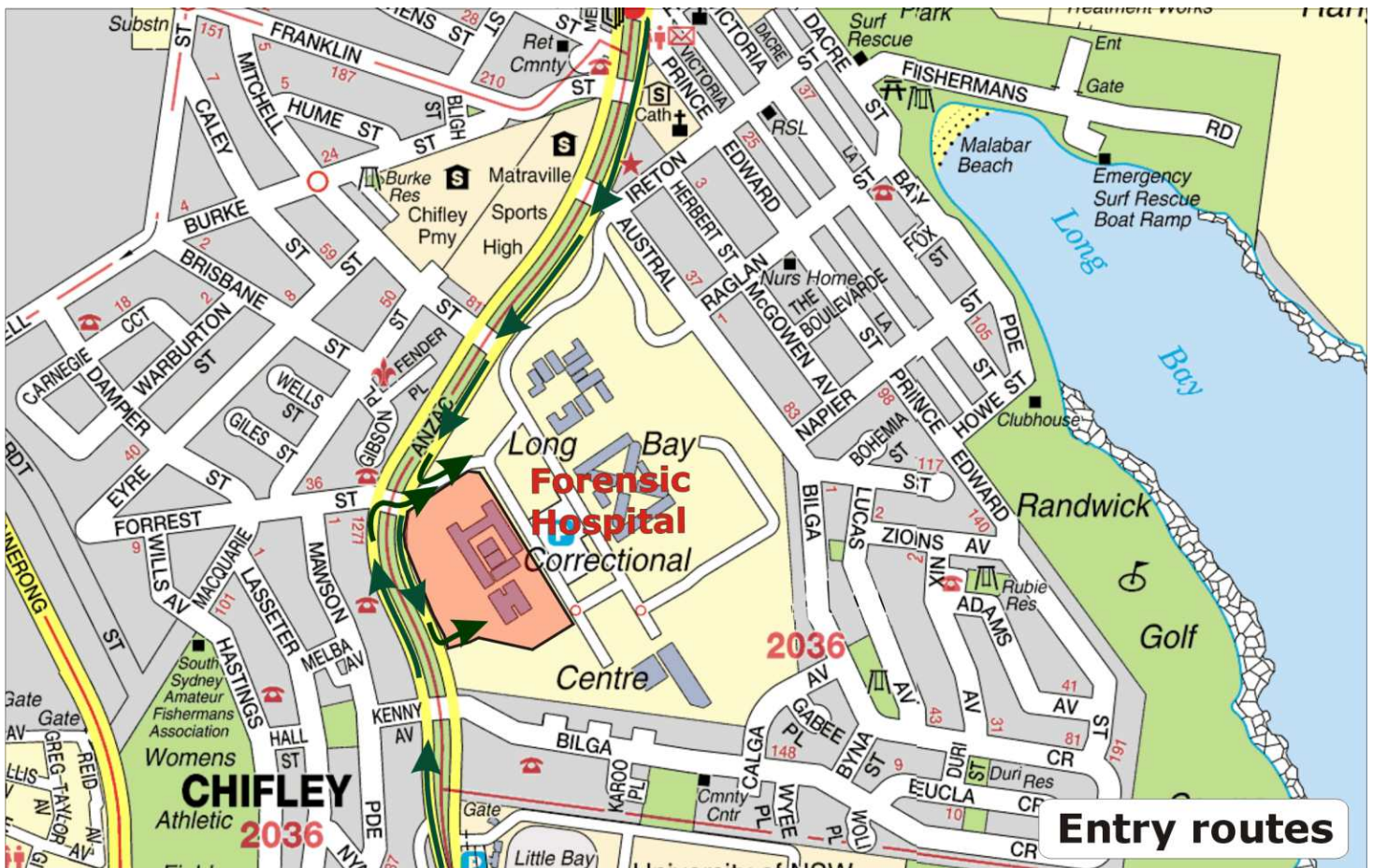
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Figure 4

### CALGA AVENUE ACCESS

TRAFFIX Traffic & Transport Planners: Level 2, 55 Mountain Street, Broadway, 2007.





