Chippendale LATM Study
Final Report

City of Sydney
5 February 2008
FS10640

Document Issue

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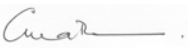
C	05/02/08	Final 2	Edmond Platon	Alan Stewart	

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1. Executive Summary

In January 2007 GTA Consultants were commissioned by the City of Sydney to undertake an LATM study of Chippendale, the principle objective of which was to identify the existing traffic issues in Chippendale and develop a set of Local Area Traffic Management (LATM) measures to address these issues with an ultimate aim to further improve public amenity.

This was to be undertaken having regard to the previous traffic work already undertaken for this area and in the context of the recently adopted Chippendale Improvement Plan together with the imminent redevelopment of the Carlton United Breweries site and was achieved through a combination of traffic and pedestrian surveys, on-site observations, community and stakeholder consultation, and discussions with various City of Sydney Council staff.

The LATM proposals have been developed on the basis of the findings of the existing conditions assessment and outcomes of the community consultation which identified a need to:

- Reduce traffic speeds in Meagher Street, Buckland Street and Shepherd Street;
- Reduce traffic volumes in Meagher Street and Blackfriars Street; and
- Improve traffic safety in Wiley Street.

It is important to note that, on the whole, the existing traffic conditions in the Chippendale area are within acceptable levels but the LATM proposals recommended should improve this situation further.

It is envisaged that these proposals could be implemented reasonably over a 5 year period to account for the external approval processes required for the traffic signal works, the time taken to progress these works through to detailed design and tender documentation and the acquisition and allocation of funding.

The cost to implement the proposed LATM measures would be in the region of approximately $330,000 - $346,000 per annum for the next four years.

It is recommended that the LATM measures proposed within this report be adopted by Council in principle so that they can be progressed to the next stage in the design process.

2. Introduction

2.1 Background & Objectives

The Chippendale area has been the subject of numerous traffic management studies over the years with the majority of work undertaken when this area was part of the old South Sydney Local Government Area. As GTA Consultants understands it, in 1990 a Local Area Traffic Management (LATM) scheme was prepared for Chippendale which was supported by a further LATM study in 2000. Only a proportion of the new measures proposed were ever implemented.

In 2005/6 the City of Sydney commenced its Local Action Plan Program and developed an Improvement Plan[1] for Chippendale which included the development of a master plan for the entire area highlighting improvements to traffic management, pedestrian amenity and safety, cycle facilities and public domain/open space.

GTA Consultants was commissioned by the City of Sydney in January 2007 to undertake a Local Area Traffic Management (LATM) Study of the Chippendale area in support of the proposals within the Improvement Plan.

The principle objectives of this LATM study were to:

- Review and assess the existing traffic conditions of Chippendale;
- Assess the viability of the proposed projects from the Improvement Plan;
- If the proposed projects identified in the Improvement Plan were determined to be suitable and justified, progress these to a conceptual design stage; and
- Identify and propose new concept LATM proposals for improving traffic flow and public amenity throughout the Chippendale study area.

This report encompasses Stages 1 & 2 of the project which includes the development of Conceptual Schemes and Community Consultation. Stage 3 (Detailed Design) and Stage 4 (Partial Contract Administration) should be progressed following adoption by the City of Sydney of the recommendations within this report.

2.2 Purpose of This Report

This report sets out an assessment of the traffic conditions within the Chippendale Study Area and includes the following:

i Assessment of the existing 2007 traffic volumes and speeds;

ii Analysis of the accident statistics for the 5 year period to 2006;

iii Assessment of the effectiveness of the already implemented LATM Schemes;

1 Further detail of the process and content of the Chippendale Improvement Plan is discussed in Section 3 of this report.

iv Assessment of the priority projects identified in the Improvement Plan;

v Identification of further opportunities to reduce volumes of traffic on local streets to improve public amenity;

vi Identification of pedestrian and cyclist improvements;

vii Development of concept LATM proposals; and

viii Development of a 4 year prioritised implementation plan.

2.3 Report Structure

This report is presented in the following sections:

1. Executive Summary;
2 Introduction;
3 Document Review;
4 Existing Conditions Assessment (Including Initial Stakeholder Consultation);
5 Review of Existing LATM Measures;
6 Chippendale 2007 LATM;
7 Community Consultation;
8 Cost Estimates and Implementation Program; and
9 Conclusions.

2.4 Referenced Documents

In preparing this report, reference has been made to a number of background documents, including:

- Austroads Guide to Traffic Engineering Practice Part 10 - Local Area Traffic Management, 2004;
- RTA Sharing the Main Street, A Practitioners' Guide, 2000;
- RTA Guidelines for Traffic Facilities, Parts 6 & 7.2, Local Area Traffic Management, 1986/7;
- RTA NSW Bicycle Guidelines 2003;
- RTA Road Design Guide 1991;
- RTA Guide to Traffic Generating Developments - 2002;
- Austroads Guide to Traffic Engineering Practice, Part 14 – Bicycles;
- Australian Standard/New Zealand Standard, Parking Facilities, Part 5: On-Street Parking AS/NZS 2890.5–1993;
- RTA-Technical Directions (Various);
- Traffic surveys undertaken by GTA Consultants as referenced in the context of this report;
- An inspection of the site and its surrounds; and
- Other documents as nominated.

3. Document Review

GTA Consultants have reviewed a number of documents provided by the City of Sydney to gain a better understanding of the study area and in particular to identify the issues that exist within this location. The reports which were of most relevance to this study have been summarised below.

3.1 Chippendale Phase 1 Improvement Plan & Issues Paper City of Sydney, 2006

The Chippendale Improvement Plan is one of the first initiatives developed from the City's Local Action Plans (LAPs) program that have begun to be rolled out across the entire Sydney LGA. The principle aim of the Improvement Plan is to develop a plan in partnership with the Chippendale Community to co-ordinate improvements to local area traffic management, public domain, open spaces and community facilities.

In April 2006 as part of this process Council committed to developing a master plan and urban design study (Improvement Plan) for the Chippendale area. The Improvement Plan has been developed with assistance from Landscape Architects and Traffic Consultants appointed by Council and at this stage has concentrated on the development of the master plan for Chippendale.

The key objectives of the Improvement Plan (Phase 1-Masterplan) are listed as follows:

- Develop a plan to guide short, medium and long term improvement projects;
- Improve traffic management, public domain, open space and community facilities for the local community by integrating all relevant City of Sydney programs;
- Ensure the projects complement the areas historic and desired future character;
- Improve safety and accessibility for pedestrians and cyclists;
- Improve access to and quality of open space;
- Develop traffic calming design solutions for local streets; and
- Make recommendations on future community facilities, open space and recreation needs.

The development of the Improvement Plan was undertaken by the collation of existing information of the Chippendale area, development of an issues paper determined from reviewing previous reports and on-site observations, the development of measures to address the issues identified and consultation with the local community.

Key Issues identified of relevance to this study were:

Vehicular Circulation and Local Area Traffic Management

- Through traffic on Meagher Street and Buckland Street;
- Speeding on Myrtle Street from Regent Street;
- Myrtle Street/Meagher Street intersection experiencing illegal traffic movements; and
- Confusing speed markings at Abercrombie Street/O Connor Street intersection.

Pedestrian Circulation and Safety

- Difficulty in crossing main roads, particularly Abercrombie Street;
- Insufficient and inconvenient pedestrian links between adjacent parks, universities, shops, bus stops and community facilities;
- Footpaths are too narrow;
- Speeding cars entering Chippendale from arterial road network;
- No pram ramps at Buckland Street closure and Beaumont Street; and
- Rose Street footpath trip hazards.

Cyclists

- No designated or marked cycle routes for recreational cyclists;
- Lack of cycle parking;
- Cyclist access from West Chippendale to the network identified in the Cycle Strategy and Action Plan 2007-2017;
- No continuity of cycle markings from Shepherd Street south of Cleveland Street through Chippendale; and
- No link between Chippendale and both Prince Alfred and Victoria Parks.

A total of approximately 25 potential projects were identified in the Improvement Plan to address the issues which, in consultation with the Chippendale Community, were prioritised by the City of Sydney.

Although the two crossing facilities linking Victoria Park and Prince Alfred Park ranked highly during the prioritisation process it was also identified that they were long term proposals requiring complex approval processes. Other priority proposals identified with a more achievable timeframe for implementation were as follows:

- Meagher Street Measures (Including Threshold Treatment at Meagher Street/Regent Street, Traffic Calming, Signalised Pedestrian Crossing at Meagher Street/Abercrombie Street; Street Tree Planting); and
- Buckland Street Measures (Including Threshold Treatment at Buckland Street/Broadway intersection, Wombat crossing on Buckland Street near Blackfriars Street, Pram Ramps at Peace Park, Widening of the footpaths between Paints Lane and Daniels Street, Cycleway).

3.2 Carlton United Breweries (CUB) Site

The CUB site is located in the north eastern corner of Chippendale and is bounded by Broadway, Abercrombie Street, Wellington Street and Kensington/Goold Street. It is the site of a disused brewery but the site still contains active administration and office facilities and is currently the subject of a major commercial/retail/residential development proposal.

The two reports undertaken by Consultants in relation to the Carlton United Breweries site dealing primarily with traffic and transport issues are summarised below.

3.2.1 Carlton United Breweries Site – Stage 1 Masterplan Transport Report – MWT, 2006

The purpose of this study was to assess the traffic and transport implications of the proposed redevelopment of this site which included a review of the existing traffic conditions and public transport operations in close proximity of the site, an estimation of the traffic generation and parking requirements of the development, preparation of a transport management plan and an assessment of the internal and external road network connections.

This study was commissioned by Carlton United Breweries Pty Ltd with the key conclusions as follows:

- The traffic generated by the proposed redevelopment would not have a significant impact on the operation of the surrounding streets;
- The proposed signal intersections at Abercrombie Street/Blackfriars Road/Irving Street[2], Broadway/Balfour Street, and Kent Road/Regent Street on the Arterial Road Network would operate with a satisfactory level of service and also provide improved pedestrian and cycle access through the area; and
- The closure of Balfour Street and development of the park would still allow pedestrian/cyclist and emergency vehicle access.

It should also be noted that a Paramics Traffic Model was produced for this study which encompassed the entire Arterial road network surrounding the Chippendale area.

3.2.2 Carlton United Breweries Site Chippendale Traffic and Transport Study – PBAI & Halcrow, 2004

This traffic and transport study was commissioned by City of Sydney to support the development of planning controls for the Carlton and United Breweries (CUB) site. The report resulted from concerns from Council that the existing development controls did not adequately address or regulate the impacts that re-development might have on the surrounding area. Council also identified this site as an opportunity to further its commitment to more sustainable development in the CBD through the development of a draft Local Environment Plan (LEP) that promotes sustainability and liveability.

[2] It should be noted that this location is different from the location proposed in the Improvement Plan which recommends a signal crossing at O'Connor Street/Abercrombie Street.

This study provided City of Sydney with the following supporting information:

- Modal Split Targets for future car, public transport, walking and cycling;
- Car Parking rates in support of the modal split targets;
- Guidelines for integrating the development with existing and proposed public transport services and potential pedestrian and cycle links;
- Guidelines for integrating the development with the existing road network (both local and arterial); and
- An indicative Travel Plan which promotes the use of sustainable transport for employees, visitors and residents.

Some of the key findings of relevance to the Chippendale LATM study are as follows:

- On street parking demand is high within the Chippendale area primarily as a result of the terraced housing which does not have off-street parking combined with the use of this area by those requiring access to commercial offices, universities, parks and other locations within the CBD;
- Most on-street parking is time restricted with approximately 40% designated as resident parking schemes;
- Poor levels of service exist for vehicles exiting the Chippendale Area onto the Arterial Road Network including in particular Meagher Street/Abercrombie Street/Myrtle Street and Regent Street/Meagher Street; and
- Need to provide north/south and east/west cycle and pedestrian access through the site via Balfour Street and O'Connor Street.

3.3 Traffic Study of Chippendale Area – Transport & Urban Planning Associates, October 2000

This traffic study was commissioned by the former South Sydney Council in 2000. The key objectives of the study, in consultation with the Community, were:

- To examine the traffic patterns within the Chippendale Study area;
- To identify opportunities to reduce traffic volumes on local streets within Chippendale as well as the constraints; and
- To examine the pedestrian links within, to and from the study area including links across Abercrombie Street and City Road.

The study resulted in the development of an opportunities plan (Refer Appendix A) for Chippendale which was only partly implemented.

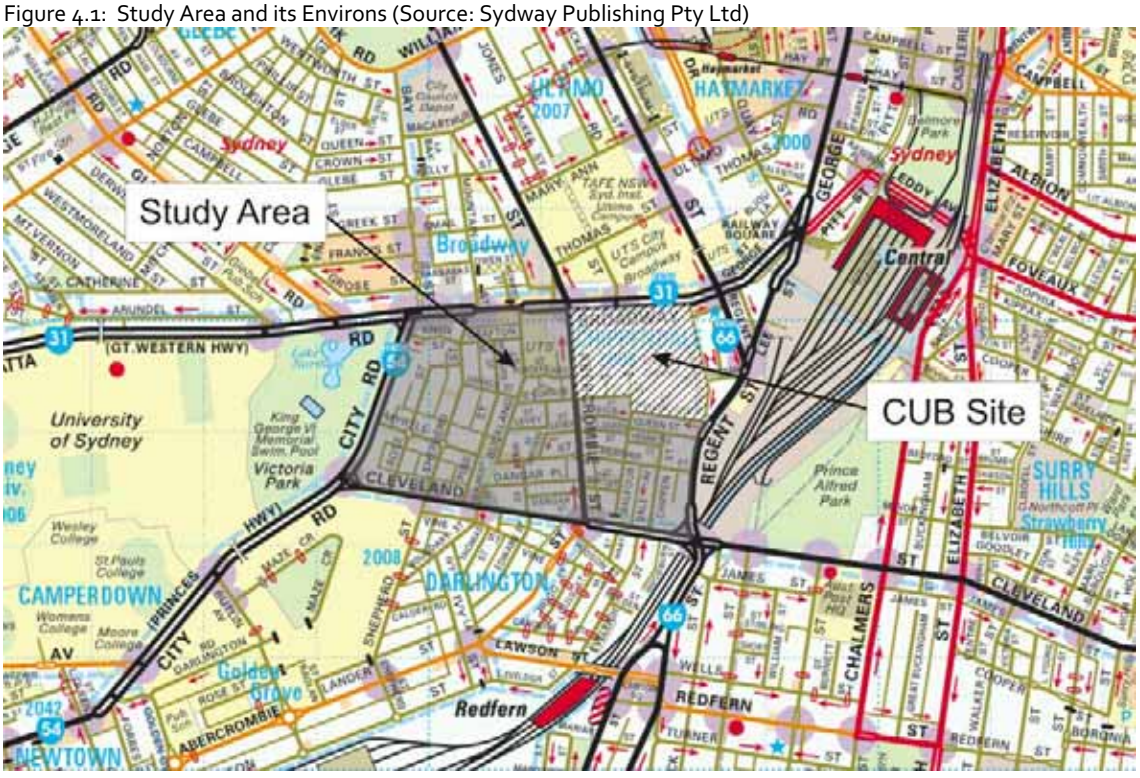
4. Existing Conditions Assessment

4.1 Study Area

Chippendale is bounded by four major arterial roads namely Broadway to the north, Regent Street to the east , Cleveland Street to the south and City Road to the west. The study area is divided in two by another arterial road, Abercrombie Street. Chippendale is located to the south of the CBD directly to the west of Central Railway Station. Major land uses surrounding the area include the University of Sydney and Victoria Park to the west, Prince Albert Park to the east, the University of Technology Sydney (UTS) City Campus and TAFE NSW to the north and Redfern station to the south. Broadway shopping centre is also a predominant land use which is located on Broadway to the north of the study area.

The location of the study area and the surrounding environs is shown in Figure 4.1

Figure 4.1: Study Area and its Environs (Source: Sydway Publishing Pty Ltd)



4.2 Carlton United Breweries Site

The CUB site is located in the north eastern corner of Chippendale and is bounded by Broadway, Abercrombie Street, Wellington Street and Kensington/Goold Street. It is the site of a disused brewery but the site still contains active administration and office facilities and is currently the subject of a major commercial/retail/residential development proposal.

4.3 Road Hierarchy

The RTA Road Design Guide states the purpose of a functional road hierarchy is to establish a logical integrated network in which roads of similar functional classifications are:

- Provided with the same general level of traffic service with regards to trip purpose, traffic composition, capacity and operational speed;
- Designed, constructed and maintained to the same general level of structure with regard to alignment, cross section, pavement strength and access control; and
- Assigned to the appropriate administrative control.

4.3.1 Functional Classification

This classification includes arterial, sub-arterial, collector and local roads. Together the roads make up a road network. The functional road classifications in NSW are:

- State Roads – which are fully funded by the RTA;
- Arterial – predominantly carry through traffic from one region to another forming principal avenues of communication for urban traffic movements;
- Sub-Arterial – connects the arterial road to areas of development and carries traffic directly from one part of the region to another. They may also relieve traffic on arterial roads in some circumstances;
- Collector – connects the sub-arterial roads to the local road system in developed areas; and
- Local – the sub-divisional roads within a particular developed area. These are used solely as local access roads.

The road hierarchy within the study area is illustrated in Figure 4.2.

4.3.2 Implications for the Study

The traditional hierarchical structure is not observed in Chippendale. The road network consists primarily of local roads which link directly with major state/arterial roads with no collector or sub-arterial roads in between. This leads to through traffic in the local streets as vehicles in the heavily congested arterial roads attempt to find alternative routes that will reduce their travel time during the AM and PM peak periods. In Chippendale, local area traffic management measures have been implemented which have reduced the extent and impact of through traffic to a large degree.

The state/arterial roads within the study area are:

- Cleveland Street;
- Abercrombie Street;
- Regent Street;
- Lees Street;
- Broadway; and
- City Road.

Figure 4.2: Road Hierarchy

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Major Arterial (over 20,000 veh/day)

Sub Arterial (15,000 - 20,000 veh/day)

Collector Road (5,000 - 15,000 veh/day)

Local Road (<2000 veh/day)

Client: City of Sydney
CHIPPENDALE LATM TRAFFIC STUDY
Figure 4.2: Road Hierarchy

4.4 Traffic Volumes & Speed Assessment

4.4.1 Traffic Surveys

GTA Consultants undertook turning movement counts at key intersections within the study area on Thursday, 8th February 2007 and Saturday, 10th February 2007 during the AM peak (7am–9am), PM peak (4pm-6pm) and week-end peak (12pm-2pm) periods. Additionally 7day (14th to 21st February 2007) 24-hour tube counts were undertaken on key roads within the study area to obtain mid-block volume and speed data. Details of the survey locations are provided in Figure 4.3 with more detailed traffic count data provided in Appendix B.

4.4.2 Environmental Capacity and Speed Performance Standards

The RTA Guide to Traffic Generating Developments specifies the environmental limits for each road class which are detailed in Table 4.1.

A further criteria specified by the RTA is that traffic volumes on local roads should not exceed a maximum of **2000 vehicles per day**[3].

These two sets of criteria have been used as the basis for identifying traffic issues within the streets of Chippendale.

Table 4.1: Environmental Capacity and Speed Performance Standards

Road class	Road Type	Max Speed (km/hr)	Max Peak Hour Volume (veh/hr)
Local	Street	40	200 (desirable) and 300 (absolute)[4]
Collector	Street	50	300 (desirable) and 500 (absolute)

(Source: RTA Guide to traffic Generating Developments, 2002)

4.4.3 Traffic and Speed Assessment

GTA Consultants analysed the traffic survey data to determine the existing volume and speed conditions in Chippendale.

This assessment indicated that, with the exception of those streets listed in Table 4.2, most of the local roads of Chippendale were within an acceptable range in relation to their speed and peak hour traffic volumes. A summary of the AM and PM peak hour volumes and 85th percentile speeds for Chippendale are provided in Figures 4.4, 4.5 and 4.6 respectively.

3 Reference: RTA Road Design Guide 1991 – Table 1.2.6

4 This figure can be used to calculate annual average traffic volumes by assuming a peak to daily ratio of 10%.

Figure 4.3: Traffic Survey Locations

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Intersection Counts
3 x 2hr peak periods

Link Counts (Volume & Speed)
24hr/7 days

Client: City of Sydney
CHIPPENDALE LATM TRAFFIC STUDY

Figure 4.3: Traffic Survey Locations

Figure 4.4: Peak Hour Traffic Volumes (AM)

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>500vph	100-199vph
300-499vph	50-99vph
200-299vph	<50vph

Environmental Capacity Performance Standards		
Road Classification	**Type**	**Volume**
Local	Street	200-300vph
Collector	Street	300-500vph

Client: City of Sydney
CHIPPENDALE LATM TRAFFIC STUDY

Figure 4.4: Peak Hour Traffic Volumes (AM)

Figure 4.5: Peak Hour Traffic Volumes (PM)

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>500vph	100-199vph
300-499vph	50-99vph
200-299vph	<50vph

Environmental Capacity Performance Standards		
Road Classification	**Type**	**Volume**
Local	Street	200-300vph
Collector	Street	300-500vph

Client: City of Sydney
CHIPPENDALE LATM TRAFFIC STUDY

Figure 4.5: Peak Hour Traffic Volumes (PM)

Figure 4.6: Speed Data (85th percentile) - both traffic directions

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	>60km/h
	50-59km/h
	40-49km/h
	30-39km/h
	<30km/h

Environmental Capacity Performance Standards		
Road Classification	**Type**	**Speed**
Local	Street	40km/h
Collector	Street	50km/h

Client: City of Sydney
CHIPPENDALE LATM TRAFFIC STUDY

Figure 4.6: Speed Data (85th percentile)
Both traffic directions

Table 4.2: Chippendale Streets (Approaching or exceeding standards)

Street Name	Functional Classification	Environmental Performance Standards		Peak Period	Survey Result		Compliance	
		Peak Traffic Volume (veh/hr)	85th % Speed (km/hr)		Peak Traffic Volume (veh/hr)	85th % Speed (km/hr)	Volume (veh/hr)	Speed (km/hr)
Buckland Street	Local Street	200/300 (Desirable/Max)	40 (Max)	AM	128	48	Yes	No
				PM	153		Yes	
Meagher Street	Local Street	200/300 (Desirable/Max)	40 (Max)	AM	321	42	No	No
				PM	387		No	
Shepherd Street	Local Street	200/300 (Desirable/Max)	40 (Max)	AM	166	47	Yes	No
				PM	167		Yes	

* Peak Hour Traffic Flows were derived from Turning Movement Counts or 24 hour Tube counts

The streets listed in Table 4.2 have higher traffic volumes and speeds when compared against the other streets within Chippendale which could be as a consequence of traffic using these streets during the peak periods as alternatives to the surrounding and often congested Arterial Road Network.

4.5 Through Traffic Routes

Although there has been a variety of a traffic management measure implemented in Chippendale over the years, through traffic still appears to occur on some specific streets.

Analysis to determine possible through traffic routes was undertaken by GTA Consultants based primarily on an assessment of the existing traffic flows and access restrictions (i.e. turn bans, road closures), to identify through routes in Chippendale that could potentially bypass the arterial road network. The speed and volumes of traffic on these through routes were then compared against environmental limits to identify the through traffic routes. The results of the assessment indicated that through traffic could be occurring on the following streets:

- Meagher Street;
- Buckland Street; and
- Shepherd Street.

It was also identified during the community consultation that in view of there being limited opportunities to turn right from Broadway, that some traffic was using Buckland Street, Blackfriars Street and Abercrombie Street, performing a G-turn, in order to head north on Wattle Street. This also results in further traffic conflict and a reduction in public amenity.

The possible through traffic and the G-turn routes are detailed in Figure 4.7.

Figure 4.7: Identified Rat Runs and G-Turn

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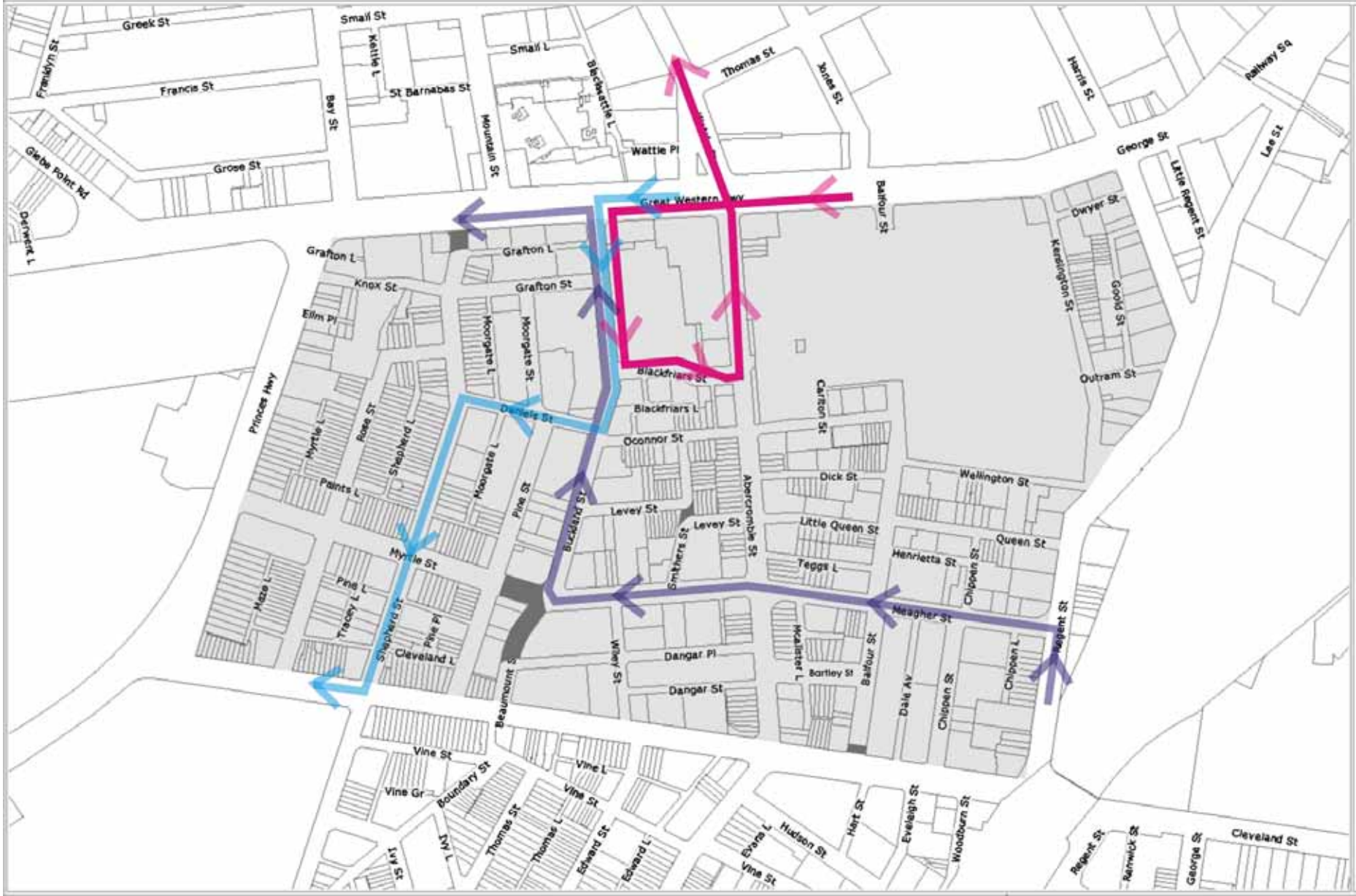


Rat Run Route 1

Rat Run Route 2

G-Turn

Client: City of Sydney
CHIPPENDALE LATM TRAFFIC STUDY

Figure 4.7: Identified Rat Runs and G-Turn

4.5.1 Implications for the Study

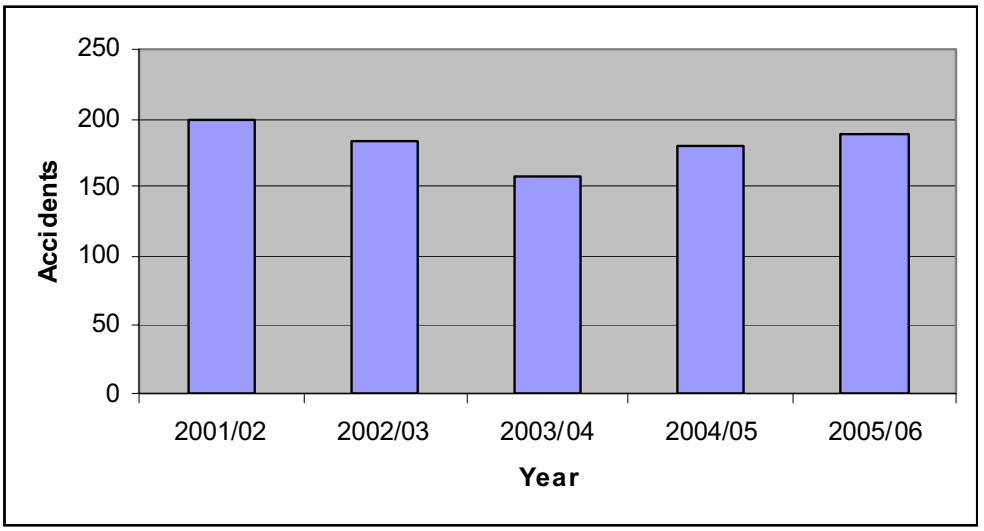
- The main implication of the higher traffic speed and volumes on certain streets in Chippendale is reduced standard of public amenity on these streets in terms of pedestrian safety and local access.

4.6 Accident Analysis

GTA Consultants analysed the 5 year accident data for the financial years 2001/02 to 2005/06 within the study area as provided by the City of Sydney.

A summary of the total accidents by year are provided in Graph 4.1.

Graph 4.1: Chippendale Annual Accident Breakdown (2001-2006)



The locations of these accidents are shown in Figures 4.8a and 4.8b.

It has been noted that the majority of traffic accidents occurred on the main arterial road network surrounding Chippendale. On the local roads within the Chippendale study area, a total of some 44 accidents were recorded. These accidents were analysed in further detail with the results as set out in Table 4.3.

4.6.1 Accident Analysis within Chippendale Study Area

A summary of the accidents and their locations within the study area is included in Table 4.3.

Table 4.3: Accident Summary – Study Area

Location	No. of Accidents			
	Vehicle-Vehicle	Vehicle-Pedestrian	Vehicle-Cyclist	Other
Abercrombie St/ Meagher St/ Myrtle St	10	1	2	1 (vehicle-motorcyclist)
Abercrombie St (excl. intersection with Meagher St)	10	2		1 (cyclist-cyclist) 2 (vehicle-motorcyclist)
Meagher St/Chippen Ln				1 (vehicle-fixed object)
Shepherd St	2	1		
Buckland St		1		1 (vehicle-motorcyclist)
Blackfriars St	2			1 (vehicle-motorcyclist)
Wiley St	1			1 (vehicle-fixed object)
Pine St		1		
Myrtle St	1			
Grafton St				1 (vehicle-fixed object)
Balfour St (excl. intersection with Meagher St)	1			
Total	**27**	**6**	**2**	**9**

More detailed analysis was undertaken to determine if there were any locations within the study area where accidents of a similar nature had occurred a number of times at the same location. In particular, the results for accidents recorded at the intersection of Abercrombie Street/Meagher Street/Myrtle Street and along Blackfriars Street and Abercrombie Street were analysed.

Abercrombie Street/Meagher Street/Myrtle Street Intersection

At the intersection of Abercrombie Street and Meagher Street, 10 of the 14 recorded accidents involved a vehicle travelling from the west along Meagher Street colliding with a northbound vehicle, pedestrian or cyclist. This indicates that the left turn movement from west to north at this location is problematic, as it was the vehicle undertaking this movement which was at fault in each circumstance.

Blackfriars Street

There were three recorded accidents along Blackfriars Street, with two vehicle/vehicle accidents and one vehicle/motorcycle accident. Two of these were head-on collisions which occurred during the early evening, with the other a nose to tail collision.

Abercrombie Street

Abercrombie Street was analysed further to determine the locations and details of any pedestrian related accidents between Cleveland Street and Broadway. There were three pedestrian related accidents recorded between 2001 and 2006. Each of these accidents resulted in injuries to the pedestrian and were located at the intersections of Abercrombie Street/Meagher Street/Myrtle Street, Abercrombie Street/Blackfriars Street and Abercrombie Street/Dick Street. The accident data does not indicate that any particular section along Abercrombie Street is more dangerous for pedestrians than others.

4.6.2 Implications for the Study

Most of the accidents between 2001 and 2006 occurred on the arterial road network surrounding the Chippendale Study area which is attributed to the sheer volume of traffic using these roads. However the accidents which did occur within the study area highlighted some key issues to be addressed within the study as follows:

- Accidents occurring at the intersection of Meagher Street/Abercrombie Street imply that the treatment at this intersection should make the east/west banned movement self enforcing and that cyclists should be catered for within the design; and
- Pedestrian accidents along Abercrombie Street, although minimal, could possibly be further reduced if a pedestrian crossing or crossings were provided along Abercrombie Street.

Figure 4.8a Chippendale Accident Data 2001 to 2006 - All Accidents

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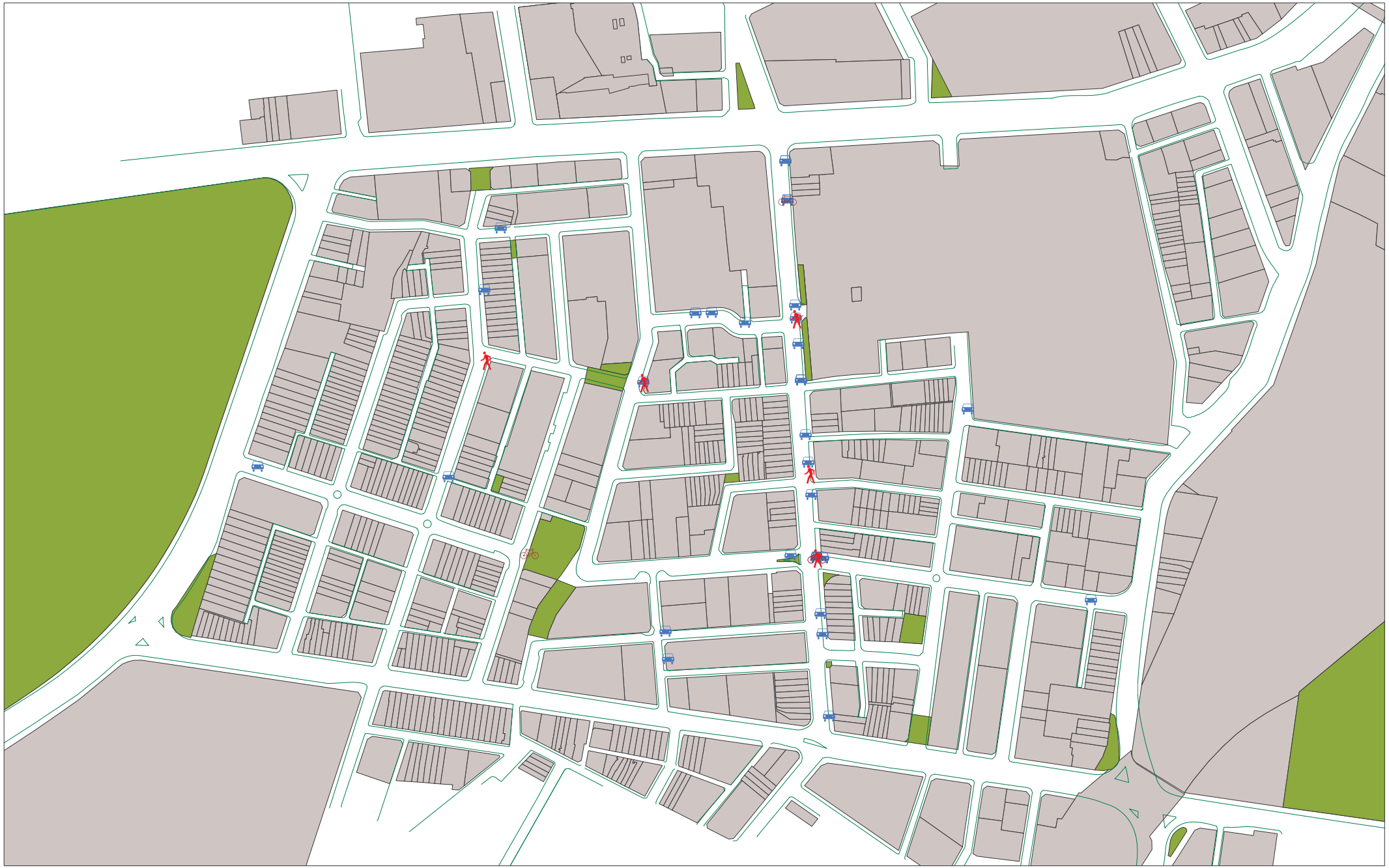
Figure 4.8b Chippendale Accident Data 2001 to 2006 - Accidents within Study Area



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4.7 Buses, Bicycles and Pedestrians

4.7.1 Buses

A number of bus routes operate on the perimeter of the Chippendale study area, along the arterial roads of Broadway, City Road and Cleveland Street with a series of bus stops supporting these routes. These are shown in Figure 4.9.

4.7.2 Implications for the Study

- Bus services do not travel through Chippendale and as such would not be affected by any on-street LATM proposals. However consideration should be given to pedestrian access to the bus stops on Broadway, City Road and Cleveland Street.

Figure 4.9: Bus Routes

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352
370
413, 412
422, L23, 423
426, 428, L28
431, 432, 433, 434
435, L40, 440
436, 437, L38, 438
449
461, 480, 483
470
501

Bus Stop

Client: City of Sydney
CHIPPENDALE LATM TRAFFIC STUDY

Figure 4.9: Bus Routes

4.7.3 Bicycles

There is currently a lack of designated bicycle facilities that either runs through or adjacent to the Chippendale area. The City of Sydney Cycle Strategy Route No. 19 runs through East Chippendale, using Balfour Street (through the CUB site) and Wellington Street. The link from Regent Street to Prince Alfred Park across the railway corridor is proposed for the long term, with cyclists currently required to use Cleveland Street to access the park. West Chippendale is also not directly linked to the City of Sydney Cycle Strategy network.

The ***Chippendale Local Action Plan Issues Report (Clouston Associates, 2006)*** indicates that some of the existing issues relating to cycling in Chippendale include limited amenity for recreational users with no designated cycle routes, lack of bicycle parking and no links to the greater City of Sydney Cycle Network.

The Chippendale Improvement Plan recommended primary and secondary cycle routes within Chippendale which linked to the City of Sydney cycle network. These routes are shown in Figure 4.10.

Inspections on site indicate that there are some issues that would need to be rectified to allow these routes to accommodate bicycle users. Some of these issues are noted as follows:

- There are inadequate kerb ramps at Peace Park near Buckland Street;
- No kerb ramps are provided at Dangar Place/Beaumont Street for cyclists accessing the park to the north;
- At Balfour Street near Cleveland Street, there are no kerb ramps provided; and
- Eastbound access across Abercrombie Street between Myrtle Street and Meagher Street is currently not permitted for cyclists.

4.7.4 Implications for the Study

The bicycle analysis suggests, in respect to the study, that;

- Cyclist are an important consideration within the LATM study and any measures proposed should accommodate their needs sufficiently;
- Consideration should be given to improving accessibility between Myrtle Street and Meagher Street by permitting this through movement for cyclists;
- Local Bicycle Routes should be implemented and provided with appropriate facilities as necessary; and
- Locations of bicycle parking should be identified.

Figure 4.10: Improvement Plan Cycle Routes

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City of Sydney Strategic Network

Chippendale Local Action Plan - Primary Cycle Links

Chippendale Local Action Plan - Secondary Cycle Links

Client: City of Sydney
CHIPPENDALE LATM TRAFFIC STUDY

Figure 4.10: Cycle Routes

4.7.5 Pedestrians

4.7.5.1 Background

The ***Open Space and Community Facilities Needs Study (Heather Nesbitt Planning, 2005)***, prepared for the Carlton United Brewery Site, identified that to travel east-west, people used Myrtle, Queen and Meagher Streets, whilst north-south travel occurred along Pine, Shepherd, Buckland and Regent Streets.

With regard to pedestrian circulation and safety, the ***Chippendale Local Action Plan Issues Report (Clouston Associates, 2006)*** indicated that some of the main pedestrian issues included crossing main roads, particularly Abercrombie Street, poor links to adjacent facilities, including parks, narrow footpaths and the lack of pedestrian ramps.

4.7.5.2 Pedestrian Interview Surveys & Analysis

GTA Consultants undertook pedestrian interview surveys within the Chippendale study area on Wednesday 14th February 2007 primarily to determine the main pedestrian desire lines and identify any specific pedestrian issues within Chippendale.

The responses from the surveys indicated that the most popular roads used by pedestrians were **Broadway, Beaumont Street, Buckland Street, Myrtle Street and Abercrombie Street.** Other roads used also include Cleveland Street, Shepherd Street and Meagher Street.

Some of the specific pedestrian issues in the area, as recorded during the interview surveys, were as follows:

- Difficulty crossing busy streets, particularly Abercrombie Street;
- Busy local streets, with high vehicle speeds, including Buckland Street and Myrtle Street;
- Narrow footpaths, particularly on Buckland Street; and
- Lack of street lighting, particularly Shepherd Street, which is a concern for personal safety.

Other more general comments received included that there were rough and uneven footpaths; litter and glass on roads and footpaths, and concerns for safety due to crime and theft.

Figure 4.11 indicates the main pedestrian desire lines through Chippendale.

4.7.5.3 Pedestrian Volume Surveys

GTA Consultants undertook pedestrian volume surveys at the intersections of Meagher Street/Regent Street, Myrtle Street/City Road and Broadway/Buckland Street on Friday 15th May 2007 during the AM (8am-10am) and PM (3pm-7pm) peak periods to determine the levels of pedestrian activity at these three intersections. At the intersection of Myrtle Street/City Road in particular GTA Consultants also recorded those pedestrians crossing City Road unassisted across the 6 lanes of City Road traffic.

The outcomes of this survey indicated particularly heavy pedestrian flows across Buckland Street at the intersection of Broadway and Buckland Street with bi-directional flows of 498 pedestrians/hour in the AM peak period and 909 pedestrians/hour in the PM peak period respectively.
There were also a total of 17 pedestrians recorded crossing City Road at Myrtle Street during the AM peak hour period and 12 pedestrians crossing City Road during the PM peak hour period as indicated in Figure 6.7 in Appendix D.

Figure 4.11: Pedestrian Desire Lines

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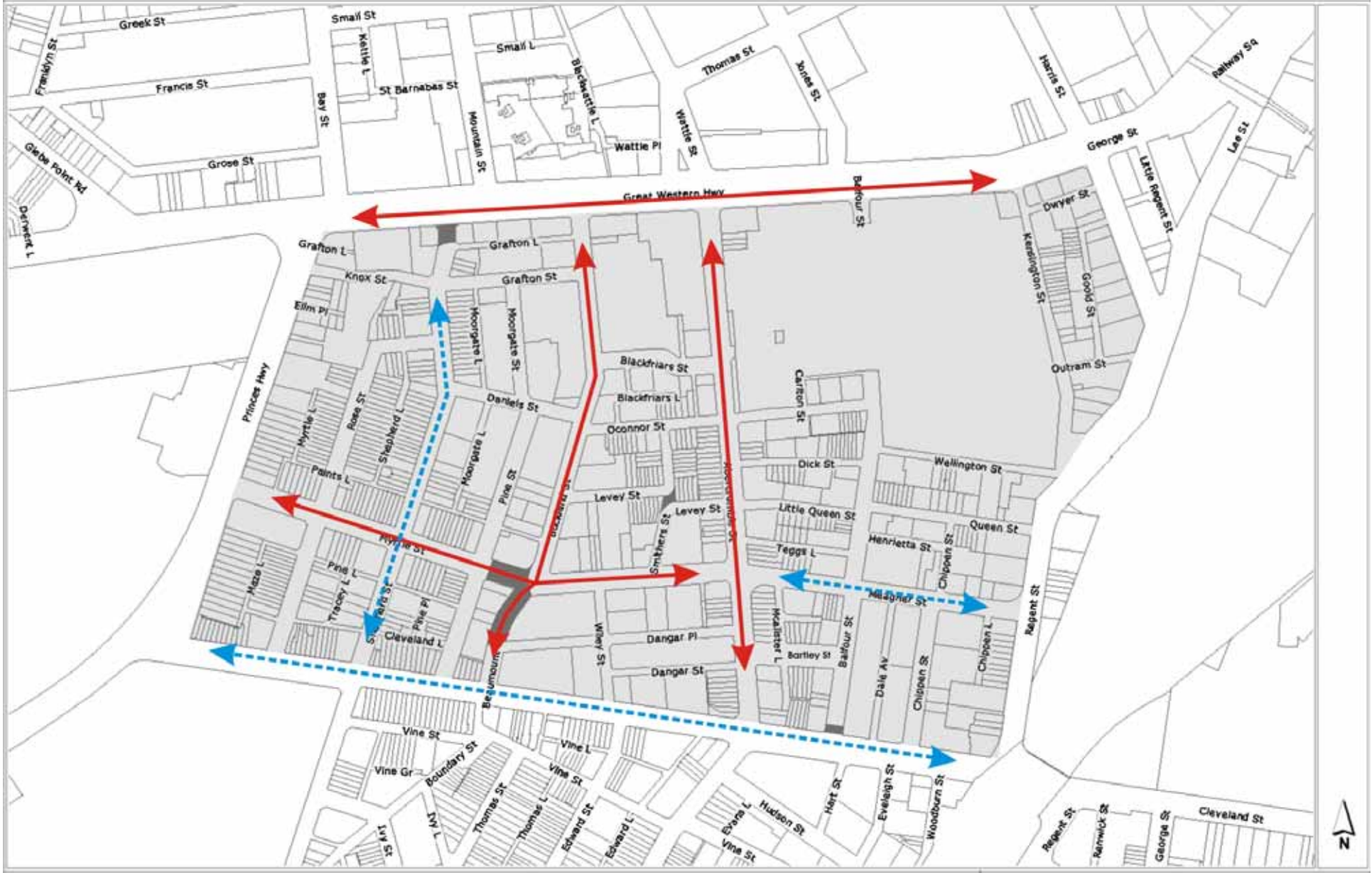

Primary Pedestrian Desire Lines

Secondary Pedestrian Desire Lines

Client: City of Sydney
CHIPPENDALE LATM TRAFFIC STUDY

Figure 4.11: Pedestrian Desire Lines

4.8 Car Parking (On-Street)

Information obtained from previous reports and studies and observations on site indicated that there was a high demand for parking within the Chippendale study area which could be attributed to the housing types which does not provide off street parking and the demand for short term parking activity from shoppers and business people. The issue of parking is important in the development of any LATM measures which should look to minimise the loss of parking wherever possible. The issue of parking is also important in the context of the CUB site which, it is claimed, would provide sufficient parking to cater for the likely demand of the proposed development implying that there would be minimal parking impacts on the Chippendale local area.