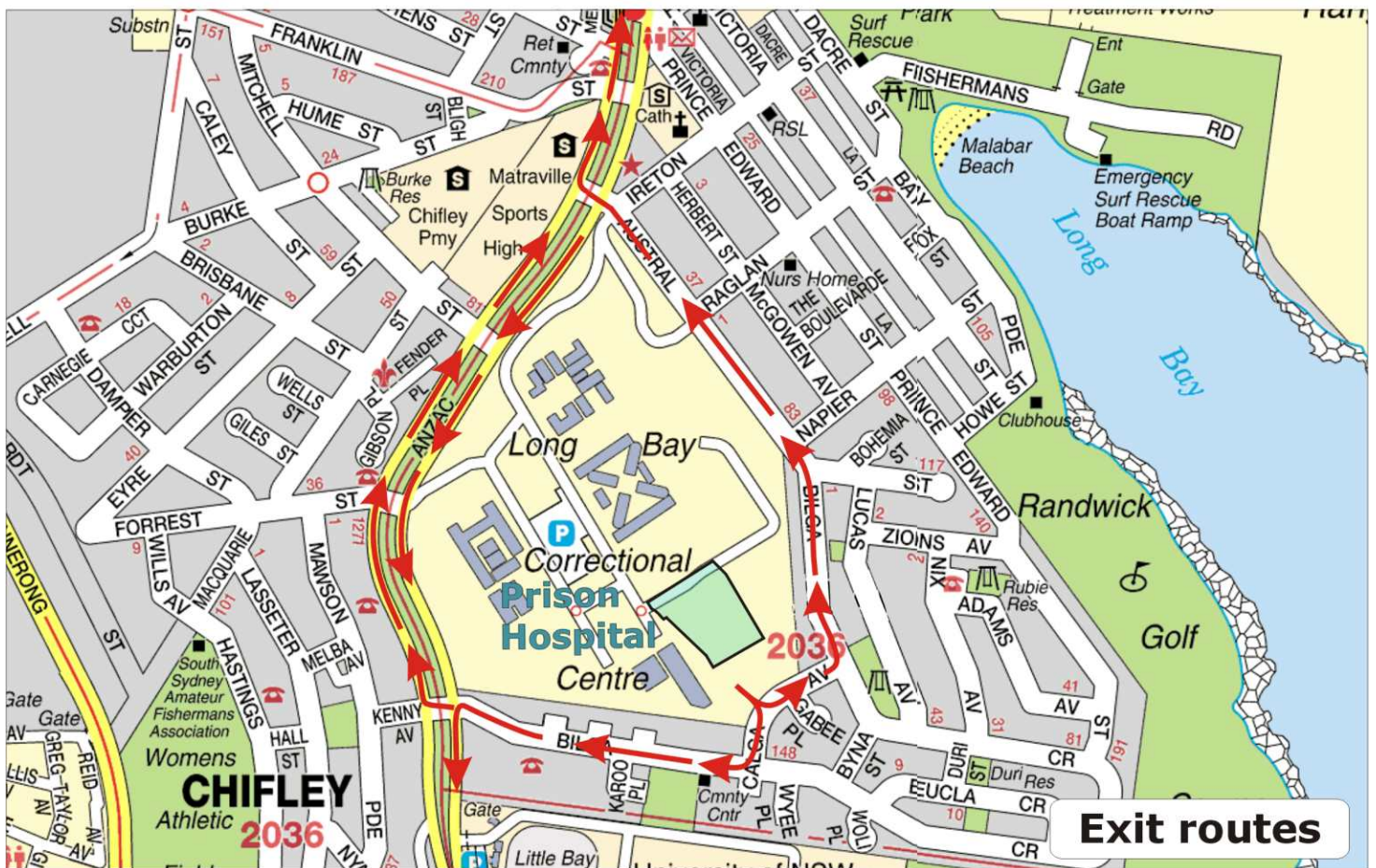
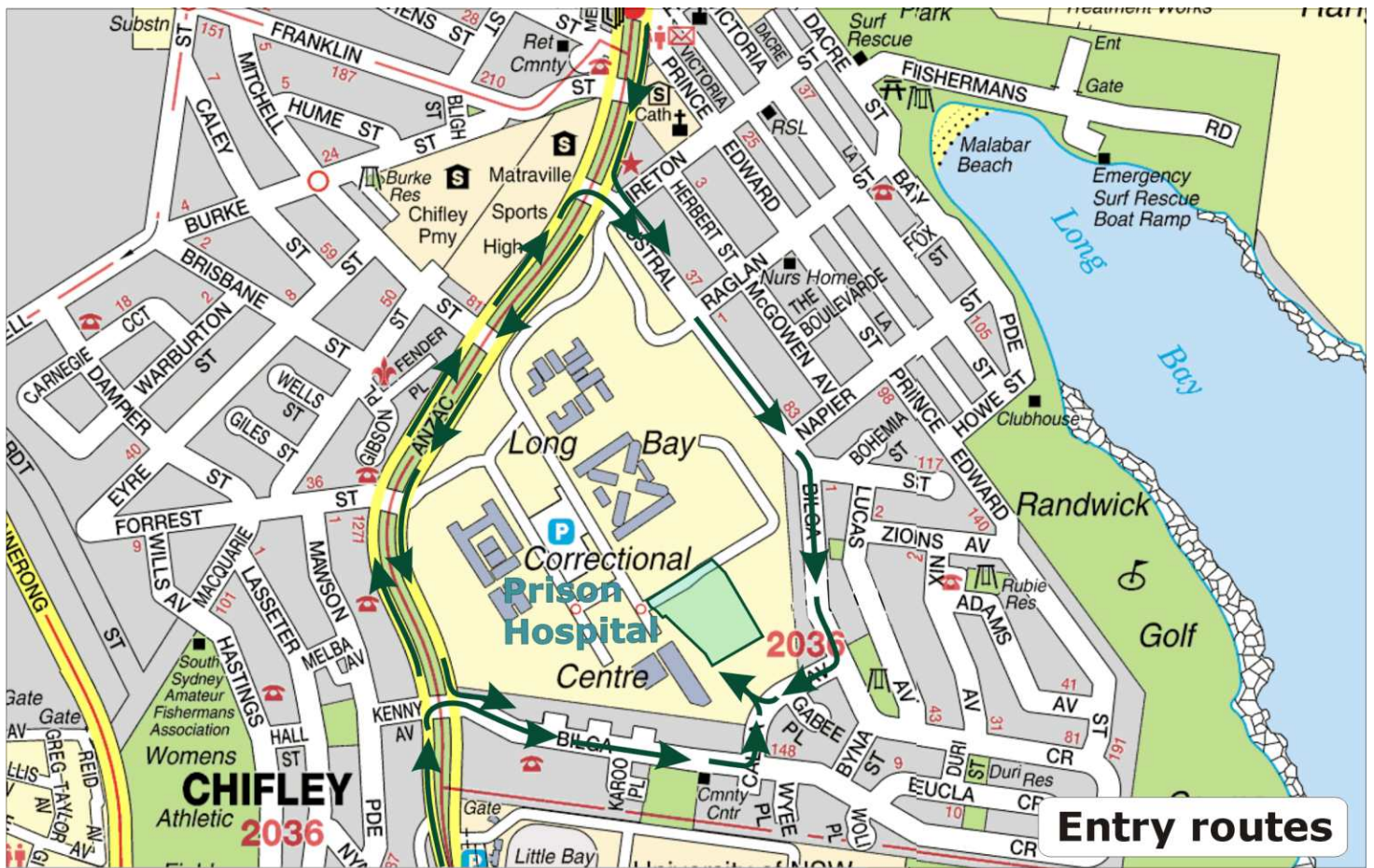
## CONSTRUCTION MANAGEMENT PLAN LONG BAY FORENSIC AND PRISON HOSPITALS

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### Figure 5 TRUCK ENTRY/EXIT ROUTES TO/FROM FORENSIC HOSPITAL SITE

TRAFFIX Traffic & Transport Planners: Level 2, 55 Mountain Street, Broadway, 2007.





## CONSTRUCTION MANAGEMENT PLAN LONG BAY FORENSIC AND PRISON HOSPITALS

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**Figure 6 TRUCK ENTRY/EXIT ROUTES  
TO/FROM PRISON HOSPITAL SITE**

TRAFFIX Traffic & Transport Planners: Level 2, 55 Mountain Street, Broadway, 2007.

**APPENDIX B**  
PHOTOGRAPHIC RECORD





View of the declaration lane in vicinity of bus stop.



View south along Anzac Parade showing the bus stop which is to be relocated.







View looking south in the vicinity of the proposed temporary carpark.



Reverse view looking north along Anzac Parade at Forrest Street.







View of secondary access to Anzac Parade.



View looking east along Bilga Crescent.





View looking north along Calga Avenue towards the proposed access.



View looking west along Astral Street.



**APPENDIX C**  
MULTIPLEX CONSTRUCTION PHASES





## EARLY WORKS, SITE ACCESS & ESTABLISHMENT

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