GTA Consultants used the information provided from the PBAI Report in relation to the location and supply of on-street parking within Chippendale and included this information on a base plan prepared for this study.

4.9 Initial Stakeholder Consultation

GTA consulted with Sydney Buses, the Roads and Traffic Authority (RTA), NSW Police and Emergency Services during the development of the LATM proposals.

Sydney Buses main issues in this area related to bus services delays due to traffic congestion on the arterial road network. No public bus services travel through the Chippendale study area.

The RTA provided initial feedback as follows:

- City Road/Cleveland Street intersection - Currently experience problems in getting the traffic to flow so any proposals in the LATM scheme should not reduce the efficiency of this intersection; and
- City Road signal controlled pedestrian crossing (At Myrtle Street) – RTA has previously advised Council that they would not be supportive of another set of pedestrian traffic signals across City Road. Signalised pedestrian crossings are provided across Cleveland Street at the Cleveland/City intersection and across City Road at the City/Parramatta Road intersection which enables pedestrians to access the park.

4.10 Summary of Key Traffic and Transport Issues in Chippendale

The key traffic and transport issues are:

- Based on the peak hour traffic volumes obtained from the surveys, traffic volumes within Chippendale are generally within acceptable levels with the exception of Meagher Street (387 veh/hr);
- Based on the 85th percentile speeds obtained from surveys, traffic speeds within Chippendale are generally within the acceptable levels for local streets with the exception of Meagher Street (42km/h) , Shepherd Street (47 km/h) and Buckland Street (48km/hr);

- There were two main through traffic routes identified which included the westbound route of Meagher Street, Myrtle Street and Buckland Street, and the southbound route of Buckland Street, Grafton Street and Shepherd Street;
- A G-turn route was identified with traffic using Buckland Street, Blackfriars Street and Abercrombie Street;
- The key accident location within the study area is the intersection of Abercrombie Street, Meagher Street and Myrtle Street where 10 accidents occurred over the 5 year period to 2006;
- There is insufficient provision of on-road bicycle facilities or bicycle parking on the local roads of Chippendale;
- The main pedestrian desire lines identified include the North/South routes of Abercrombie Street, Buckland Street and Shepherd Street and the East/West routes of Broadway, Myrtle and Meagher Streets;
- There is a lack of pedestrian facilities on the local roads adjoining the arterial road network;
- There is not enough safe pedestrian crossings linking the surrounding and internal parks; and
- The demand for on-street car parking in Chippendale is high and may give rise to increase on street car parking demand following the development of the CUB site.

5. Review of Existing LATM Measures

5.1 Existing LATM Measures

GTA Consultants prepared an inventory of the existing LATM measures within the Chippendale study area primarily as the basis for developing new LATM measures for Chippendale. These existing measures (refer Table 5.1) were implemented as a result of previous studies undertaken to address issues of speed and traffic volumes within the local streets of Chippendale. These existing measures were included on a plan prepared by GTA Consultants and formed the basis for developing further LATM proposals.

Table 5.1: Existing Traffic Management Measures

Type	Location Details
Road Closure	Shepherd Street – Between Grafton Lane and Broadway Beaumont Street – Between Dangar Place and Buckland Street Myrtle Street – Between Pine Street and Buckland Street Smithers Street – Between Levey Street and Level Street Balfour Street – At Cleveland Street
Raised Central Median	City Road, Cleveland Street, Regent Street and Broadway
One Way	Knox Street, Abercrombie Street, Dick Street, Wellington Street and Bartley Street
Shared Zone	Dick Street
Footpath Extensions	Buckland Street/Myrtle Street Shepherd Street/Daniel Street Myrtle Street/Pine Street Beaumont Street/Cleveland Street Myrtle Street/Wiley Street
Pedestrian Crossing	Buckland Street north of Blackfriars Street
Roundabout	Meagher Street/Balfour Street Myrtle Street/Shepherd Street Myrtle Street/Rose Street
Kerb Blisters	Abercrombie Street
Speed hump	Myrtle Street west of Wiley Street
On Street Parking	All local streets within the study area
Turn Bans	Myrtle Street/Meagher Street (no through) Cleveland Street/Shepherd Street (no right turn) Cleveland Street/Beaumont Street (no right turn) Cleveland Street/Wiley Street (no right turn)
Pedestrian Refuge	Meagher Street east of Abercrombie Street

5.2 Review of existing LATM measures

GTA Consultants used two forms of assessment to review the effectiveness of the existing LATM measures. The first included an overview of the existing 2007 traffic volume and speed data and the second included undertaking some SIDRA traffic modelling at intersections where existing LATM measures were already in place. GTA Consultants also reviewed the existing measures against the current design guidelines in relation to spacing of traffic management devices to achieve the desired mean speeds.

5.2.1 Traffic Volumes and Speed

The existing traffic volume and speed data identified only a small percentage of streets which were approaching or exceeding their environmental performance standards. In general, the existing LATM measures were working effectively.

5.2.2 Intersection (SIDRA) Modelling

The operation of the following four intersections were assessed using SIDRA INTERSECTION 3.0[5], a computer based modelling package used to calculate intersection performance:

- Meagher Street/Balfour Street; (Roundabout);
- Myrtle Street/Rose Street; (Roundabout);
- Myrtle Street/Shepherd Street; (Roundabout); and
- Abercrombie Street/Myrtle Street/Meagher Street (Cross Intersection).

The commonly used measure of intersection performance, as defined by the RTA, is vehicle delay. SIDRA INTERSECTION 3.0 determines the average delay that vehicles encounter and provides a measure of the level of service.

Table 5.2 shows how SIDRA INTERSECTION 3.0 adopts the following criteria for level of service.

[5] Program used under license from Akcelik & Associates Pty Ltd.

Table 5.2: SIDRA INTERSECTION 3.0 Levels of Service

Level of Service (LOS)	Average Delay per vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way & Stop Sign
A	Less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Near capacity	Near capacity, accident study required
E	57 to 70	At capacity, at signals incidents will cause excessive delays	At capacity, requires other control mode
F	Greater than 70	Extra capacity required	Extreme delay, major treatment required

Tables 5.3 to 5.6 provide a summary of the SIDRA INTERSECTION 3.0 analysis for the 4 intersections.

Table 5.3: Meagher Street/Balfour Street – Existing Operating Conditions

Peak Period	Approach	Critical Turning Movements			
		Degree of Saturation (DOS)	Average Delay (sec)	95th Percentile Queue (m)	Level of Service
AM Peak	Balfour Street – South	0.004	9.8	0	A
	Meagher Street – East	0.129	6.1	5	A
	Balfour Street – North	0.016	5.9	1	A
	Meagher Street – West	0.05	4.9	2	A
PM Peak	Balfour Street – South	0.008	10.4	0	A
	Meagher Street – East	0.166	5.7	7	A
	Balfour Street – North	0.033	6.8	1	A
	Meagher Street – West	0.045	6	2	A

Table 5.4: Myrtle Street/Rose Street – Existing Operating Conditions

Peak Period	Approach	Critical Turning Movements			
		Degree of Saturation (DOS)	Average Delay (sec)	95th Percentile Queue (m)	Level of Service
AM Peak	Rose Street – South	0.024	8.9	1	A
	Myrtle Street – East	0.011	8.3	0	A
	Rose Street – North	0.013	8	0	A
	Myrtle Street – West	0.054	7.7	2	A
PM Peak	Rose Street – South	0.019	9.2	1	A
	Myrtle Street – East	0.027	7.5	1	A
	Rose Street – North	0.017	7.7	1	A
	Myrtle Street – West	0.06	6.9	2	A

Table 5.5: Myrtle Street/Shepherd Street– Existing Operating Conditions

Peak Period	Approach	Critical Turning Movements			
		Degree of Saturation (DOS)	Average Delay (sec)	95th Percentile Queue (m)	Level of Service
AM Peak	Shepherd Street – South	0.06	6.7	3	A
	Myrtle Street – East	0.023	5.9	1	A
	Shepherd Street – North	0.042	4.9	2	A
	Myrtle Street – West	0.064	5.5	2	A
PM Peak	Shepherd Street – South	0.025	6.7	1	A
	Myrtle Street – East	0.022	6.1	1	A
	Shepherd Street – North	0.052	6.4	2	A
	Myrtle Street – West	0.06	5.4	2	A

On the basis of the above assessment, the SIDRA results indicated that the 3 intersections under roundabout control currently operate well with minimal queues and delays in both the AM and PM peak periods.

Table 5.6: Abercrombie Street / Meagher Street– Existing Operating Conditions

Peak Period	Approach	Critical Turning Movements			
		Degree of Saturation (DOS)	Average Delay (sec)	95th Percentile Queue (m)	Level of Service
AM Peak	Abercrombie Street – South	0.3	0.5	0	A
	Meagher Street – East	1.132	212.8	135	F
	Myrtle Street - West	0.57	50	19	D
PM Peak	Abercrombie Street – South	0.263	0.3	0	A
	Meagher Street – East	1.2	245.8	214	F
	Myrtle Street - West	0.255	32.4	8	C

The analysis of the operation of the Abercrombie Street/Myrtle Street/Meagher Street intersection indicates, on the basis of the SIDRA INTERSECTION model, a very poor level of service with unacceptable queues and delays during both the AM and PM peak periods. This result, however, has to be tempered by the fact that the model does not account for platooning of traffic which typically results in larger gaps created along, in this case, Abercrombie Street by the operation of the downstream signalised intersection of Cleveland Street/Abercrombie Street.

In reality, on-site observations indicate that there are significant gaps created on Abercrombie Street by this downstream intersection with sufficient capacity for left turning traffic exiting both Myrtle and Meagher Streets.

6. Chippendale 2007 LATM

6.1 Introduction

Sections 1-5 of this report have informed the development of the LATM measures proposed. The extent and level of LATM measures proposed are reflective of the relatively low level of traffic and speed issues that exist within the study area but these measures should, nevertheless, go some way towards addressing the remaining traffic issues within Chippendale.

GTA Consultants have also assessed the appropriateness of the Improvement Plan proposals and, where required, incorporated these into the overall LATM recommendations.

6.2 Chippendale LATM Objectives and Principles

6.2.1 Key Objectives

Given the preceding analysis, the key objectives for the framing of the LATM proposals arising from the study were to:

- Reduce Traffic Speed in Meagher Street, Buckland Street and Shepherd Street; and
- Reduce Traffic Volume in Meagher Street.

In addition, it was important to consider additional measures which would improve pedestrian and cycle connectivity/amenity within the Chippendale study area.

6.2.2 LATM Design Principles

The following design principles have been adopted for the LATM treatments in Chippendale:

- Measures should minimise the loss of on-street parking, where possible, given the high demand for parking in Chippendale;
- Measures should limit vertical changes in grade, where possible, due to noise and inconvenience issues created by such measures;
- Measures should consider the needs of cyclists in terms of accessibility and safety;
- Measures should consider the needs of pedestrians in terms of accessibility and safety; and
- Measures should, where suitable, provide opportunities for further landscaping to improve and compliment the current character of Chippendale.

6.2.3 Proposed LATM Measures

GTA Consultants have used the **Austroads Guide to Traffic Engineering Practice Part 10 - Local Area Traffic Management, 2004** to select the appropriate LATM treatments which address the various issues identified within this report. These guidelines provide a clear indication of the types of treatments available, which issues they best address and what the advantages and disadvantages of each treatment are. They have provided a good basis for developing LATM measures for Chippendale.

A description of the LATM treatments for Chippendale and further supporting analysis are provided below. The overall concept proposals are indicated in Figure 6.8 with further detail of the proposals provided in Appendix C**.**

Table 6.1 provides details of the positive and negative impacts of the LATM treatments proposed for Chippendale.

6.3 Chippendale LATM Concept Proposals

6.3.1 MEAGHER STREET

The traffic issue identified in Meagher Street was a combination of volume and speed which could be attributed to traffic avoiding the nearby congested intersections on the arterial road network. The width of Meagher Street (9 - 10m) and distance between Regent Street and Balfour Street, where no traffic calming devices exist, also contributes to the tendency of traffic to speed along Meagher Street. Details of the measures proposed along Meagher Street are described below.

Intersection Regent Street/Meagher Street – Pedestrian Crossing & Kerb Extensions (Refer Figure 6.1 in Appendix C)

The purpose of this treatment is to reduce speed at the intersection and provide pedestrians with a safer crossing facility at this location. It should be noted that the road narrowing should still allow access by larger service vehicles.

Preliminary surveys indicate that a pedestrian crossing would meet the requirements of the reduced RTA warrants, details of which are provided in Appendix E.

Intersection Meagher Street/Chippen Street - Modified T-Intersection/Kerb Blisters (Refer Figure 6.1 in Appendix C)

The purpose of this treatment is to reduce speed at mid-block along Meagher Street, to provide some further protection for parked cars and to reduce the crossing distance for pedestrians across Chippen Street (South). It is important to note that this treatment would result in the loss of some car parking spaces but should not restrict access for larger service vehicles.

6.3.2 MEAGHER STREET/ABERCROMBIE STREET/MYRTLE STREET TRAFFIC SIGNAL INTERSECTION

The signalling of this intersection is necessary primarily to provide a pedestrian crossing across Abercrombie Street and provide safer links between open spaces within Chippendale. The signals should also assist in physically enforcing the banned east/west cross vehicle movement, should safely accommodate the east and westbound bicycle movements and should eliminate the current accident issues that have occurred at this location over the last 5 years.

It is important to note that any traffic signals proposed on the RTA arterial road network would require RTA approval prior to proceeding. One criterion required for justifying the provision of signal controlled pedestrian crossings is that it is warranted if 3 or more pedestrian accidents have occurred at the location. In the case of this location, although there have not been 3 or more pedestrian crossings specifically at this location there has been 3 pedestrian accidents in relatively close proximity along Abercrombie Street.

The actual design of this treatment is subject to further discussion with the RTA and the City of Sydney.

6.3.3 BUCKLAND STREET

The traffic issue identified in Buckland Street was one of speed primarily which could be attributed to the fact that the southern part of Buckland Street is relatively wide at approximately 11.0m and relatively straight. In terms of design treatments for Buckland Street the following measures have been developed:

Intersection Buckland Street/Broadway – Pedestrian Crossing

The purpose of this treatment is to reduce speed at the intersection and provide pedestrians with a safer crossing at this location. It should be noted that this treatment should not restrict access for larger service vehicles. Preliminary surveys indicate that the pedestrian crossing would meet the requirements of the reduced RTA warrants.

Convert Existing marked Pedestrian Crossing into a Raised Threshold Pedestrian Crossing (North of Blackfriars Road)

The purpose of this treatment is to reduce speed at mid-block along Buckland Street and provide pedestrians with a safer east/west crossing of Buckland Street.

Kerb Blisters

The purpose of this treatment is to reduce speeds by narrowing the width of the available carriageway and also providing further protection to parked cars along Buckland Street. It is proposed to provide kerb blisters wherever possible along Buckland Street, the extent of which would be determined during the detailed design stage.

Footpath Widening/Road Narrowing (Between Paints Lane and Daniel Street)

The purpose of this treatment is to improve pedestrian safety together with acting as a further speed reducing measure by narrowing the existing carriageway.

The current road width along this section of Buckland Street is approximately 10.7m with car parking provided on both sides. It has been determined that by providing two 2.75m traffic lanes and maintaining car parking (2.1m x 2) on both sides of Buckland Street would allow a widening of 1.0m to occur along this section of Buckland Street.

It should be emphasised that Buckland Street to the north of Blackfriars Street has a carriageway width of some 9.2m (1.5m less than the southern end of Buckland Street) with car parking on both sides and continues to operate satisfactorily. It should also be noted that current design guidelines for residential sub-divisions (AMCORD) allow a minimum carriageway width of 5.5m kerb to kerb which can cater for a truck and car to pass side by side.

6.3.4 SHEPHERD STREET

The traffic issue identified in Shepherd Street was also one of speed which could be attributed to the fact that there are opportunities for southbound traffic to have a continuous run between Grafton Lane and Myrtle Street without anything to reduce their speeds. It has also been identified that Shepherd Street is potentially being used by traffic trying to avoid the City Road/Broadway intersection. In terms of design treatments for Shepherd Street the following measures have been developed:

Intersection Improvements Shepherd Street/Daniel Street (Refer Figure 6.2 in Appendix C)

GTA Consultants identified that currently vehicles travelling southbound on Shepherd Street (North of Daniel Street) can proceed through the intersection without a need to divert from their straight travel path resulting in speeds above the posted 40km/hr speed limit. Shepherd Street further south is also a straight road allowing these vehicles to continue at speed until the roundabout at Myrtle Street.

This treatment includes the provision of a more permanent but mountable traffic island or raised pavement markers and line marking to provide a deflection for southbound vehicles.

Speed Cushions – Between Daniel Street and Myrtle Street

The purpose of this treatment is to reduce speed at mid-block along Shepherd Street. Speed cushions are the preferred treatment type given that this is on the proposed local bicycle network.

6.3.4.1 INTERSECTION CITY ROAD/MYRTLE STREET – Kerb Extension and Pedestrian Refuge Island (Western End) (Refer Figure 6.3 in Appendix C)

The proposed treatment would reduce speed at the intersection as it would reduce the entry/exit carriageway width. It does not include a formal pedestrian crossing as the results of the surveys indicated that the RTA Warrants for a formal pedestrian crossing could not be met. This treatment should also not restrict access by larger service vehicles.

6.3.5 CITY ROAD/MYRTLE STREET SIGNAL CONTROLLED PEDESTRIAN CROSSING

This treatment is important for pedestrians as it would provide a direct east/west pedestrian link between Victoria Park, the existing Peace Park, and the future proposed Balfour Park and the CUB site.

It is again subject to the approval of the RTA who has already indicated to Council that they would not support it as a consequence of City Road traffic capacity requirements in conjunction with recent proposals for the installation of north and southbound bus lanes on City Road.

6.4 Balfour Street Closure

The closure of Balfour Street between O'Connor Street and Wellington Street has already been adopted by the City of Sydney with the intention that this would become a park in the not so distant future. It should also be noted that the through route to Broadway on Balfour Street has been restricted for some time now as part of the redevelopment proposals for the Carlton United Breweries site which has not caused any issues.

The impacts that this closure would have on both resident access and traffic would be minimal. The current traffic volumes on O-Connor Street and Wellington Street are very low and are unlikely to cause any future traffic issues on surrounding streets as a consequence of traffic seeking alternative routes. The closure would have a minor affect on access to O'Connor Street (between Abercrombie Street and Balfour Street) from the south-east but there are still easy alternatives available.

The future park would provide the residents of the eastern part of Chippendale with a facility that is not currently available.

6.5 RTA Warrant Assessment

GTA Consultants reviewed the existing traffic and pedestrian volumes at the three locations of Meagher Street/Regent Street, Broadway/Buckland Street and Myrtle Street/City Road, where formal pedestrian crossings were proposed, against the RTA's warrant criteria to ascertain whether or not they could be justified on this basis.

The RTA Warrants for formal pedestrian crossings state the following:

"A marked foot crossing may be installed if at least 50% of pedestrians using the crossing are aged or have a mobility difficulty and for each of three one hour periods in a typical day:

i *P is greater than or equal to 30 &*
ii *V is greater than or equal to 200"*

Figure 6.6 and 6.7 in Appendix D provides the location and associated traffic and pedestrian volumes for all sites in Chippendale which require an RTA warrant assessment.

Appendix E provides details of the RTA warrant assessment criteria for the various types of pedestrian facilities.

GTA Consultants assessment of the RTA Warrants indicated that two of the three sites would meet the reduced RTA Warrants criteria for formal pedestrian crossings at Meagher Street/Regent Street and Broadway/Buckland Street but not at Myrtle Street/City Road. It is noted that in terms of the individual pedestrian and traffic volume components the warrants were exceeded in full or part at all three locations. It is important to note that the pedestrian volumes across Buckland Street were extremely high, in the order of 500 movements in the AM peak hour and 900 movements in the PM peak hour which in itself should warrant the need to improve safety here.

CHIPPENDALE 2007 LATM STUDY
Table 6.1 - LATM CONCEPT PROPOSALS IMPACTS TABLE

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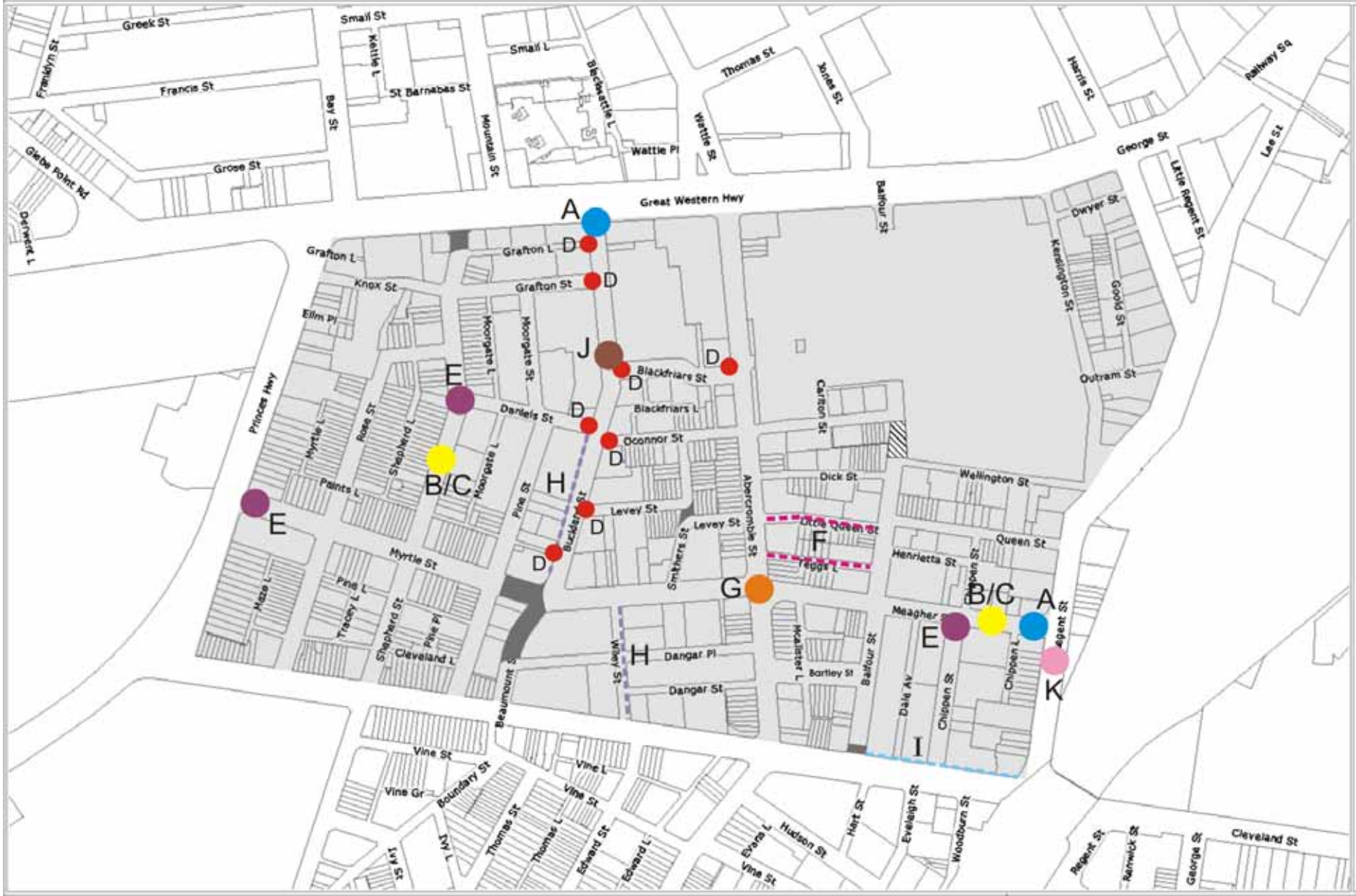
		IMPACTS		
TREATMENT TYPE AND REFERENCE	CHIPPENDALE PROPOSED LOCATIONS	POSITIVE	NEGATIVE	COMMENTS
A- FORMAL PEDESTRIAN CROSSINGS	1. Intersection Regent Street/Meagher Street 2. Intersection Broadway/Buckland Street	Reduces Traffic Speeds Discourages Through Traffic Increases Pedestrian Safety Reduces Crash Risk	Traffic noise may increase due to braking, acceleration and the vertical displacement of vehicles. May restrict emergency and commercial vehicle access Uncomfortable for drivers and cyclists	Meet the reduced RTA Warrants
B- ROAD HUMPS	3. Meagher Street (Between Chippen Lane and Chippen Street 4. Shepherd Street (Between Daniel Street and Myrtle Street)	Reduces Traffic Speeds Discourages Through Traffic Reduces Crash Risk Low Installation Cost	Traffic noise may increase due to braking, acceleration and the vertical displacement of vehicles. Uncomfortable for drivers and cyclists.	
C- ROAD CUSHIONS (Preferred Option)	5. Meagher Street (Between Chippen Lane and Chippen Street 6. Shepherd Street (Between Daniel Street and Myrtle Street)	Reduces Traffic Speeds Discourages Through Traffic Reduces Crash Risk Does not restrict or discomfort cyclists and can be designed so they do not inconvenience commercial vehicles Low Installation Cost	Less effective in slowing vehicles with a wide wheel track or motorcyclists. Drivers can reduce their effect by traversing the cushions with only two wheels.	
D- LANE NARROWING/KERB EXTENSIONS	7. Buckland Street (7 Locations) 8. Meagher Street (2 Locations Max)	Reduces Traffic Speeds Increases Pedestrian Safety Improves vehicle sight lines at intersections. Reduces Crossing Distances for Pedestrians Provides protection and deliniation for parked cars. Provides opportunities for landscaping. Low Installation Cost	May restrict commercial vehicle access. May introduce squeeze points for cyclists. Less effective than other LATM measures.	
E- MODIFIED INTERSECTIONS	9. Intersection Chippen Street/Meagher Street 10. Intersection Shepherd Street/Daniel Street 11. Intersection City Road/Myrtle Street	Reduces Traffic Speeds Discourages Through Traffic Reduces Crash Risk	May introduce squeeze points for cyclists. Results in the loss of on street car parking	
F- SHARED ZONES	12. Teggs Lane 13. Little Queen Street	Reduces Traffic Speeds Discourages Through Traffic Increases Pedestrian Safety by Providing Pedestrian Priority Improves Amenity without Affecting Access	Can be costly depending on treatment applied Drivers may not observe the 10km/hr speed restriction when pedestrian usage is low. Requires education and enforcement	
G - TRAFFIC SIGNALS/SIGNAL CONTROLLED PEDESTRIAN CROSSINGS	14. Intersection Myrtle Street/Abercrombie Street/Meagher Street	Reduces Traffic Speeds Discourages Through Traffic Increases Pedestrian and Cyclist Safety Reduces Crash Risk	High Installation Costs May increase delay on the main road.	Requires RTA Approval. (State Road) Required to meet RTA Warrants
H - FOOTPATH WIDENING	15. Buckland Street (Between Paints Lane and Daniel Street) 16. Wiley Street Eastern Side (Between Myrtle Street and Cleveland Street)	Increases Pedestrian Safety & Amenity Reduces Traffic Speeds	High Installation Costs Removal of on-street car parking.	
I - SHARED PEDESTRIAN/CYCLEWAY	17. Cleveland Street (Between Balfour Street and Regent Street)	Provides legal facility for cyclists to access Prince Albert Park.	Can increase pedestrian/cyclist conflicts as cycle use increases.	
J - RAISED THRESHOLD PEDESTRIAN CROSSING	18. Buckland Street (North of Blackfriars Street)	Reduces Traffic Speeds Discourages Through Traffic Increases Pedestrian Safety Reduces Crash Risk	Traffic noise may increase due to braking, acceleration and the vertical displacement of vehicles. May restrict emergency and commercial vehicle access Uncomfortable for drivers and cyclists	
K - AM/PM BANNED TURN	19. Left Turn From Regent Street into Meagher Street. 20. Left Turn from Blackfriars Street into Abercrombie Street (In conjunction with kerb extension on northern side of Blackfriars Street) 21. Left Turn from O'Connor Street into Abercrombie Street (In conjunction with kerb extensions on northern side of Blackfriars Street)	Reduces Traffic Volumes Reduces Traffic Speeds Increases Pedestrian Safety Reduces Crash Risk Minimal Installation and Maintenance Costs	Restricts Residential Access. May divert traffic onto surrounding streets (i.e Queen Street) Not self enforcing so may require Police enforcement. Turns at less safe places may occur as a consequence.	Requires RTA Approval. (State Road)

Figure 6.8: LATM Concept Proposals

GTAconsultants



- A - Formal Ped Crossings (At-Grade)
- B - Speed Humps
- C - Speed Cushions
- D - Kerb Blisters
- E - Modified Intersection Treatment
- F - Shared Zones
- G - Traffic Signals
- H - Footpath Widening
- I - Shared Ped/Cycleway
- J - Raised Threshold Ped Crossing
- K - AM/PM Peak Banned Turn
- Road Closure (adopted by Council)

Client: City of Sydney
CHIPPENDALE LATM TRAFFIC STUDY

Figure 6.8: LATM Concept Proposals

6.6 Cyclists

6.6.1 Proposed Bicycle Network

The Improvement Plan recommended a series of bicycle routes through Chippendale as indicated in Figure 4.10.

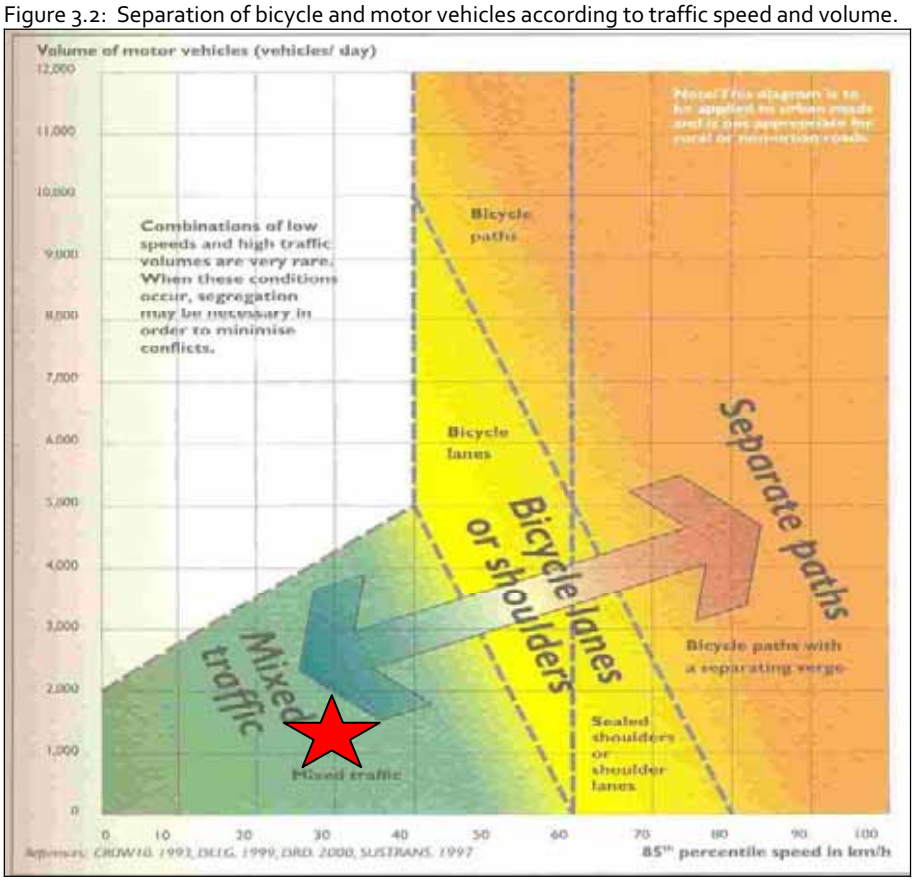
GTA Consultants recommends that this bicycle network be rationalised to provide one local network for Chippendale which is based on routes which can be directly linked with existing crossings of the arterial road network. It is recommended that the local bicycle network consist of Balfour Street and Shepherd Street for the north/south routes and Meagher Street and Myrtle Street for the east/west route. This proposed local bicycle network is provided in Figure 6.9.

6.6.2 Proposed Bicycle Facilities

Bicycle Route Facilities

The relationship between the prevailing traffic speed and volume is an important factor in the decision to provide specific bicycle facilities along a route. The ***RTA's NSW Bicycle Guidelines 2003, Figure 3.2*** below provides guidance on the selection of the appropriate type of bicycle facility to determine whether or not it should be a separate or mixed traffic facility.

Figure 3.2: Separation of bicycle and motor vehicles according to traffic speed and volume.



Traffic volumes and speeds on Chippendale local roads are within this zone.

In the case of Chippendale the speeds and volumes along the roads designated as local bicycle routes, and in fact on all roads within Chippendale, are of a level which would allow safe travel by cyclists on mixed traffic routes. Furthermore the existing road widths are simply not sufficient to accommodate designated bike lanes without the need to remove car parking.

As such it is recommended that on-road bicycle logos and signage be provided along the routes identified by GTA Consultants as local bicycle routes in Chippendale.

Bicycle Parking Facilities

There is very little bicycle parking in Chippendale. Bicycle racks have been provided in the vicinity of the Shepherd Street closure at Broadway. It is recommended that further bicycle parking be provided within Chippendale initially at the following 5 locations.

- Meagher Street/Abercrombie Street Intersection;
- Abercrombie Street Intersection;
- Balfour Street Road Closure (Southern End);
- Peace Park; and
- Balfour Park (If and when constructed).

These locations would serve those cyclists wishing to visit the recreational areas and coffee shops/cafes in and around Chippendale.

Figure 6.9: Proposed Local Bicycle Network

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City of Sydney Bicycle Strategy Network - Future

Chippendale Local Bicycle Network

Chippendale Local Bicycle Network - Future Links

Client: City of Sydney
CHIPPENDALE LATM TRAFFIC STUDY

Figure 6.9: Proposed Local Bicycle Network

6.7 Pedestrians

GTA Consultants have identified a number of locations along the primary and secondary pedestrian desire lines where the provision of pedestrian facilities would improve safety and connectivity. These facilities range from simple pram ramps to footpath widening and signal controlled pedestrian crossings which are described in further detail below:

6.7.1 North/South Pedestrian Desire Lines

Buckland Street Footpath Widening (Between Paints Lane and Daniel Street)

It is proposed to widen the footpath on the west side of Buckland Street to improve pedestrian safety and accessibility. This location is one of the most critical in terms of inadequate footpath widths as it links Peace Park and Broadway in the north/south direction.

Buckland Street (North of Blackfriars Street) Raised Threshold Formal Pedestrian Crossing

It is proposed to upgrade the existing formal pedestrian crossing on Buckland Street north of Blackfriars Street by way of a raised threshold to provide a safer crossing from the east to west side of Buckland Street.

Myrtle Street West (At City Road) – Pedestrian Refuge

It is proposed to provide a pedestrian refuge at the intersection of City Road and Myrtle Street to allow a safe north-south crossing of Myrtle Street.

Meagher Street (At Regent Street) – Pedestrian Crossing

It is proposed to provide a wombat crossing at the intersection of Meagher Street and Regent Street to allow a safe north-south crossing of Meagher Street.

6.7.2 East/West Pedestrian Desire Lines

Buckland Street/Broadway – Pedestrian Crossing

It is proposed to provide a formal pedestrian crossing on Buckland Street at Broadway. Pedestrians using Broadway would benefit from increased safety at the Buckland Street intersection with the installation of this formal pedestrian crossing.

Myrtle Street/Abercrombie Street/Meagher Street - Signal Controlled Pedestrian Crossing

It is proposed to provide a safe pedestrian crossing at the intersection of Abercrombie Street/Meagher Street/Myrtle Street with the installation of traffic signals at this intersection.

Meagher Street – Pedestrian Pram Ramps

It is proposed to provide pedestrian pram ramps and possibly small kerb extensions on the western arm of Balfour Street to allow a safer pedestrian crossing across Meagher Street ensuring that there will be a continuos route between the future Balfour Park and Peace Park.

6.8 Urban Design/Landscaping

Urban design consultants EDAW were also employed by Council on this project to assist with the urban design and landscaping aspects of the proposals. Their involvement in this stage of the project, although small, has been important in providing a more strategic overview specifically in relation to land uses, street character and the potential for community initiatives within the Chippendale area.

EDAW have identified the need to engage the Chippendale community more by introducing initiatives such as having community markets at specific locations, organising on-street business events, providing entry points which are designed in such a way that they provide a distinct Chippendale look and introducing further landscaping. Plan No. SK04B (Refer Appendix F) details schematically some of these potential initiatives for Chippendale.

It should be noted that EDAW would have a more prominent involvement during the detailed design stage of this project.

7. Community Consultation

7.1 Introduction

A community workshop, which was facilitated by consultants KJA, was organised and held at the Citigate Hotel on the 10th May 2007 between 6pm and 8pm to present and discuss the outcomes of the most recent LATM study undertaken by GTA Consultants for the Chippendale area. It was also an opportunity to explain and educate the community about the LATM process and approval procedures and requirements in relation to some of the draft proposals developed as part of the LATM study.

The main objective of the workshop was as follows:

i To update the community on the status of the Chippendale Improvement Plan;
ii To present the key findings and draft LATM proposals;
iii To obtain feedback in relation to the draft LATM proposals; and
iv To identify any further traffic issues which could be included within the current LATM study.

GTA Consultants prepared a presentation plan of all the LATM proposals (Refer Appendix G) which was used as the basis for the community workshop. This workshop was attended by some 19 people.

7.2 Key Consultation Outcomes

Overall the workshop attendees were supportive of the majority of the proposed LATM treatments and indicated that they adequately addressed the traffic related issues in Chippendale.

However the following additional issues were raised in relation to the LATM study:

i Need to investigate further traffic issues in Blackfriars Street.
ii It was identified that there was through traffic using Blackfriars Street as part of a G-Turn to access Wattle Street from the east along Broadway. At present traffic cannot turn right into Wattle Street from Broadway;
iii Need to investigate further traffic issues in Wiley Street;
iv It was identified that the width of Wiley Street and the limited opportunity for two vehicles to pass side by side when cars were parked on one side of Wiley Street was problematic; and
v Need to update the accident analysis data to reflect the latest 5 year period available[6].

GTA Consultants subsequently investigated further the traffic issues raised above with the outcomes of this work explained in further detail overleaf:

Further detail of the community consultation outcomes is contained in a separate report prepared by Consultants KJA.

6 Refer Section 4.6 for updated accident analysis information.

7.3 Additional LATM Concept Proposals

7.3.1 Blackfriars & O-Connor Streets

In terms of design treatments for Blackfriars Street and O'Connor Street the following measures have been proposed:

7.3.1.1 Blackfriars Street/Abercrombie Street Intersection - Point One Way (Left In Only Permitted) (Refer Figure 6.4 in Appendix C)

The proposed treatment would primarily involve introducing a left-in only arrangement or what is commonly referred to in traffic engineering terms as a "point on way" at the intersection of Blackfriars Street and Abercrombie Street. This would be achieved by a combination of kerb extensions and "No Entry "signage which would visually and physically delineate the left-in only arrangement. This should go some way in removing the existing G-Turn issue but also reduce the probability of conflict between east and westbound vehicles travelling on Blackfriars Street and Abercrombie Street. It should be noted that this proposal would have implications for resident egress as they would no longer be able to exit Blackfriars Street into Abercrombie Street but instead would have to find alternative routes.

In addition to the above treatment GTA Consultants also identified a need to provide centre line marking on the S-bend of Blackfriars Street to encourage vehicles to travel within their designated lanes therefore reducing the opportunity for conflict and improving traffic safety. This treatment does however result in the need to remove some on-street parking on both sides of Blackfriars Street at the location of the S-bend as indicated in Figure 6.4 in Appendix C.

7.3.1.2 O'Connor Street/Abercrombie Street Intersection - Point One Way (Left In Only Permitted) (Refer Figure 6.4 in Appendix C)

As is often the case with proposals like that proposed for Blackfriars Street where access is restricted the likely consequence is that traffic would seek out alternative routes to perform the same manoeuvres as before. In this case O'Connor Street would be the obvious choice for diverted traffic necessitating the introduction of similar measures as proposed on Blackfriars Street to ensure that the G-Turn traffic issue is not simply transferred into O'Connor Street. It is therefore proposed to introduce a left-in only treatment at the intersection of O'Connor Street and Abercrombie Street. This would also be achieved by a combination of kerb extensions and "No Entry "signage which would visually and physically delineate the left-in only arrangement. As is the case for Blackfriars Street this proposal would have implications for resident egress as they would no longer be able to exit O'Connor Street into Abercrombie Street but instead would have to find alternative routes.

7.3.2 Wiley Street

Currently Wiley Street operates as a two way road with parallel parking on the western side. It is only 6.3m wide which results in opposing vehicles not being unable to pass one another when "all day" kerbside parking occurs. This issue is exacerbated by the existing kerb extensions which physically narrow the carriageway to 4.8m at the Buckland Street and Dangar Avenue Intersections. Parking south of Dangar Avenue is however restricted to 1 hour parking only allowing some opportunities for passing when, at times, these spaces are free of parked cars.

In terms of design treatments for Wiley Street the following measures have been proposed:

7.3.2.1 Wiley Street – Removal of On-Street Car Parking and Kerb Extensions (Refer Figure 6.5 in Appendix C)

The proposed treatment would involve the provision of more waiting areas or to increase the availability of passing opportunities by the extension of existing or introduction of new "no stopping" restrictions together with the removal of existing physical pinch points at various locations along Wiley Street. This would result in the loss of some 6 car parking spaces but also allows the opportunity to widen the eastern footpath by approximately 0.8m and to provide an overall 5.5m carriageway width. This treatment should alleviate the traffic issues currently experienced in Wiley Street. Details of the proposed treatment are shown in Figure 6.5 in Appendix C.

7.4 Public Submissions

In addition to the feedback received at the community workshop there were also a total of 10 written submissions received during the public exhibition period which have been summarised based on the key issues raised as indicated in Table 7.1.

Table 7.1: Public Submissions Summary Table

Submission No	Street Address (If applicable)	Key Issues/Concerns	GTA Response
1.	Myrtle Street	1. Pedestrian Safety at Paints Lane and crossing to Peace Park. 2. Through traffic via Wiley Street 3. Increase soft landscaping within LATM treatments 4. Impose timed parking throughout Chippendale	1. The LATM treatments on Buckland Street (Blisters and Footway widening) should go some way to improving safety at Paints Lane. 2. According to the traffic data recorded by GTA Consultants Wiley Street is not a rat run. The Wiley Street issue is caused by the narrowness of the street and lack of passing opportunities when two vehicles approach at the same time. This issue has been investigated further by GTA Consultants and proposals formulated to address this as indicated in Figure 6.5. 3. Wherever possible and relevant soft landscaping will be provided within the LATM treatments 4. All parking issues will be dealt with through a separate study.
2.	Buckland Street	1. Concern for possible increase in left turning traffic into Myrtle Street from Abercrombie Street as a consequence of a traffic signal proposal. 2. Ensure Blisters have planting within them.	1. The left turning traffic movement is not dissimilar to what currently exists and traffic flow figures indicate that this street is not being used heavily as a through route from this direction. 2. Wherever possible and relevant soft landscaping will be provided within the LATM treatments.
3.	Blackfriars Street Residents and Businesses	1. Blackfriars Street – Loss of amenity and dangerous nature of street. This is as a consequence of Wiley Street being used by traffic wanting to access Wattle Street and general geometry and parking on the street.	1. This issue has been investigated further and proposals formulated to address this as indicated in Figure 6.4
4.	Myrtle Street	1. Concerned about the traffic in the western end of Myrtle Street.	1. Traffic volume and speed data obtained did not highlight any particular traffic issues in this section of Myrtle Street.
5.	Shepherd Street	1. Times of parking restrictions in Shepherd Street are not practical. Should be 1P 8am-6pm, Mon-Sat.	1. All parking issues will be dealt with through a separate study.
6.	Abercrombie Street	1. Opposed to Traffic Signals at the intersection of Abercrombie Street/Meagher Street due to potential queuing outside 106 Abercrombie Street and associated traffic noise and pollution.	1. It is envisaged that the traffic signals at this location could be co-ordinated with the Cleveland Street/Abercrombie Street traffic signals such that there would be minimal queuing on the Abercrombie Street approach to this intersection.

Submission No	Street Address (If applicable)	Key Issues/Concerns	GTA Response
7.	Pine Street	1. In support of controlled pedestrian crossing on City Road at Myrtle Street but would like them made a priority in the implementation program. 2. Suggested that Pine Street was also a rat run and needed treatment. 3. Requested an update on progress with RTA.	1. The RTA has provided further information in relation to the proposal to provide a signal controlled crossing of City Road at Myrtle Street. They have indicated that there are proposals to implement bus lanes in both directions on City Road which would not allow an opportunity to provide a signalled pedestrian crossing as initially proposed due to capacity concerns. 2. Unfortunately not all streets could be surveyed. This would not be cost effective and the surveys which were undertaken provided a fairly good indication of traffic conditions in Chippendale which was sufficient for the study. If required Pine Street could be investigated further, 3. Process for approval is firstly for approval in principle at the City of Sydney Traffic Committee and then for the preparation of more detailed plans for submission to the RTA for further assessment.
8.	Wiley Street	1. Stated that traffic measures were required in Wiley Street as it was part of a rat run.	1. Although Wiley Street is not part of a rat run as indicated by the very low traffic volumes recorded in this street (peak hour flows in the region of 50 vehicles/hour) further measures have been proposed to relieve some of the other traffic issues in Wiley Street.
9.	Moorgate Gardens	1. In full support of the measures proposed.	n/a
10.	Levy Street	1. Is not supportive of the raised threshold pedestrian crossing at Buckland Street/ Broadway intersection as the left turn into Buckland Street is already difficult with the car wash and buses queuing across it.	1. There needs to be a balance found here between the need to provide pedestrian safety in view of the very high pedestrian volumes and the likely delay that this might cause to traffic on Broadway. Moving the crossing off the pedestrian desire line (i.e. Further south on Buckland Street) would not achieve any pedestrian benefits.

8. Cost Estimates & Implementation Program

Cost estimates[7] were determined from information provided in **Austroads Guide to Traffic Engineering Practice Part 10 - Local Area Traffic Management, 2004** and from rates obtained by GTA Consultants on previous projects.

The implementation program has been determined on the basis of priority[8] and cost but also taking into consideration the approval processes required for some of the measures.

8.1 Cost Estimates

Table 8.1 provides a summary of estimated costs of the LATM proposals for Chippendale with a detailed costing provided in Appendix H. This estimate equates to an investment of approximately $330,000 - $346,000 per annum for the next four years.

It should be noted that this excludes the $500,000 already allocated as part of the Chippendale Improvement Plan for the future Balfour Street Park and City Road pedestrian crossing.

7 All cost estimates prepared by GTA Consultants are for broad level or initial feasibility planning only and must not be relied upon for quoting, budgeting or construction purposes. You should seek a detailed cost estimate from a suitably qualified civil engineer or quantity surveyor.

8 Priority of the measures has been based primarily on traffic safety but consideration has also been given to the priority measures identified previously within the Chippendale Improvement Plan.

Table 8.1: Summary of Cost Estimates

Item No.	Street	LATM Measure	Street Priority	Items[9]	Cost
1	Meagher Street	Regent Street/Meagher Street Intersection Upgraded; Meagher Street Traffic Calming; and Meagher Street/Abercrombie Street Intersection Upgrade.	**1**	1.1,1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8,	$433,650
2	Buckland Street	Buckland Street Traffic Calming; and Buckland Street Footpath Widening.	**2**	2.1, 2.2, 2.3, 2.4, 2.5	$413,750
3	Shepherd Street	Shepherd Street Traffic Calming	**3**	3.1,3.2	$27,000
4	City Road/Myrtle Street	City Road/Myrtle Street Intersection Upgrade	**3**	4.1	$35,000
5	Blackfriars Street	Blackfriars Street Traffic Calming	**3**	5.1, 5.2, 5.3	$18,290
6	Wiley Street	Wiley Street Traffic Improvement	**3**	6.1, 6.2, 6.3	$249,150
7	Other Treatments	Bicycle Routes Upgrade; Teggs Lane & Little Queen Street Shared Zone; Cleveland Street Shared Path; and Balfour street Lighting Upgrade	**3**	7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7	$170,750
				Sub Total	$1,364,290
				Contingency (15%)	$204, 644
				Total	**$1,568,934**
Chippendale Improvement Plan Measures					
9	Balfour Street/ O'Connor Street	Balfour Street Closure (Future Open Space/Park)	**n/a**	8.1	$500,000
				Total	**$500,000**

8.2 Implementation Program

Table 8.2 provides an outline 4 year implementation program which Council could use as the basis for allocation of funding as and when it becomes available.

9 Details of these item numbers are provided in Appendix G.

Table 8.1: Summary of Cost Estimates

Item No.	Street	LATM Measure	Street Priority	Items[9]	Cost
1	Meagher Street	Regent Street/Meagher Street Intersection Upgraded; Meagher Street Traffic Calming; and Meagher Street/Abercrombie Street Intersection Upgrade.	**1**	1.1,1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8,	$433,650
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				Sub Total	$1,364,290
				Contingency (15%)	$204, 644
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				Total	**$500,000**

8.2 Implementation Program

Table 8.2 provides an outline 4 year implementation program which Council could use as the basis for allocation of funding as and when it becomes available.

9 Details of these item numbers are provided in Appendix G.

9. Conclusions

The key conclusions of this report are:

- The current traffic conditions in the streets of Chippendale are, on the whole, within acceptable standards;
- The scale and types of the LATM proposals developed within this report reflect the relatively low level of traffic issues identified;
- Formal pedestrian crossings could be installed at two of the three locations identified on the basis of the RTA Warrants and as discussed within this report to improve pedestrian safety;
- Traffic Signals should be installed at the intersection of Abercrombie Street/Myrtle Street/Meagher Street with the actual design subject to further discussion with the RTA and City of Sydney;
- There was general support from the community for the LATM treatments proposed for the Chippendale area;
- The Chippendale Community should be made aware of the most recent information received from the RTA in relation to the signal pedestrian crossing on City Road at Myrtle Street;
- The residents of O'Connor Street should also be made aware of subsequent measures proposed as a consequent of recent City of Sydney comments; and
- The LATM proposals developed should address the large majority of the remaining traffic issues identified and, if implemented, would result in further improvements to public amenity for the Chippendale Community.

Appendix A

appendix a

South Sydney Council – LATM Reference Note and Opportunities and Traffic Management Plans

CAT.7

CHIPPENDALE LATM UPDATE

Refer to plan for Item locations:

1 Shepherd Street, between Broadway and Grafton Lane, was closed with a new drainage system, garden beds, planted trees and decorative pavement within the closure area.

2 Residents did not show strong support for a One-way in either Grafton Street or Daniels Street so it was not carried out especially once the closure of Shepherd Street was implemented.

3 Widened footpaths in Myrtle Street (between Buckland Street and Abercrombie Street) together with additional angle parking were completed. However the proposed footway widening of the western side of Buckland Street between Myrtle Street and Blackfriars Street has not been carried out yet as the road width was not adequate.

4 RTA refused pedestrian treatments (ie crossings or signals) at the intersection of Abercrombie and Myrtle/Meagher Streets as the required warrants were not meet. However a median island on Meagher St east of Abercrombie St was constructed and the median island on Myrtle St west of Abercrombie St was reconstructed with landscaping.

5 Residents did not show strong support for a One-way in either Dangar Street or Dangar Place so it was not carried out. Both streets contained new residential development sites under construction.

6 One –way in Grafton Lane was rejected by local Shop operators as it effected rear delivery operations.

7 Wombat treatment has not been carried out because the school was not operating.

8 Residents did not show strong support for Shared Zones in O'Connor Street and western part of Levey Street.

9 Residents did not show strong support for Shared Zones in the eastern part of Levey Street. The existing one-way and mid-block closure reduced traffic problems so further work was not carried out. However a Shared Zone in Dick St between Abercrombie St and Balfour St, was constructed with sandstone kerb and concrete gutter, reconstructed road pavement with coloured asphalt concrete, and three kerb side islands with landscaping and two raised thresholds

10 Proposed Balfour St closure between Dick St and O'Connor St was rejected by the former City of Sydney. A Shared Zone with a one–way was being considered as an alternative but investigations were not completed before boundary change. Effected by the C.U.B site.

11 Residents did not show strong support for Shared Zones and One-ways in Little Queen Street and Queen Street. RTA did not support proposed measures and so the matter was on hold prior to boundary change.

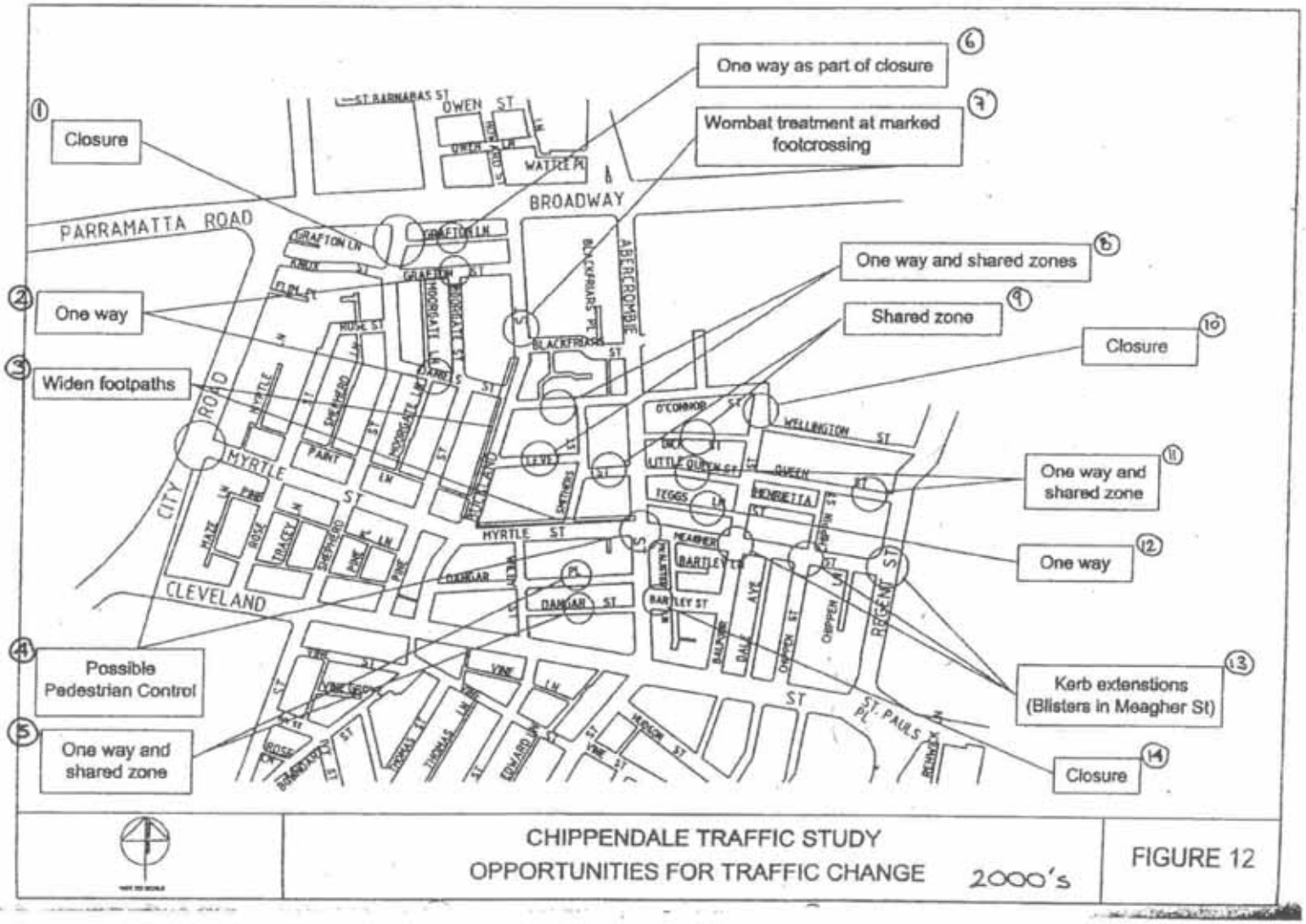
12 Residents did not show strong support for One-way in Teggs Lane (no evidence of use by short-cutting non-local traffic).

13 RTA refused kerb extensions at the corners of Meagher Street with Balfour, Chippen and Regent Streets as they could cause congestion and manoeuvring problems. However as an alternative a roundabout and four kerb side islands was constructed at the intersection of Meagher St/Balfour St. (RTA still wanted Meagher Street available as a possible detour route for traffic going to Abercrombie Street if Cleveland Street was congested)

14 Resident rejected closure of Bartley Street at Abercrombie Street. However as an alternative Bartley Street was made one-way west between Abercrombie Street and McAlister Lane, with footway widening and provision of parking, new kerb & gutter, landscaping, tree planting and laying decorative pavers on footway.

15 Additionally about ten kerbside islands with landscaping were constructed on the eastern side of Abercrombie Street, between Cleveland St and O'Connor St.

update - 1


1 Closure
2 One way
3 Widen footpaths
4 Possible Pedestrian Control
5 One way and shared zone
6 One way as part of closure
7 Wombat treatment at marked footcrossing
8 One way and shared zones
9 Shared zone
10 Closure
11 One way and shared zone
12 One way
13 Kerb extenstions (Blisters in Meagher St)
14 Closure
PARRAMATTA ROAD
BROADWAY
CITY ROAD
CLEVELAND
MYRTLE ST
OWEN ST
ST BARNABAS ST
GRAFTON LN
GRAFTON ST
BLACKFRIARS ST
ABERCROMBIE
HOORGATE LN
HOORGATE ST
ROSE ST
PAINT
MYRTLE
DARLEY
DARLEY ST
MEAGHER
BARTLEY
BARTLEY LN
TEGGS LN
HENRIETTA
QUEEN
WELLINGTON ST
O'CONNOR
LITTLE QUEEN ST
REGENT ST
CHIPPEN ST
CHIPPEN LN
OXFORD ST
BALFOUR
BALFOUR AVE
VINE
VINE LN
THOMAS
EDWARD
HENSON ST
ST PAULS PL
ST PAULS LN
BRUNSWICK
CHIPPENDALE TRAFFIC STUDY
OPPORTUNITIES FOR TRAFFIC CHANGE 2000's
FIGURE 12


BROADWAY DEVELOPMENT
BAY ST
MOUNTAIN ST
OWEN ST
WATTLE ST
PARRAMATTA ROAD
PARTIALLY SIGNALISED & MARKED FOOTCROSSING
BROADWAY
GRAFTON ST
HOORGATE ST
ABERCROMBIE ST
BLACKWATTLE
BLACKFRIARS ST
CITY ROAD
MYRTLE ST
BUCKLAND ST
SHEPHERD ST
ROSE ST
PINE ST
CLEVELAND ST
HEAGHER ST
BARTLEY ST
REGENT ST
CHIPPEN ST
ST. PAULS PL
SERVICE STATION & TAXI DEPOT
HUDSON ST
LEGEND
TRAFFIC SIGNALS
PEDESTRIAN CROSSING
CLOSURE
SPEED HUMP/RAISED INTERSECTION
HATCHED PAVEMENT
ISLANDS
ONE WAY FLOW
ROUNDABOUT
NO RIGHT TURN
SIGNALISED PEDESTRIAN CROSSING
ALL TRAFFIC LEFT
NOT TO SCALE
CHIPPENDALE TRAFFIC STUDY
TRAFFIC MANAGEMENT
1990's.
FIGURE 3

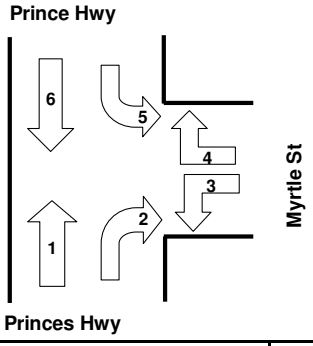
Appendix B

appendix b

Traffic Data (Intersection and Mid-Block Traffic Counts)

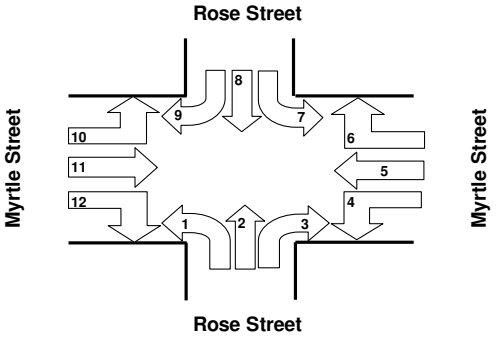
Intersection Traffic Counts

Client : GTA
Site : Princes Hwy / Myrtle St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



	Approach	Princes Hwy								Myrtle St								Prince Hwy							
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total
Thursday AM	7:00 to 8:00	932	30	28	**990**	0	0	0	**0**	21	0	0	**21**	0	0	0	**0**	30	1	0	**31**	996	36	12	**1044**
	7:15 to 8:15	1006	39	36	**1081**	0	0	0	**0**	22	0	0	**22**	0	0	0	**0**	34	2	0	**36**	1033	45	12	**1090**
	7:30 to 8:30	1085	43	44	**1172**	0	0	0	**0**	20	0	0	**20**	0	0	0	**0**	32	3	0	**35**	1115	52	15	**1182**
	7:45 to 8:45	1111	39	48	**1198**	0	0	0	**0**	15	0	0	**15**	0	0	0	**0**	37	2	0	**39**	1165	60	19	**1244**
	8:00 to 9:00	1242	43	55	**1340**	0	0	0	**0**	13	0	0	**13**	0	0	0	**0**	58	3	0	**61**	1268	73	21	**1362**
	AM Total	2174	73	83	**2330**	0	0	0	**0**	34	0	0	**34**	0	0	0	**0**	88	4	0	**92**	2264	109	33	**2406**
Thursday PM	16:00 to 17:00	1395	22	38	**1455**	0	0	0	**0**	28	0	0	**28**	0	0	0	**0**	65	1	0	**66**	1484	30	27	**1541**
	16:15 to 17:15	1385	19	39	**1443**	0	0	0	**0**	31	0	0	**31**	0	0	0	**0**	70	1	0	**71**	1483	30	29	**1542**
	16:30 to 17:30	1388	18	32	**1438**	0	0	0	**0**	29	0	0	**29**	0	0	0	**0**	73	0	0	**73**	1564	29	29	**1622**
	16:45 to 17:45	1377	15	31	**1423**	0	0	0	**0**	28	0	0	**28**	0	0	0	**0**	67	0	0	**67**	1572	29	33	**1634**
	17:00 to 18:00	1466	19	22	**1507**	0	0	0	**0**	32	0	0	**32**	0	0	0	**0**	77	0	0	**77**	1618	24	38	**1680**
	PM Total	2861	3	4	**377**	0	0	0	**0**	6	0	0	**6**	0	0	0	**0**	18	0	0	**18**	439	6	8	**453**
Saturday WE	12:00 to 13:00	1341	18	8	**1367**	0	0	0	**0**	30	0	0	**30**	0	0	0	**0**	44	0	0	**44**	1156	25	15	**1196**
	12:15 to 13:15	1371	16	7	**1394**	0	0	0	**0**	32	0	0	**32**	0	0	0	**0**	49	0	0	**49**	1213	25	16	**1254**
	12:30 to 13:30	1422	11	10	**1443**	0	0	0	**0**	27	0	0	**27**	0	0	0	**0**	54	0	0	**54**	1280	27	16	**1323**
	12:45 to 13:45	1418	9	11	**1438**	0	0	0	**0**	26	0	0	**26**	0	0	0	**0**	58	0	0	**58**	1262	24	17	**1303**
	13:00 to 14:00	1356	8	14	**1378**	0	0	0	**0**	20	0	0	**20**	0	0	0	**0**	47	0	0	**47**	1224	22	16	**1262**
	Sat Total	2697	26	22	**2745**	0	0	0	**0**	50	0	0	**50**	0	0	0	**0**	91	0	0	**91**	2380	47	31	**2458**

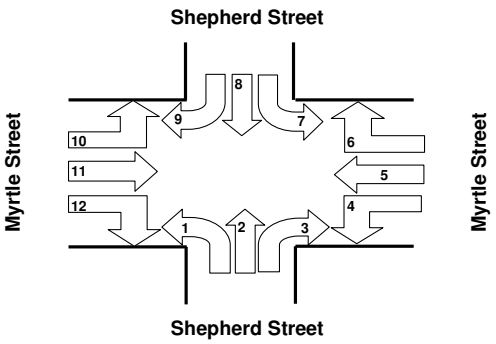
Client : GTA
Site : Rose St / Myrtle St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



	Approach	Rose Street												Myrtle Street											
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	0	0	0	**0**	6	0	0	**6**	7	0	0	**7**	2	0	0	**2**	16	0	0	**16**	3	0	0	**3**
	7:15 to 8:15	0	0	0	**0**	10	0	0	**10**	9	0	0	**9**	4	0	0	**4**	15	0	0	**15**	3	0	0	**3**
	7:30 to 8:30	0	0	0	**0**	13	0	0	**13**	12	0	0	**12**	6	0	0	**6**	10	0	0	**10**	4	0	0	**4**
	7:45 to 8:45	1	0	0	**1**	16	0	0	**16**	13	0	0	**13**	5	0	0	**5**	6	0	0	**6**	4	0	0	**4**
	8:00 to 9:00	1	0	0	**1**	15	0	0	**15**	13	1	0	**14**	5	0	0	**5**	4	0	0	**4**	4	0	0	**4**
	AM Total	1	0	0	**1**	21	0	0	**21**	20	1	0	**21**	7	0	0	**7**	20	0	0	**20**	7	0	0	**7**
Thursday PM	16:00 to 17:00	2	0	0	**2**	9	0	0	**9**	11	0	0	**11**	4	0	0	**4**	21	0	0	**21**	3	0	0	**3**
	16:15 to 17:15	2	0	0	**2**	9	0	0	**9**	12	0	0	**12**	5	0	0	**5**	21	0	0	**21**	5	0	0	**5**
	16:30 to 17:30	2	0	0	**2**	7	0	0	**7**	11	0	0	**11**	5	0	0	**5**	19	0	0	**19**	5	0	0	**5**
	16:45 to 17:45	0	0	0	**0**	8	0	0	**8**	8	0	0	**8**	4	0	0	**4**	19	0	0	**19**	5	0	0	**5**
	17:00 to 18:00	0	0	0	**0**	8	0	0	**8**	2	0	0	**2**	4	0	0	**4**	24	0	0	**24**	4	0	0	**4**
	PM Total	2	0	0	**2**	17	0	0	**17**	13	0	0	**13**	8	0	0	**8**	45	0	0	**45**	7	0	0	**7**
Saturday WE	12:00 to 13:00	2	0	0	**2**	12	0	0	**12**	4	0	0	**4**	5	0	0	**5**	24	0	0	**24**	1	0	0	**1**
	12:15 to 13:15	1	0	0	**1**	13	0	0	**13**	4	0	0	**4**	8	0	0	**8**	20	0	0	**20**	4	0	0	**4**
	12:30 to 13:30	2	0	0	**2**	12	0	0	**12**	5	0	0	**5**	6	0	0	**6**	15	0	0	**15**	6	0	0	**6**
	12:45 to 13:45	3	0	0	**3**	9	0	0	**9**	6	0	0	**6**	7	0	0	**7**	13	0	0	**13**	6	0	0	**6**
	13:00 to 14:00	4	0	0	**4**	7	0	0	**7**	6	0	0	**6**	6	0	0	**6**	8	0	0	**8**	6	0	0	**6**
	Sat Total	6	0	0	**6**	19	0	0	**19**	10	0	0	**10**	11	0	0	**11**	32	0	0	**32**	7	0	0	**7**

	Approach	Rose Street												Myrtle Street											
	Direction	Direction 9				Direction 8				Direction 7				Direction 10				Direction 11				Direction 12			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	1	0	0	**1**	9	0	0	**9**	2	0	0	**2**	4	0	0	**4**	24	1	0	**25**	2	0	0	**2**
	7:15 to 8:15	1	0	0	**1**	9	0	0	**9**	2	0	0	**2**	6	0	0	**6**	26	2	0	**28**	2	0	0	**2**
	7:30 to 8:30	1	0	0	**1**	9	0	0	**9**	2	0	0	**2**	5	0	0	**5**	25	3	0	**28**	2	0	0	**2**
	7:45 to 8:45	2	0	0	**2**	6	0	0	**6**	3	0	0	**3**	4	0	0	**4**	31	2	0	**33**	2	0	0	**2**
	8:00 to 9:00	3	0	0	**3**	6	0	0	**6**	5	0	0	**5**	4	0	0	**4**	52	3	0	**55**	2	0	0	**2**
	AM Total	**4**	**0**	**0**	**4**	**15**	**0**	**0**	**15**	**7**	**0**	**0**	**7**	**8**	**0**	**0**	**8**	**76**	**4**	**0**	**80**	**4**	**0**	**0**	**4**
Thursday PM	16:00 to 17:00	3	0	0	**3**	12	0	0	**12**	2	0	0	**2**	3	0	0	**3**	60	1	0	**61**	2	0	0	**2**
	16:15 to 17:15	3	0	0	**3**	12	0	0	**12**	3	0	0	**3**	5	0	0	**5**	62	1	0	**63**	3	0	0	**3**
	16:30 to 17:30	1	0	0	**1**	9	0	0	**9**	2	0	0	**2**	5	0	0	**5**	65	0	0	**65**	3	0	0	**3**
	16:45 to 17:45	0	0	0	**0**	6	0	0	**6**	4	0	0	**4**	6	0	0	**6**	58	0	0	**58**	3	0	0	**3**
	17:00 to 18:00	1	0	0	**1**	5	0	0	**5**	3	0	0	**3**	6	0	0	**6**	68	0	0	**68**	3	0	0	**3**
	PM Total	**4**	**0**	**0**	**4**	**17**	**0**	**0**	**17**	**5**	**0**	**0**	**5**	**9**	**0**	**0**	**9**	**128**	**1**	**0**	**129**	**5**	**0**	**0**	**5**
Saturday WE	12:00 to 13:00	1	0	0	**1**	12	0	0	**12**	3	0	0	**3**	1	0	0	**1**	41	0	0	**41**	2	0	0	**2**
	12:15 to 13:15	1	0	0	**1**	13	0	0	**13**	4	0	0	**4**	4	0	0	**4**	41	0	0	**41**	4	0	0	**4**
	12:30 to 13:30	0	0	0	**0**	12	0	0	**12**	6	0	0	**6**	7	0	0	**7**	43	0	0	**43**	4	0	0	**4**
	12:45 to 13:45	2	0	0	**2**	11	0	0	**11**	4	0	0	**4**	8	0	0	**8**	45	0	0	**45**	5	0	0	**5**
	13:00 to 14:00	2	0	0	**2**	8	0	0	**8**	8	0	0	**8**	9	0	0	**9**	35	0	0	**35**	3	0	0	**3**
	Sat Total	**3**	**0**	**0**	**3**	**20**	**0**	**0**	**20**	**11**	**0**	**0**	**11**	**10**	**0**	**0**	**10**	**76**	**0**	**0**	**76**	**5**	**0**	**0**	**5**

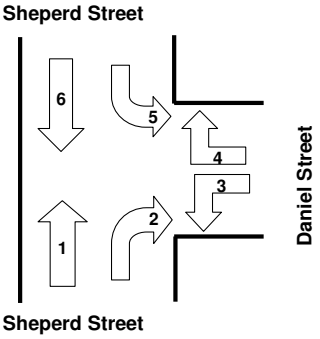
Client : GTA
Site : Shepherd St and Myrtle St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



	Approach	Shepherd Street												Myrtle Street											
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	3	0	0	**3**	46	2	0	**48**	5	0	0	**5**	17	0	0	**17**	13	0	0	**13**	0	0	0	**0**
	7:15 to 8:15	3	0	0	**3**	50	2	0	**52**	7	0	0	**7**	16	0	0	**16**	14	0	0	**14**	0	0	0	**0**
	7:30 to 8:30	5	0	0	**5**	54	2	0	**56**	9	0	0	**9**	17	0	0	**17**	11	0	0	**11**	1	0	0	**1**
	7:45 to 8:45	5	0	0	**5**	57	3	0	**60**	11	0	0	**11**	18	0	0	**18**	9	0	0	**9**	2	0	0	**2**
	8:00 to 9:00	3	0	0	**3**	57	5	1	**63**	13	0	0	**13**	17	0	0	**17**	9	0	0	**9**	2	0	0	**2**
	AM Total	6	0	0	**6**	103	7	1	**111**	18	0	0	**18**	34	0	0	**34**	22	0	0	**22**	2	0	0	**2**
Thursday PM	16:00 to 17:00	1	0	0	**1**	19	0	0	**19**	4	0	0	**4**	8	0	0	**8**	10	0	0	**10**	2	0	0	**2**
	16:15 to 17:15	2	0	0	**2**	22	1	0	**23**	5	0	0	**5**	10	0	0	**10**	13	0	0	**13**	2	0	0	**2**
	16:30 to 17:30	3	0	0	**3**	23	1	0	**24**	6	0	0	**6**	8	0	0	**8**	10	0	0	**10**	1	0	0	**1**
	16:45 to 17:45	2	0	0	**2**	27	1	0	**28**	6	0	0	**6**	9	0	0	**9**	5	0	0	**5**	2	0	0	**2**
	17:00 to 18:00	4	0	0	**4**	28	1	0	**29**	8	0	0	**8**	8	0	0	**8**	4	0	0	**4**	1	0	0	**1**
	PM Total	5	0	0	**5**	47	1	0	**48**	12	0	0	**12**	16	0	0	**16**	14	0	0	**14**	3	0	0	**3**
Saturday WE	12:00 to 13:00	11	0	0	**11**	29	0	0	**29**	5	0	0	**5**	10	0	0	**10**	1	0	0	**1**	2	0	0	**2**
	12:15 to 13:15	14	0	0	**14**	28	0	0	**28**	6	0	0	**6**	13	0	0	**13**	5	0	0	**5**	2	0	0	**2**
	12:30 to 13:30	16	0	0	**16**	30	0	0	**30**	5	0	0	**5**	12	0	0	**12**	6	0	0	**6**	1	0	0	**1**
	12:45 to 13:45	14	0	0	**14**	29	0	0	**29**	4	0	0	**4**	12	0	0	**12**	8	0	0	**8**	1	0	0	**1**
	13:00 to 14:00	13	0	0	**13**	26	0	0	**26**	3	0	0	**3**	11	0	0	**11**	10	0	0	**10**	0	0	0	**0**
	Sat Total	24	0	0	**24**	55	0	0	**55**	8	0	0	**8**	21	0	0	**21**	11	0	0	**11**	2	0	0	**2**

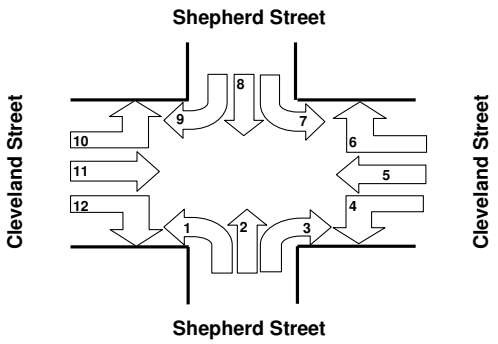
	Approach	Shepherd Street												Myrtle Street											
	Direction	Direction 9				Direction 8				Direction 7				Direction 10				Direction 11				Direction 12			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	5	0	0	**5**	31	0	0	**31**	5	0	0	**5**	4	0	0	**4**	20	1	0	**21**	9	0	0	**9**
	7:15 to 8:15	5	0	0	**5**	33	1	0	**34**	4	0	0	**4**	4	0	0	**4**	23	2	0	**25**	10	0	0	**10**
	7:30 to 8:30	4	0	0	**4**	34	2	0	**36**	4	0	0	**4**	7	0	0	**7**	24	3	0	**27**	8	0	0	**8**
	7:45 to 8:45	1	0	0	**1**	41	2	0	**43**	3	0	0	**3**	9	0	0	**9**	30	2	0	**32**	8	0	0	**8**
	8:00 to 9:00	1	0	0	**1**	44	2	0	**46**	2	0	0	**2**	12	0	0	**12**	52	4	0	**56**	6	0	0	**6**
	AM Total	**6**	**0**	**0**	**6**	**75**	**2**	**0**	**77**	**7**	**0**	**0**	**7**	**16**	**0**	**0**	**16**	**72**	**5**	**0**	**77**	**15**	**0**	**0**	**15**
Thursday PM	16:00 to 17:00	17	0	0	**17**	33	0	0	**33**	1	0	0	**1**	23	0	0	**23**	43	1	0	**44**	7	0	0	**7**
	16:15 to 17:15	16	0	0	**16**	45	0	0	**45**	1	0	0	**1**	22	0	0	**22**	47	1	0	**48**	8	0	0	**8**
	16:30 to 17:30	16	0	0	**16**	43	0	0	**43**	3	0	0	**3**	21	0	0	**21**	51	0	0	**51**	6	0	0	**6**
	16:45 to 17:45	21	0	0	**21**	51	0	0	**51**	6	0	0	**6**	19	0	0	**19**	43	0	0	**43**	8	0	0	**8**
	17:00 to 18:00	24	0	0	**24**	52	0	0	**52**	7	0	0	**7**	17	0	0	**17**	47	0	0	**47**	9	0	0	**9**
	PM Total	**41**	**0**	**0**	**41**	**85**	**0**	**0**	**85**	**8**	**0**	**0**	**8**	**40**	**0**	**0**	**40**	**90**	**1**	**0**	**91**	**16**	**0**	**0**	**16**
Saturday WE	12:00 to 13:00	12	0	0	**12**	32	0	0	**32**	6	0	0	**6**	8	0	0	**8**	23	0	0	**23**	15	0	0	**15**
	12:15 to 13:15	10	0	0	**10**	35	0	0	**35**	5	1	0	**6**	14	0	0	**14**	21	0	0	**21**	12	0	0	**12**
	12:30 to 13:30	9	0	0	**9**	42	0	0	**42**	3	1	0	**4**	21	0	0	**21**	20	0	0	**20**	10	0	0	**10**
	12:45 to 13:45	7	0	0	**7**	43	0	0	**43**	2	1	0	**3**	23	0	0	**23**	19	0	0	**19**	13	0	0	**13**
	13:00 to 14:00	10	0	0	**10**	48	0	0	**48**	4	1	0	**5**	21	0	0	**21**	13	0	0	**13**	14	0	0	**14**
	Sat Total	**22**	**0**	**0**	**22**	**80**	**0**	**0**	**80**	**10**	**1**	**0**	**11**	**29**	**0**	**0**	**29**	**36**	**0**	**0**	**36**	**29**	**0**	**0**	**29**

Client : GTA
Site : Shepherd St and Daniels St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



	Approach	Sheperd Street								Daniel Street								Sheperd Street							
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total
Thursday AM	7:00 to 8:00	18	2	0	**20**	35	0	0	**35**	9	0	0	**9**	4	0	0	**4**	8	0	0	**8**	22	0	0	**22**
	7:15 to 8:15	14	2	0	**16**	40	0	0	**40**	8	0	0	**8**	2	1	0	**3**	7	1	0	**8**	18	1	0	**19**
	7:30 to 8:30	14	2	0	**16**	44	0	0	**44**	10	0	0	**10**	1	1	0	**2**	10	1	0	**11**	21	2	0	**23**
	7:45 to 8:45	22	1	0	**23**	46	2	0	**48**	12	0	0	**12**	3	1	0	**4**	13	2	0	**15**	26	2	0	**28**
	8:00 to 9:00	21	3	1	**25**	47	2	0	**49**	10	0	0	**10**	6	1	0	**7**	11	2	0	**13**	31	2	0	**33**
	AM Total	39	5	1	**45**	82	2	0	**84**	19	0	0	**19**	10	1	0	**11**	19	2	0	**21**	53	2	0	**55**
Thursday PM	16:00 to 17:00	20	0	0	**20**	18	0	0	**18**	24	0	0	**24**	10	0	0	**10**	3	0	0	**3**	27	0	0	**27**
	16:15 to 17:15	20	0	0	**20**	26	1	0	**27**	31	0	0	**31**	9	0	0	**9**	2	0	0	**2**	31	0	0	**31**
	16:30 to 17:30	20	0	0	**20**	27	1	0	**28**	32	0	0	**32**	10	0	0	**10**	5	0	0	**5**	30	0	0	**30**
	16:45 to 17:45	20	0	0	**20**	29	1	0	**30**	42	0	0	**42**	10	0	0	**10**	8	0	0	**8**	36	0	0	**36**
	17:00 to 18:00	26	0	0	**26**	29	1	0	**30**	45	0	0	**45**	8	0	0	**8**	10	0	0	**10**	38	0	0	**38**
	PM Total	46	0	0	**4**	6	0	0	**6**	7	0	0	**7**	2	0	0	**2**	3	0	0	**3**	10	0	0	**10**
Saturday WE	12:00 to 13:00	26	0	0	**26**	14	0	0	**14**	21	0	0	**21**	10	0	0	**10**	6	0	0	**6**	29	0	0	**29**
	12:15 to 13:15	29	0	0	**29**	14	0	0	**14**	21	0	0	**21**	9	1	0	**10**	6	0	0	**6**	25	1	0	**26**
	12:30 to 13:30	29	0	0	**29**	14	0	0	**14**	22	0	0	**22**	6	1	0	**7**	5	0	0	**5**	30	1	0	**31**
	12:45 to 13:45	30	0	0	**30**	16	0	0	**16**	18	0	0	**18**	10	1	0	**11**	5	0	0	**5**	33	1	0	**34**
	13:00 to 14:00	29	0	0	**29**	18	0	0	**18**	20	0	0	**20**	7	1	0	**8**	3	0	0	**3**	40	1	0	**41**
	Sat Total	55	0	0	**55**	32	0	0	**32**	41	0	0	**41**	17	1	0	**18**	9	0	0	**9**	69	1	0	**70**

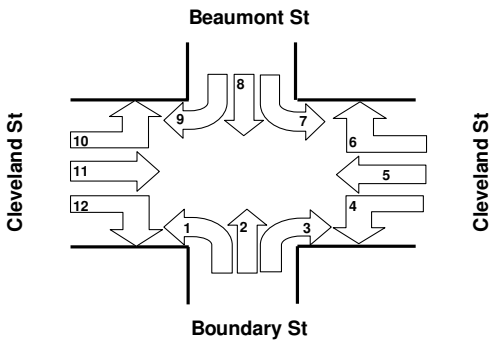
Client : GTA
Site : Shepherd St and Cleveland St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



	Approach	Shepherd Street												Cleveland Street											
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	58	5	0	**63**	36	3	0	**39**	74	0	0	**74**	25	1	1	**27**	616	26	3	**645**	0	0	0	**0**
	7:15 to 8:15	73	6	0	**79**	39	4	0	**43**	85	0	0	**85**	13	1	1	**15**	687	35	4	**726**	0	0	0	**0**
	7:30 to 8:30	82	5	0	**87**	36	6	0	**42**	90	1	0	**91**	9	1	1	**11**	702	36	3	**741**	0	0	0	**0**
	7:45 to 8:45	97	4	0	**101**	38	10	0	**48**	86	2	0	**88**	9	0	0	**9**	797	35	3	**835**	0	0	0	**0**
	8:00 to 9:00	102	2	0	**104**	41	11	0	**52**	89	2	0	**91**	8	0	0	**8**	805	40	4	**849**	0	0	0	**0**
	AM Total	160	7	0	**167**	77	14	0	**91**	163	2	0	**165**	33	1	1	**35**	1421	66	7	**1494**	0	0	0	**0**
Thursday PM	16:00 to 17:00	51	0	0	**51**	12	0	0	**12**	84	0	0	**84**	10	0	0	**10**	1187	25	4	**1216**	0	0	0	**0**
	16:15 to 17:15	54	0	0	**54**	21	0	0	**21**	89	0	0	**89**	13	0	0	**13**	1185	23	3	**1211**	0	0	0	**0**
	16:30 to 17:30	59	0	0	**59**	24	0	0	**24**	93	0	0	**93**	17	0	0	**17**	1188	19	3	**1210**	0	0	0	**0**
	16:45 to 17:45	69	2	0	**71**	29	0	0	**29**	95	0	0	**95**	22	1	0	**23**	1176	26	3	**1205**	0	0	0	**0**
	17:00 to 18:00	67	2	0	**69**	31	0	0	**31**	101	0	0	**101**	30	1	0	**31**	1152	26	2	**1180**	0	0	0	**0**
	PM Total	118	2	0	**120**	43	0	0	**43**	185	0	0	**185**	40	1	0	**41**	2339	51	6	**2396**	0	0	0	**0**
Saturday WE	12:00 to 13:00	22	0	0	**22**	39	0	0	**39**	73	1	0	**74**	11	1	0	**12**	1017	26	4	**1047**	0	0	0	**0**
	12:15 to 13:15	33	1	0	**34**	25	0	0	**25**	76	0	0	**76**	12	0	0	**12**	1005	25	6	**1036**	0	0	0	**0**
	12:30 to 13:30	45	1	0	**46**	24	0	0	**24**	86	0	0	**86**	16	0	0	**16**	989	18	3	**1010**	0	0	0	**0**
	12:45 to 13:45	54	1	0	**55**	25	0	0	**25**	91	0	0	**91**	14	0	0	**14**	932	19	3	**954**	0	0	0	**0**
	13:00 to 14:00	60	3	0	**63**	20	0	0	**20**	96	1	0	**97**	13	0	0	**13**	960	24	3	**987**	0	0	0	**0**
	Sat Total	82	3	0	**85**	59	0	0	**59**	169	2	0	**171**	24	1	0	**25**	1977	50	7	**2034**	0	0	0	**0**

	Approach	Shepherd Street												Cleveland Street											
	Direction	Direction 9				Direction 8				Direction 7				Direction 10				Direction 11				Direction 12			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	3	0	0	**3**	36	2	0	**38**	27	2	0	**29**	14	1	0	**15**	1138	48	0	**1186**	35	0	0	**35**
	7:15 to 8:15	3	0	0	**3**	41	1	0	**42**	27	3	0	**30**	14	1	0	**15**	1156	58	0	**1214**	33	0	0	**33**
	7:30 to 8:30	6	0	0	**6**	42	0	0	**42**	24	3	0	**27**	21	0	0	**21**	1155	57	0	**1212**	38	0	0	**38**
	7:45 to 8:45	6	0	0	**6**	42	1	0	**43**	26	1	0	**27**	18	1	0	**19**	1149	53	1	**1203**	38	0	0	**38**
	8:00 to 9:00	7	0	0	**7**	41	1	0	**42**	23	1	0	**24**	19	2	0	**21**	1129	58	2	**1189**	41	0	0	**41**
	AM Total	**10**	**0**	**0**	**10**	**77**	**3**	**0**	**80**	**50**	**3**	**0**	**53**	**33**	**3**	**0**	**36**	**2267**	**106**	**2**	**2375**	**76**	**0**	**0**	**76**
Thursday PM	16:00 to 17:00	6	0	0	**6**	21	0	0	**21**	17	1	0	**18**	17	0	0	**17**	1000	22	8	**1030**	35	0	0	**35**
	16:15 to 17:15	5	0	0	**5**	23	0	0	**23**	19	1	0	**20**	17	1	0	**18**	987	19	5	**1011**	33	0	0	**33**
	16:30 to 17:30	6	0	0	**6**	32	0	0	**32**	15	0	0	**15**	18	1	0	**19**	982	19	5	**1006**	31	0	0	**31**
	16:45 to 17:45	5	0	0	**5**	46	0	0	**46**	14	0	0	**14**	22	1	0	**23**	983	17	5	**1005**	33	0	0	**33**
	17:00 to 18:00	5	0	0	**5**	54	0	0	**54**	15	0	0	**15**	19	1	0	**20**	991	18	5	**1014**	30	0	0	**30**
	PM Total	**11**	**0**	**0**	**11**	**75**	**0**	**0**	**75**	**32**	**1**	**0**	**33**	**36**	**1**	**0**	**37**	**1991**	**40**	**13**	**2044**	**65**	**0**	**0**	**65**
Saturday WE	12:00 to 13:00	11	1	0	**12**	24	0	0	**24**	17	0	0	**17**	20	0	0	**20**	1182	19	5	**1206**	58	0	0	**58**
	12:15 to 13:15	14	0	0	**14**	30	0	0	**30**	14	0	0	**14**	23	0	0	**23**	1204	19	4	**1227**	71	1	0	**72**
	12:30 to 13:30	19	0	0	**19**	33	0	0	**33**	16	0	0	**16**	25	0	0	**25**	1175	15	4	**1194**	85	1	1	**87**
	12:45 to 13:45	19	0	0	**19**	33	0	0	**33**	13	0	0	**13**	28	0	0	**28**	1126	15	1	**1142**	82	1	1	**84**
	13:00 to 14:00	21	0	0	**21**	38	0	0	**38**	17	0	0	**17**	22	0	0	**22**	1158	14	0	**1172**	75	1	1	**77**
	Sat Total	**32**	**1**	**0**	**33**	**62**	**0**	**0**	**62**	**34**	**0**	**0**	**34**	**42**	**0**	**0**	**42**	**2340**	**33**	**5**	**2378**	**133**	**1**	**1**	**135**

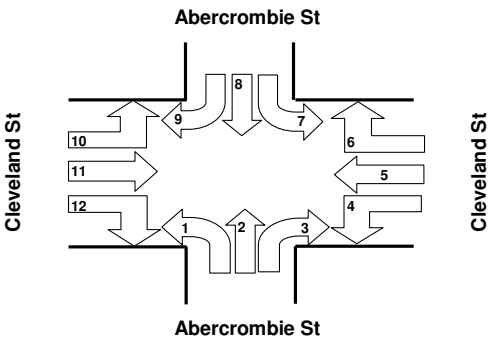
Client : GTA
Site : Cleveland St and Beaumont St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



	Approach	Boundary St												Cleveland St											
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	610	30	4	**644**	6	1	0	**7**
	7:15 to 8:15	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	2	0	0	**2**	667	36	5	**708**	6	1	0	**7**
	7:30 to 8:30	0	0	0	**0**	2	0	0	**2**	0	0	0	**0**	1	0	0	**1**	728	44	3	**775**	3	1	0	**4**
	7:45 to 8:45	0	0	0	**0**	2	0	0	**2**	0	0	0	**0**	1	0	0	**1**	796	50	2	**848**	0	0	0	**0**
	8:00 to 9:00	0	0	0	**0**	2	0	0	**2**	0	0	0	**0**	2	0	0	**2**	818	51	1	**870**	0	0	0	**0**
	AM Total	0	0	0	**0**	2	0	0	**2**	0	0	0	**0**	3	0	0	**3**	1428	81	5	**1514**	6	1	0	**7**
Thursday PM	16:00 to 17:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	2	0	0	**2**	1146	79	9	**1234**	0	0	0	**0**
	16:15 to 17:15	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	3	0	0	**3**	1104	65	8	**1177**	0	0	0	**0**
	16:30 to 17:30	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	2	0	0	**2**	1088	60	7	**1155**	0	0	0	**0**
	16:45 to 17:45	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	3	0	0	**3**	1146	62	6	**1214**	0	0	0	**0**
	17:00 to 18:00	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	2	0	0	**2**	1177	62	3	**1242**	0	0	0	**0**
	PM Total	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	4	0	0	**4**	2323	141	12	**2476**	0	0	0	**0**
Saturday WE	12:00 to 13:00	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	3	0	0	**3**	1055	19	3	**1077**	0	0	0	**0**
	12:15 to 13:15	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	2	0	0	**2**	1034	19	3	**1056**	0	1	0	**1**
	12:30 to 13:30	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	2	0	0	**2**	1096	14	3	**1113**	0	1	0	**1**
	12:45 to 13:45	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	3	0	0	**3**	1095	15	2	**1112**	1	1	0	**2**
	13:00 to 14:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	3	0	0	**3**	1072	15	2	**1089**	2	1	0	**3**
	Sat Total	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	6	0	0	**6**	2127	34	5	**2166**	2	1	0	**3**

	Approach	Beaumont St												Cleveland St											
	Direction	Direction 9				Direction 8				Direction 7				Direction 10				Direction 11				Direction 12			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	16	0	0	**16**	0	2	0	**2**	10	0	0	**10**	28	0	0	**28**	1190	84	0	**1274**	2	0	0	**2**
	7:15 to 8:15	12	0	0	**12**	2	2	0	**4**	9	0	0	**9**	28	0	0	**28**	1234	96	1	**1331**	2	0	0	**2**
	7:30 to 8:30	9	0	0	**9**	3	1	0	**4**	6	0	0	**6**	40	1	0	**41**	1302	95	1	**1398**	2	0	0	**2**
	7:45 to 8:45	5	0	0	**5**	4	1	0	**5**	4	0	0	**4**	41	1	0	**42**	1264	90	1	**1355**	3	0	0	**3**
	8:00 to 9:00	2	0	0	**2**	4	0	0	**4**	5	0	0	**5**	38	1	0	**39**	1214	99	2	**1315**	2	0	0	**2**
	AM Total	**18**	**0**	**0**	**18**	**4**	**2**	**0**	**6**	**15**	**0**	**0**	**15**	**66**	**1**	**0**	**67**	**2404**	**183**	**2**	**2589**	**4**	**0**	**0**	**4**
Thursday PM	16:00 to 17:00	14	0	0	**14**	1	0	0	**1**	5	0	0	**5**	14	1	0	**15**	1080	56	6	**1142**	2	0	0	**2**
	16:15 to 17:15	11	0	0	**11**	1	0	0	**1**	5	0	0	**5**	13	0	0	**13**	1041	50	3	**1094**	3	0	0	**3**
	16:30 to 17:30	12	0	0	**12**	1	0	0	**1**	4	0	0	**4**	14	0	0	**14**	1100	47	3	**1150**	2	0	0	**2**
	16:45 to 17:45	10	0	0	**10**	2	0	0	**2**	6	0	0	**6**	14	0	0	**14**	1113	43	4	**1160**	3	0	0	**3**
	17:00 to 18:00	9	0	0	**9**	2	0	0	**2**	6	0	0	**6**	16	0	0	**16**	1117	44	5	**1166**	2	0	0	**2**
	PM Total	**23**	**0**	**0**	**23**	**3**	**0**	**0**	**3**	**11**	**0**	**0**	**11**	**30**	**1**	**0**	**31**	**2197**	**100**	**11**	**2308**	**4**	**0**	**0**	**4**
Saturday WE	12:00 to 13:00	6	0	0	**6**	1	0	0	**1**	0	0	0	**0**	3	0	0	**3**	1288	25	0	**1313**	1	0	0	**1**
	12:15 to 13:15	4	0	0	**4**	1	0	0	**1**	0	0	0	**0**	4	0	0	**4**	1306	21	0	**1327**	2	0	0	**2**
	12:30 to 13:30	4	0	0	**4**	2	0	0	**2**	1	0	0	**1**	4	0	0	**4**	1301	16	0	**1317**	4	0	0	**4**
	12:45 to 13:45	3	0	0	**3**	2	0	0	**2**	3	0	0	**3**	5	0	0	**5**	1298	16	0	**1314**	4	0	0	**4**
	13:00 to 14:00	6	0	0	**6**	3	0	0	**3**	3	0	0	**3**	7	0	0	**7**	1270	16	0	**1286**	3	0	0	**3**
	Sat Total	**12**	**0**	**0**	**12**	**4**	**0**	**0**	**4**	**3**	**0**	**0**	**3**	**10**	**0**	**0**	**10**	**2558**	**41**	**0**	**2599**	**4**	**0**	**0**	**4**

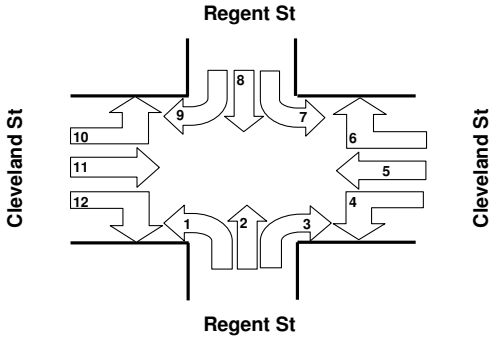
Client : GTA
Site : Cleveland St and Abercrombie St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



	Approach	Abercrombie St												Cleveland St											
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	27	0	0	**27**	0	0	0	**0**	0	0	0	**0**	20	0	0	**20**	605	21	4	**630**	1154	38	10	**1202**
	7:15 to 8:15	26	0	0	**26**	0	0	0	**0**	0	0	0	**0**	23	0	0	**23**	656	23	4	**683**	1290	32	7	**1329**
	7:30 to 8:30	29	0	0	**29**	0	0	0	**0**	0	0	0	**0**	26	0	0	**26**	713	30	3	**746**	1384	35	6	**1425**
	7:45 to 8:45	43	0	0	**43**	0	0	0	**0**	0	0	0	**0**	34	0	0	**34**	764	27	4	**795**	1427	35	4	**1466**
	8:00 to 9:00	44	0	0	**44**	0	0	0	**0**	0	0	0	**0**	38	0	0	**38**	792	32	4	**828**	1448	47	2	**1497**
	AM Total	71	0	0	**71**	0	0	0	**0**	0	0	0	**0**	58	0	0	**58**	1397	53	8	**1458**	2602	85	12	**2699**
Thursday PM	16:00 to 17:00	65	0	0	**65**	0	0	0	**0**	0	0	0	**0**	24	0	0	**24**	1130	11	3	**1144**	1204	21	0	**1225**
	16:15 to 17:15	67	0	0	**67**	0	0	0	**0**	0	0	0	**0**	28	0	0	**28**	1138	8	3	**1149**	1289	14	1	**1304**
	16:30 to 17:30	85	0	0	**85**	0	0	0	**0**	0	0	0	**0**	30	0	0	**30**	1167	10	3	**1180**	1344	13	1	**1358**
	16:45 to 17:45	87	0	0	**87**	0	0	0	**0**	0	0	0	**0**	30	0	0	**30**	1181	13	2	**1196**	1410	11	1	**1422**
	17:00 to 18:00	90	0	0	**90**	0	0	0	**0**	0	0	0	**0**	32	0	0	**32**	1152	13	0	**1165**	1442	10	1	**1453**
	PM Total	155	0	0	**155**	0	0	0	**0**	0	0	0	**0**	56	0	0	**56**	2282	24	3	**2309**	2646	31	1	**2678**
Saturday WE	12:00 to 13:00	75	0	0	**75**	0	0	0	**0**	0	0	0	**0**	17	0	0	**17**	985	26	3	**1014**	1108	38	2	**1148**
	12:15 to 13:15	88	0	0	**88**	0	0	0	**0**	0	0	0	**0**	17	0	0	**17**	1060	22	4	**1086**	1161	31	0	**1192**
	12:30 to 13:30	93	0	0	**93**	0	0	0	**0**	0	0	0	**0**	18	0	0	**18**	1019	19	2	**1040**	1118	27	0	**1145**
	12:45 to 13:45	100	0	0	**100**	0	0	0	**0**	0	0	0	**0**	19	0	0	**19**	1064	18	1	**1083**	1195	26	0	**1221**
	13:00 to 14:00	101	1	0	**102**	0	0	0	**0**	0	0	0	**0**	21	0	0	**21**	1027	20	1	**1048**	1150	24	0	**1174**
	Sat Total	176	1	0	**177**	0	0	0	**0**	0	0	0	**0**	38	0	0	**38**	2012	46	4	**2062**	2258	62	2	**2322**

	Approach	Abercrombie St												Cleveland St											
	Direction	Direction 9				Direction 8				Direction 7				Direction 10				Direction 11				Direction 12			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	106	2	0	**108**	1183	44	0	**1227**	0	0	0	**0**
	7:15 to 8:15	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	119	2	0	**121**	1208	40	1	**1249**	0	0	0	**0**
	7:30 to 8:30	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	125	1	0	**126**	1234	46	2	**1282**	0	0	0	**0**
	7:45 to 8:45	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	127	1	0	**128**	1258	46	3	**1307**	0	0	0	**0**
	8:00 to 9:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	106	4	0	**110**	1207	46	4	**1257**	0	0	0	**0**
	AM Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**212**	**6**	**0**	**218**	**2390**	**90**	**4**	**2484**	**0**	**0**	**0**	**0**
Thursday PM	16:00 to 17:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	89	3	0	**92**	1033	23	8	**1064**	0	0	0	**0**
	16:15 to 17:15	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	94	3	0	**97**	1063	26	6	**1095**	0	0	0	**0**
	16:30 to 17:30	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	89	2	0	**91**	1114	24	5	**1143**	0	0	0	**0**
	16:45 to 17:45	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	97	2	0	**99**	1093	21	3	**1117**	0	0	0	**0**
	17:00 to 18:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	95	1	0	**96**	1078	20	2	**1100**	0	0	0	**0**
	PM Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**184**	**4**	**0**	**188**	**2111**	**43**	**10**	**2164**	**0**	**0**	**0**	**0**
Saturday WE	12:00 to 13:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	82	0	0	**82**	1177	22	2	**1201**	0	0	0	**0**
	12:15 to 13:15	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	90	0	0	**90**	1221	17	1	**1239**	0	0	0	**0**
	12:30 to 13:30	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	88	0	0	**88**	1144	14	0	**1158**	0	0	0	**0**
	12:45 to 13:45	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	86	0	0	**86**	1179	16	0	**1195**	0	0	0	**0**
	13:00 to 14:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	76	0	0	**76**	1199	14	1	**1214**	0	0	0	**0**
	Sat Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**158**	**0**	**0**	**158**	**2376**	**36**	**3**	**2415**	**0**	**0**	**0**	**0**

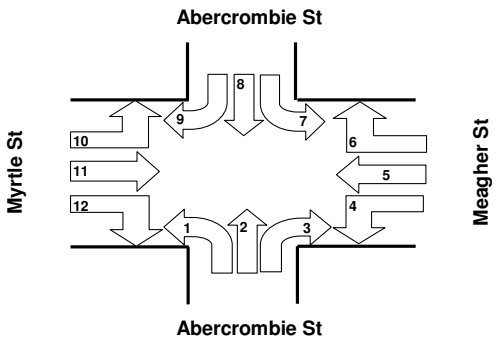
Client : GTA
Site : Cleveland St and Regent St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



	Approach	Regent St												Cleveland St											
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	742	48	8	**798**	929	24	45	**998**	0	0	0	**0**	42	0	0	**42**	1005	26	4	**1035**	0	0	0	**0**
	7:15 to 8:15	789	47	6	**842**	1036	24	44	**1104**	0	0	0	**0**	54	0	0	**54**	1084	26	4	**1114**	0	0	0	**0**
	7:30 to 8:30	847	50	4	**901**	1083	21	42	**1146**	0	0	0	**0**	84	1	0	**85**	1231	16	3	**1250**	0	0	0	**0**
	7:45 to 8:45	816	48	5	**869**	1142	19	45	**1206**	0	0	0	**0**	93	2	0	**95**	1399	13	3	**1415**	0	0	0	**0**
	8:00 to 9:00	902	49	4	**955**	1176	20	43	**1239**	0	0	0	**0**	113	2	0	**115**	1370	18	5	**1393**	0	0	0	**0**
	AM Total	1644	97	12	**1753**	2105	44	88	**2237**	0	0	0	**0**	155	2	0	**157**	2375	44	9	**2428**	0	0	0	**0**
Thursday PM	16:00 to 17:00	872	17	1	**890**	796	13	40	**849**	0	0	0	**0**	97	4	1	**102**	1412	17	3	**1432**	0	0	0	**0**
	16:15 to 17:15	953	10	1	**964**	884	17	35	**936**	0	0	0	**0**	87	4	1	**92**	1470	16	3	**1489**	0	0	0	**0**
	16:30 to 17:30	992	10	0	**1002**	877	12	29	**918**	0	0	0	**0**	84	3	1	**88**	1569	14	4	**1587**	0	0	0	**0**
	16:45 to 17:45	996	8	0	**1004**	872	10	31	**913**	0	0	0	**0**	77	2	1	**80**	1516	16	4	**1536**	0	0	0	**0**
	17:00 to 18:00	1033	9	0	**1042**	921	8	31	**960**	0	0	0	**0**	86	1	0	**87**	1565	11	2	**1578**	0	0	0	**0**
	PM Total	1905	26	1	**1932**	1717	21	71	**1809**	0	0	0	**0**	183	5	1	**189**	2977	28	5	**3010**	0	0	0	**0**
Saturday WE	12:00 to 13:00	716	23	10	**749**	723	8	6	**737**	0	0	0	**0**	50	0	0	**50**	1381	8	7	**1396**	0	0	0	**0**
	12:15 to 13:15	703	22	6	**731**	738	14	7	**759**	0	0	0	**0**	47	0	0	**47**	1345	7	6	**1358**	0	0	0	**0**
	12:30 to 13:30	717	25	5	**747**	724	18	8	**750**	0	0	0	**0**	44	0	0	**44**	1294	9	4	**1307**	0	0	0	**0**
	12:45 to 13:45	669	20	5	**694**	702	16	9	**727**	0	0	0	**0**	36	0	0	**36**	1194	8	2	**1204**	0	0	0	**0**
	13:00 to 14:00	660	14	3	**677**	686	15	8	**709**	0	0	0	**0**	33	0	0	**33**	1081	7	1	**1089**	0	0	0	**0**
	Sat Total	1376	37	13	**1426**	1409	23	14	**1446**	0	0	0	**0**	83	0	0	**83**	2462	15	8	**2485**	0	0	0	**0**

	Approach	Regent St												Cleveland St											
	Direction	Direction 9				Direction 8				Direction 7				Direction 10				Direction 11				Direction 12			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	0	0	0	**0**	955	48	13	**1016**	181	7	6	**194**	29	1	0	**30**	827	23	2	**852**	303	19	0	**322**
	7:15 to 8:15	0	0	0	**0**	1007	46	20	**1073**	195	9	9	**213**	23	0	0	**23**	878	20	3	**901**	323	24	0	**347**
	7:30 to 8:30	0	0	0	**0**	1096	51	23	**1170**	210	10	9	**229**	12	0	0	**12**	921	21	2	**944**	334	24	0	**358**
	7:45 to 8:45	0	0	0	**0**	1069	55	27	**1151**	239	13	11	**263**	8	0	0	**8**	907	19	2	**928**	341	24	0	**365**
	8:00 to 9:00	0	0	0	**0**	1052	56	26	**1134**	269	15	10	**294**	8	0	0	**8**	958	22	2	**982**	342	23	0	**365**
	AM Total	**0**	**0**	**0**	**0**	**2007**	**104**	**39**	**2150**	**450**	**22**	**16**	**488**	**37**	**1**	**0**	**38**	**1785**	**45**	**4**	**1834**	**645**	**42**	**0**	**687**
Thursday PM	16:00 to 17:00	0	0	0	**0**	1259	39	17	**1315**	266	6	3	**275**	19	0	0	**19**	810	6	4	**820**	231	9	2	**242**
	16:15 to 17:15	0	0	0	**0**	1417	37	20	**1474**	286	7	2	**295**	23	0	0	**23**	837	7	3	**847**	245	8	1	**254**
	16:30 to 17:30	0	0	0	**0**	1396	23	19	**1438**	307	8	1	**316**	26	0	0	**26**	844	6	3	**853**	251	5	0	**256**
	16:45 to 17:45	0	0	0	**0**	1452	22	20	**1494**	337	6	1	**344**	27	0	0	**27**	845	7	3	**855**	238	2	0	**240**
	17:00 to 18:00	0	0	0	**0**	1572	16	22	**1610**	374	6	0	**380**	27	0	0	**27**	836	10	4	**850**	214	2	0	**216**
	PM Total	**0**	**0**	**0**	**0**	**2831**	**55**	**39**	**2925**	**640**	**12**	**3**	**655**	**46**	**0**	**0**	**46**	**1646**	**16**	**8**	**1670**	**445**	**11**	**2**	**458**
Saturday WE	12:00 to 13:00	0	0	0	**0**	837	30	17	**884**	403	4	2	**409**	24	0	0	**24**	881	9	3	**893**	282	3	3	**288**
	12:15 to 13:15	0	0	0	**0**	821	23	20	**864**	411	6	3	**420**	21	0	0	**21**	886	11	2	**899**	269	2	3	**274**
	12:30 to 13:30	0	0	0	**0**	857	21	20	**898**	390	7	2	**399**	28	0	0	**28**	915	11	2	**928**	263	4	3	**270**
	12:45 to 13:45	0	0	0	**0**	851	23	13	**887**	389	4	1	**394**	24	0	0	**24**	896	9	1	**906**	259	4	1	**264**
	13:00 to 14:00	0	0	0	**0**	886	20	14	**920**	359	3	1	**363**	20	0	0	**20**	900	9	2	**911**	268	5	0	**273**
	Sat Total	**0**	**0**	**0**	**0**	**1723**	**50**	**31**	**1804**	**762**	**7**	**3**	**772**	**44**	**0**	**0**	**44**	**1781**	**18**	**5**	**1804**	**550**	**8**	**3**	**561**

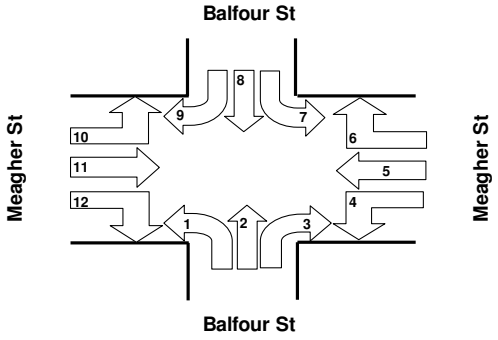
Client : GTA
Site : Abercrombie St/Myrtle St and Meagher St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



	Approach	Abercrombie St												Meagher St											
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	14	1	0	**15**	1224	55	10	**1289**	18	1	0	**19**	0	0	0	**0**	21	6	0	**27**	86	4	0	**90**
	7:15 to 8:15	19	1	0	**20**	1326	58	7	**1391**	27	2	0	**29**	0	0	0	**0**	17	3	0	**20**	103	4	0	**107**
	7:30 to 8:30	23	1	0	**24**	1408	65	6	**1479**	35	2	0	**37**	0	0	0	**0**	13	1	0	**14**	127	3	0	**130**
	7:45 to 8:45	34	1	0	**35**	1452	72	5	**1529**	48	3	0	**51**	0	0	0	**0**	15	1	0	**16**	132	0	0	**132**
	8:00 to 9:00	37	1	0	**38**	1438	78	2	**1518**	52	2	0	**54**	0	0	0	**0**	13	2	1	**16**	138	2	0	**140**
	AM Total	51	2	0	**53**	2662	133	12	**2807**	70	3	0	**73**	0	0	0	**0**	34	8	1	**43**	224	6	0	**230**
Thursday PM	16:00 to 17:00	24	1	0	**25**	1254	25	2	**1281**	41	2	0	**43**	0	0	0	**0**	29	0	0	**29**	202	1	0	**203**
	16:15 to 17:15	24	1	0	**25**	1357	23	3	**1383**	30	2	0	**32**	0	0	0	**0**	26	0	0	**26**	198	1	0	**199**
	16:30 to 17:30	33	0	0	**33**	1441	20	2	**1463**	28	1	0	**29**	0	0	0	**0**	20	0	0	**20**	202	0	0	**202**
	16:45 to 17:45	37	0	0	**37**	1497	18	1	**1516**	24	1	1	**26**	0	0	0	**0**	18	0	0	**18**	205	0	0	**205**
	17:00 to 18:00	35	0	0	**35**	1527	14	1	**1542**	25	0	1	**26**	0	0	0	**0**	16	0	0	**16**	213	0	0	**213**
	PM Total	59	1	0	**60**	2781	39	3	**2823**	66	2	1	**69**	0	0	0	**0**	45	0	0	**45**	415	1	0	**416**
Saturday WE	12:00 to 13:00	13	0	0	**13**	1164	17	7	**1188**	27	0	0	**27**	0	0	0	**0**	3	0	0	**3**	73	0	0	**73**
	12:15 to 13:15	14	0	0	**14**	1172	19	4	**1195**	28	0	0	**28**	0	0	0	**0**	6	0	0	**6**	82	0	0	**82**
	12:30 to 13:30	18	0	0	**18**	1215	18	4	**1237**	36	0	0	**36**	0	0	0	**0**	7	0	0	**7**	78	0	0	**78**
	12:45 to 13:45	27	0	0	**27**	1223	22	6	**1251**	34	0	0	**34**	0	0	0	**0**	7	0	0	**7**	82	0	0	**82**
	13:00 to 14:00	31	0	0	**31**	1192	22	4	**1218**	33	0	0	**33**	0	0	0	**0**	6	0	0	**6**	71	0	0	**71**
	Sat Total	44	0	0	**44**	2356	39	11	**2406**	60	0	0	**60**	0	0	0	**0**	9	0	0	**9**	144	0	0	**144**

	Approach	Abercrombie St												Myrtle St											
	Direction	Direction 9				Direction 8				Direction 7				Direction 10				Direction 11				Direction 12			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	48	0	0	**48**	15	4	0	**19**	0	0	0	**0**
	7:15 to 8:15	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	52	1	1	**54**	15	2	0	**17**	0	0	0	**0**
	7:30 to 8:30	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	64	1	1	**66**	16	1	0	**17**	0	0	0	**0**
	7:45 to 8:45	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	64	1	1	**66**	15	1	0	**16**	0	0	0	**0**
	8:00 to 9:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	73	1	1	**75**	13	1	0	**14**	0	0	0	**0**
	AM Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**121**	**1**	**1**	**123**	**28**	**5**	**0**	**33**	**0**	**0**	**0**	**0**
Thursday PM	16:00 to 17:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	38	1	0	**39**	16	2	0	**18**	0	0	0	**0**
	16:15 to 17:15	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	43	1	0	**44**	16	2	0	**18**	0	0	0	**0**
	16:30 to 17:30	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	42	1	0	**43**	14	1	0	**15**	0	0	0	**0**
	16:45 to 17:45	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	42	0	0	**42**	14	1	0	**15**	0	0	0	**0**
	17:00 to 18:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	46	0	0	**46**	13	1	0	**14**	0	0	0	**0**
	PM Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**84**	**1**	**0**	**85**	**29**	**3**	**0**	**32**	**0**	**0**	**0**	**0**
Saturday WE	12:00 to 13:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	22	1	0	**23**	5	0	0	**5**	0	0	0	**0**
	12:15 to 13:15	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	21	1	0	**22**	5	0	0	**5**	0	0	0	**0**
	12:30 to 13:30	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	23	0	0	**23**	3	0	0	**3**	0	0	0	**0**
	12:45 to 13:45	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	22	1	0	**23**	6	0	0	**6**	0	0	0	**0**
	13:00 to 14:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	20	1	0	**21**	5	0	0	**5**	0	0	0	**0**
	Sat Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**42**	**2**	**0**	**44**	**10**	**0**	**0**	**10**	**0**	**0**	**0**	**0**

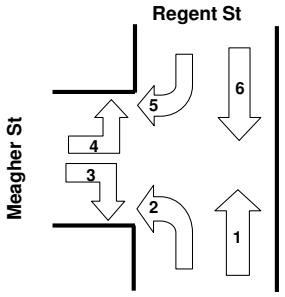
Client : GTA
Site : Balfour St and Meagher St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



	Approach	Balfour St												Meagher St											
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	0	0	0	**0**	1	0	0	**1**	4	0	0	**4**	11	0	0	**11**	103	10	0	**113**	7	0	1	**8**
	7:15 to 8:15	0	0	0	**0**	0	0	0	**0**	4	0	0	**4**	10	0	0	**10**	119	5	0	**124**	9	0	1	**10**
	7:30 to 8:30	0	0	0	**0**	0	0	0	**0**	3	0	0	**3**	14	0	0	**14**	138	4	0	**142**	14	0	1	**15**
	7:45 to 8:45	1	0	0	**1**	0	0	0	**0**	2	0	0	**2**	15	0	0	**15**	145	1	0	**146**	16	0	1	**17**
	8:00 to 9:00	1	0	0	**1**	0	0	0	**0**	2	0	0	**2**	19	0	0	**19**	148	4	1	**153**	23	0	0	**23**
	AM Total	1	0	0	**1**	1	0	0	**1**	6	0	0	**6**	30	0	0	**30**	251	14	1	**266**	30	0	1	**31**
Thursday PM	16:00 to 17:00	5	0	0	**5**	2	0	0	**2**	5	0	0	**5**	10	0	0	**10**	219	1	0	**220**	7	0	0	**7**
	16:15 to 17:15	3	0	0	**3**	1	0	0	**1**	4	0	0	**4**	9	0	0	**9**	214	1	0	**215**	7	0	0	**7**
	16:30 to 17:30	2	0	0	**2**	1	0	0	**1**	7	0	0	**7**	8	0	0	**8**	212	0	0	**212**	8	0	0	**8**
	16:45 to 17:45	3	0	0	**3**	1	0	0	**1**	9	0	0	**9**	8	0	0	**8**	219	0	0	**219**	10	0	0	**10**
	17:00 to 18:00	3	0	0	**3**	1	0	0	**1**	10	0	0	**10**	8	0	0	**8**	216	0	0	**216**	12	0	0	**12**
	PM Total	8	0	0	**8**	3	0	0	**3**	15	0	0	**15**	18	0	0	**18**	435	1	0	**436**	19	0	0	**19**
Saturday WE	12:00 to 13:00	5	0	0	**5**	3	0	0	**3**	2	0	0	**2**	3	0	0	**3**	73	0	0	**73**	4	0	0	**4**
	12:15 to 13:15	3	0	0	**3**	2	0	0	**2**	3	0	0	**3**	3	0	0	**3**	82	0	0	**82**	4	0	0	**4**
	12:30 to 13:30	3	0	0	**3**	1	0	0	**1**	3	0	0	**3**	5	0	0	**5**	81	0	0	**81**	9	0	0	**9**
	12:45 to 13:45	1	0	0	**1**	1	0	0	**1**	3	0	0	**3**	7	0	0	**7**	75	0	0	**75**	7	0	0	**7**
	13:00 to 14:00	1	0	0	**1**	1	0	0	**1**	4	0	0	**4**	7	0	0	**7**	71	0	0	**71**	5	1	0	**6**
	Sat Total	6	0	0	**6**	4	0	0	**4**	6	0	0	**6**	10	0	0	**10**	144	0	0	**144**	9	1	0	**10**

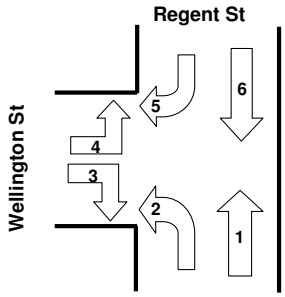
	Approach	Balfour St												Meagher St											
	Direction	Direction 9				Direction 8				Direction 7				Direction 10				Direction 11				Direction 12			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	4	0	0	**4**	0	0	0	**0**	10	4	0	**14**	3	1	0	**4**	29	3	0	**32**	2	0	0	**2**
	7:15 to 8:15	3	0	0	**3**	1	0	0	**1**	11	4	0	**15**	7	0	0	**7**	32	4	0	**36**	3	0	0	**3**
	7:30 to 8:30	1	0	0	**1**	1	0	0	**1**	13	1	0	**14**	11	0	0	**11**	41	3	0	**44**	2	0	0	**2**
	7:45 to 8:45	1	0	0	**1**	2	0	0	**2**	13	0	0	**13**	13	0	0	**13**	45	4	0	**49**	5	0	0	**5**
	8:00 to 9:00	2	0	0	**2**	3	0	0	**3**	14	0	0	**14**	16	0	0	**16**	41	4	0	**45**	7	0	0	**7**
	AM Total	**6**	**0**	**0**	**6**	**3**	**0**	**0**	**3**	**24**	**4**	**0**	**28**	**19**	**1**	**0**	**20**	**70**	**7**	**0**	**77**	**9**	**0**	**0**	**9**
Thursday PM	16:00 to 17:00	7	0	0	**7**	4	0	0	**4**	16	1	0	**17**	9	1	0	**10**	34	3	0	**37**	14	0	0	**14**
	16:15 to 17:15	9	0	0	**9**	5	0	0	**5**	24	2	0	**26**	6	1	0	**7**	30	3	0	**33**	10	0	0	**10**
	16:30 to 17:30	8	0	0	**8**	5	0	0	**5**	29	2	0	**31**	7	1	0	**8**	28	1	0	**29**	8	0	0	**8**
	16:45 to 17:45	8	0	0	**8**	4	0	0	**4**	34	1	0	**35**	5	1	0	**6**	27	0	0	**27**	7	1	0	**8**
	17:00 to 18:00	10	0	0	**10**	4	0	0	**4**	36	1	0	**37**	5	0	0	**5**	31	0	0	**31**	2	1	0	**3**
	PM Total	**17**	**0**	**0**	**17**	**8**	**0**	**0**	**8**	**52**	**2**	**0**	**54**	**14**	**1**	**0**	**15**	**65**	**3**	**0**	**68**	**16**	**1**	**0**	**17**
Saturday WE	12:00 to 13:00	2	0	0	**2**	4	0	0	**4**	14	0	0	**14**	9	0	0	**9**	27	0	0	**27**	5	0	0	**5**
	12:15 to 13:15	2	0	0	**2**	4	0	0	**4**	14	0	0	**14**	9	0	0	**9**	25	0	0	**25**	4	0	0	**4**
	12:30 to 13:30	2	0	0	**2**	2	0	0	**2**	15	1	0	**16**	6	0	0	**6**	26	0	0	**26**	5	0	0	**5**
	12:45 to 13:45	3	0	0	**3**	1	0	0	**1**	12	1	0	**13**	6	0	0	**6**	27	0	0	**27**	6	0	0	**6**
	13:00 to 14:00	3	1	0	**4**	1	0	0	**1**	12	1	0	**13**	6	0	0	**6**	27	0	0	**27**	5	0	0	**5**
	Sat Total	**5**	**1**	**0**	**6**	**5**	**0**	**0**	**5**	**26**	**1**	**0**	**27**	**15**	**0**	**0**	**15**	**54**	**0**	**0**	**54**	**10**	**0**	**0**	**10**

Client : GTA
Site : Regent St and Meagher St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



	Approach	Regent St								Meagher St								Regent St							
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	826	42	51	**919**	76	3	0	**79**	9	1	0	**10**	19	1	0	**20**	53	4	0	**57**	1140	48	14	**1202**
	7:15 to 8:15	886	43	60	**989**	94	3	0	**97**	12	2	0	**14**	23	1	0	**24**	55	4	0	**59**	1187	50	19	**1256**
	7:30 to 8:30	984	38	56	**1078**	103	4	0	**107**	14	3	0	**17**	27	0	0	**27**	63	4	0	**67**	1236	59	28	**1323**
	7:45 to 8:45	1030	41	49	**1120**	108	1	0	**109**	14	3	0	**17**	28	0	0	**28**	64	3	0	**67**	1262	63	36	**1361**
	8:00 to 9:00	1024	38	50	**1112**	114	3	0	**117**	14	3	0	**17**	31	0	0	**31**	64	0	0	**64**	1302	65	38	**1405**
	AM Totals	1850	80	101	**2031**	190	6	0	**196**	23	4	0	**27**	50	1	0	**51**	117	4	0	**121**	2442	113	52	**2607**
Thursday PM	16:00 to 17:00	633	13	39	**685**	165	8	1	**174**	15	3	0	**18**	10	1	0	**11**	54	2	1	**57**	1533	54	19	**1606**
	16:15 to 17:15	674	17	32	**723**	176	7	1	**184**	21	3	0	**24**	9	1	0	**10**	57	1	1	**59**	1590	43	18	**1651**
	16:30 to 17:30	747	16	31	**794**	184	1	1	**186**	22	3	0	**25**	14	0	0	**14**	51	1	0	**52**	1675	33	18	**1726**
	16:45 to 17:45	763	15	29	**807**	182	1	1	**184**	24	1	0	**25**	15	0	0	**15**	58	1	0	**59**	1754	28	19	**1801**
	17:00 to 18:00	804	11	33	**848**	172	1	1	**174**	29	1	0	**30**	22	0	0	**22**	63	1	0	**64**	1878	22	22	**1922**
	PM Totals	1437	24	72	**1533**	337	9	2	**348**	44	4	0	**48**	32	1	0	**33**	117	3	1	**121**	3411	76	41	**3528**
Saturday WE	12:00 to 13:00	694	29	17	**740**	56	1	0	**57**	17	0	0	**17**	17	0	0	**17**	37	0	0	**37**	1190	46	22	**1258**
	12:15 to 13:15	696	26	14	**736**	73	1	0	**74**	14	0	0	**14**	20	0	0	**20**	34	0	0	**34**	1221	40	22	**1283**
	12:30 to 13:30	681	24	12	**717**	85	0	1	**86**	10	0	0	**10**	24	0	0	**24**	35	0	0	**35**	1226	36	17	**1279**
	12:45 to 13:45	688	26	13	**727**	80	1	1	**82**	7	0	0	**7**	24	0	0	**24**	31	0	0	**31**	1240	28	15	**1283**
	13:00 to 14:00	643	23	16	**682**	71	2	1	**74**	5	0	0	**5**	28	0	0	**28**	25	0	0	**25**	1235	22	13	**1270**
	Sat Totals	1337	52	33	**1422**	127	3	1	**131**	22	0	0	**22**	45	0	0	**45**	62	0	0	**62**	2425	68	35	**2528**

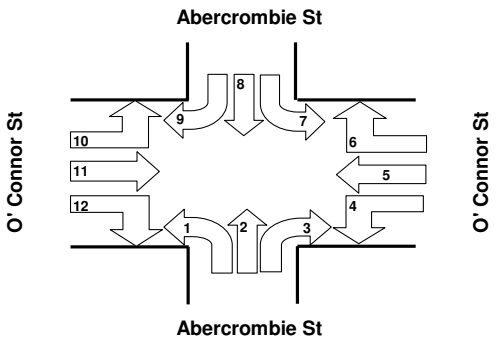
Client : GTA
Site : Regent St and Wellinton St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



Regent St

	Approach	Regent St								Wellington St								Regent St							
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	836	45	50	**931**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	2	0	0	**2**	1183	61	46	**1290**
	7:15 to 8:15	901	46	62	**1009**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	2	0	0	**2**	1355	68	53	**1476**
	7:30 to 8:30	967	38	56	**1061**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	3	0	0	**3**	1352	62	45	**1459**
	7:45 to 8:45	1062	38	53	**1153**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	1378	65	53	**1496**
	8:00 to 9:00	1067	38	51	**1156**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	1378	71	53	**1502**
	AM Totals	1903	83	101	**2087**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	3	0	0	**3**	2561	132	99	**2792**
Thursday PM	16:00 to 17:00	642	12	40	**694**	2	0	0	**2**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	1596	54	26	**1676**
	16:15 to 17:15	676	16	34	**726**	2	0	0	**2**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	1719	46	26	**1791**
	16:30 to 17:30	716	13	30	**759**	2	0	0	**2**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	1839	40	34	**1913**
	16:45 to 17:45	732	11	30	**773**	2	0	0	**2**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	1904	36	39	**1979**
	17:00 to 18:00	830	11	32	**873**	3	0	0	**3**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	1880	24	43	**1947**
	PM Totals	1472	23	72	**1567**	5	0	0	**5**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	3476	78	69	**3623**
Saturday WE	12:00 to 13:00	712	33	20	**765**	6	0	0	**6**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	1236	41	24	**1301**
	12:15 to 13:15	732	30	20	**782**	6	0	0	**6**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	1318	45	23	**1386**
	12:30 to 13:30	721	25	20	**766**	7	0	0	**7**	0	0	0	**0**	0	0	0	**0**	2	0	0	**2**	1324	39	19	**1382**
	12:45 to 13:45	691	20	20	**731**	6	0	0	**6**	0	0	0	**0**	0	0	0	**0**	2	0	0	**2**	1312	36	18	**1366**
	13:00 to 14:00	676	19	19	**714**	6	0	0	**6**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	1287	31	18	**1336**
	Sat Totals	1388	52	39	**1479**	12	0	0	**12**	0	0	0	**0**	0	0	0	**0**	2	0	0	**2**	2523	72	42	**2637**

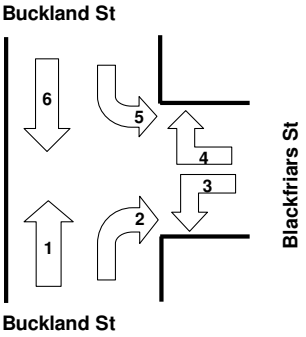
Client : GTA
Site : Abercrombie St and O'Connor St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



Approach	Abercrombie St												O' Connor St											
Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
7:00 to 8:00	4	0	0	**4**	1347	69	13	**1429**	3	0	0	**3**	0	0	0	**0**	1	0	0	**1**	6	0	0	**6**
7:15 to 8:15	3	0	0	**3**	1443	61	8	**1512**	2	0	0	**2**	0	0	0	**0**	0	0	0	**0**	9	0	0	**9**
7:30 to 8:30	4	0	0	**4**	1568	63	8	**1639**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	7	0	0	**7**
7:45 to 8:45	3	0	0	**3**	1531	57	6	**1594**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**	7	0	0	**7**
8:00 to 9:00	8	0	0	**8**	1638	70	4	**1712**	2	0	0	**2**	0	0	0	**0**	0	0	0	**0**	5	0	0	**5**
AM Total	12	0	0	**12**	2985	139	17	**3141**	5	0	0	**5**	0	0	0	**0**	1	0	0	**1**	11	0	0	**11**
16:00 to 17:00	6	0	0	**6**	1523	30	8	**1561**	1	0	0	**1**	0	0	0	**0**	4	0	0	**4**	19	0	0	**19**
16:15 to 17:15	3	0	0	**3**	1554	24	8	**1586**	2	0	0	**2**	0	0	0	**0**	2	0	0	**2**	17	0	0	**17**
16:30 to 17:30	2	0	0	**2**	1679	20	5	**1704**	4	0	0	**4**	0	0	0	**0**	2	0	0	**2**	13	0	0	**13**
16:45 to 17:45	1	0	0	**1**	1685	14	2	**1701**	4	0	0	**4**	0	0	0	**0**	4	0	0	**4**	20	0	0	**20**
17:00 to 18:00	1	0	0	**1**	1795	15	1	**1811**	4	0	0	**4**	0	0	0	**0**	3	0	0	**3**	29	0	0	**29**
PM Total	7	0	0	**7**	3318	45	9	**3372**	5	0	0	**5**	0	0	0	**0**	7	0	0	**7**	48	0	0	**48**
12:00 to 13:00	5	0	0	**5**	1215	33	7	**1255**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	8	0	0	**8**
12:15 to 13:15	5	0	0	**5**	1268	30	7	**1305**	1	0	0	**1**	0	0	0	**0**	1	0	0	**1**	9	1	0	**10**
12:30 to 13:30	5	0	0	**5**	1305	29	4	**1338**	1	0	0	**1**	0	0	0	**0**	1	0	0	**1**	7	1	0	**8**
12:45 to 13:45	3	0	0	**3**	1308	26	6	**1340**	1	0	0	**1**	0	0	0	**0**	0	0	1	**1**	7	1	4	**12**
13:00 to 14:00	3	0	0	**3**	1301	23	5	**1329**	1	0	0	**1**	0	0	0	**0**	0	0	1	**1**	6	1	4	**11**
Sat Total	8	0	0	**8**	2516	56	12	**2584**	1	0	0	**1**	0	0	0	**0**	1	0	1	**2**	14	1	4	**19**

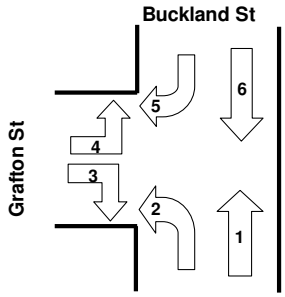
	Approach	Abercrombie St												O' Connor St											
	Direction	Direction 9				Direction 8				Direction 7				Direction 10				Direction 11				Direction 12			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	29	0	0	**29**	8	0	0	**8**	0	0	0	**0**
	7:15 to 8:15	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	35	0	0	**35**	8	0	0	**8**	0	0	0	**0**
	7:30 to 8:30	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	35	1	0	**36**	5	0	0	**5**	0	0	0	**0**
	7:45 to 8:45	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	35	1	0	**36**	0	0	0	**0**	0	0	0	**0**
	8:00 to 9:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	38	1	0	**39**	3	0	0	**3**	0	0	0	**0**
	AM Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**67**	**1**	**0**	**68**	**11**	**0**	**0**	**11**	**0**	**0**	**0**	**0**
Thursday PM	16:00 to 17:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	20	1	0	**21**	0	0	0	**0**	0	0	0	**0**
	16:15 to 17:15	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	21	2	0	**23**	0	0	0	**0**	0	0	0	**0**
	16:30 to 17:30	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	26	1	0	**27**	1	0	0	**1**	0	0	0	**0**
	16:45 to 17:45	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	31	1	0	**32**	1	0	0	**1**	0	0	0	**0**
	17:00 to 18:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	28	1	0	**29**	1	0	0	**1**	0	0	0	**0**
	PM Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**48**	**2**	**0**	**50**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
Saturday WE	12:00 to 13:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	24	0	0	**24**	2	0	0	**2**	0	0	0	**0**
	12:15 to 13:15	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	21	0	0	**21**	1	0	0	**1**	0	0	0	**0**
	12:30 to 13:30	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	18	0	0	**18**	1	0	0	**1**	0	0	0	**0**
	12:45 to 13:45	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	17	0	0	**17**	1	0	0	**1**	0	0	0	**0**
	13:00 to 14:00	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	17	0	0	**17**	2	0	0	**2**	0	0	0	**0**
	Sat Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**41**	**0**	**0**	**41**	**4**	**0**	**0**	**4**	**0**	**0**	**0**	**0**

Client : GTA
Site : Buckland St and Blackfriars St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



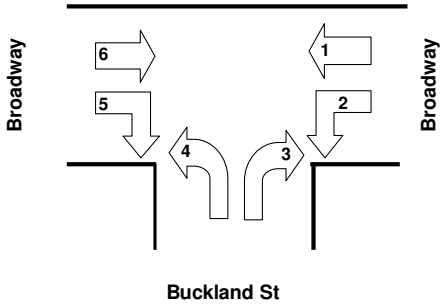
	Approach	Buckland St								Blackfriars St								Buckland St							
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total	Lights	Heavy	Tram	Total
Thursday AM	7:00 to 8:00	28	1	0	**29**	42	0	0	**42**	7	0	0	**7**	12	0	0	**12**	15	0	0	**15**	39	0	0	**39**
	7:15 to 8:15	33	1	0	**34**	51	0	0	**51**	8	0	0	**8**	10	0	0	**10**	16	1	0	**17**	43	0	0	**43**
	7:30 to 8:30	34	1	0	**35**	56	0	0	**56**	8	0	0	**8**	11	0	0	**11**	16	1	0	**17**	44	0	0	**44**
	7:45 to 8:45	35	0	0	**35**	57	0	1	**58**	8	1	0	**9**	9	0	0	**9**	19	1	0	**20**	44	0	0	**44**
	8:00 to 9:00	39	0	0	**39**	51	1	1	**53**	14	1	0	**15**	9	0	0	**9**	29	1	0	**30**	53	0	0	**53**
	AM Total	67	1	0	**68**	93	1	1	**95**	21	1	0	**22**	21	0	0	**21**	44	1	0	**45**	92	0	0	**92**
Thursday PM	16:00 to 17:00	34	2	0	**36**	19	0	0	**19**	14	1	0	**15**	12	0	0	**12**	21	5	0	**26**	76	7	0	**83**
	16:15 to 17:15	31	3	0	**34**	21	0	0	**21**	13	1	0	**14**	12	0	0	**12**	24	4	0	**28**	84	9	0	**93**
	16:30 to 17:30	30	1	0	**31**	23	1	0	**24**	8	1	0	**9**	12	0	0	**12**	36	3	0	**39**	78	9	0	**87**
	16:45 to 17:45	39	1	0	**40**	22	2	0	**24**	7	1	0	**8**	8	1	0	**9**	49	2	0	**51**	89	8	0	**97**
	17:00 to 18:00	42	2	0	**44**	22	2	0	**24**	8	0	0	**8**	10	2	0	**12**	67	2	0	**69**	103	9	0	**112**
	PM Total	76	0	0	**6**	5	1	0	**6**	0	0	0	**0**	0	0	0	**0**	16	1	0	**17**	17	1	0	**18**
Saturday WE	12:00 to 13:00	28	1	0	**29**	16	1	0	**17**	12	0	0	**12**	10	2	0	**12**	11	0	0	**11**	49	1	0	**50**
	12:15 to 13:15	29	3	0	**32**	13	1	0	**14**	11	0	0	**11**	9	1	0	**10**	16	0	0	**16**	42	1	0	**43**
	12:30 to 13:30	32	4	0	**36**	13	1	0	**14**	9	0	0	**9**	6	0	0	**6**	14	1	0	**15**	43	2	0	**45**
	12:45 to 13:45	32	6	0	**38**	15	1	0	**16**	7	0	0	**7**	8	0	0	**8**	14	1	0	**15**	45	3	0	**48**
	13:00 to 14:00	37	5	0	**42**	19	0	0	**19**	5	0	0	**5**	7	0	0	**7**	17	1	0	**18**	43	4	0	**47**
	Sat Total	65	6	0	**71**	35	1	0	**36**	17	0	0	**17**	17	2	0	**19**	28	1	0	**29**	92	5	0	**97**

Client : GTA
Site : Buckland St and Grafton St
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



	Approach	Buckland St								Grafton St								Buckland St							
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	31	1	0	**32**	9	0	0	**9**	8	0	0	**8**	6	0	0	**6**	21	1	0	**22**	46	4	0	**50**
	7:15 to 8:15	34	1	0	**35**	9	0	0	**9**	7	0	0	**7**	3	0	0	**3**	19	0	0	**19**	56	4	0	**60**
	7:30 to 8:30	35	1	0	**36**	10	0	0	**10**	10	0	0	**10**	5	1	0	**6**	26	0	0	**26**	61	2	0	**63**
	7:45 to 8:45	31	0	0	**31**	13	0	0	**13**	13	0	0	**13**	8	1	0	**9**	39	1	0	**40**	66	2	0	**68**
	8:00 to 9:00	37	0	0	**37**	11	0	0	**11**	18	0	0	**18**	8	1	1	**10**	42	1	0	**43**	65	1	1	**67**
	AM Totals	68	1	0	**69**	20	0	0	**20**	26	0	0	**26**	14	1	1	**16**	63	2	0	**65**	111	5	1	**117**
Thursday PM	16:00 to 17:00	28	2	0	**30**	18	0	0	**18**	24	1	0	**25**	7	0	0	**7**	53	3	0	**56**	75	3	0	**78**
	16:15 to 17:15	27	3	0	**30**	16	0	0	**16**	22	1	0	**23**	6	0	0	**6**	52	3	0	**55**	87	3	0	**90**
	16:30 to 17:30	23	1	0	**24**	19	1	0	**20**	21	1	0	**22**	6	0	0	**6**	61	3	0	**64**	106	3	0	**109**
	16:45 to 17:45	27	1	0	**28**	20	2	0	**22**	27	0	0	**27**	5	0	0	**5**	62	2	0	**64**	117	2	0	**119**
	17:00 to 18:00	35	2	0	**37**	17	3	0	**20**	37	0	0	**37**	8	0	0	**8**	65	1	0	**66**	137	1	0	**138**
	PM Totals	63	4	0	**67**	35	3	0	**38**	61	1	0	**62**	15	0	0	**15**	118	4	0	**122**	212	4	0	**216**
Saturday WE	12:00 to 13:00	24	2	0	**26**	14	1	0	**15**	16	0	0	**16**	10	0	0	**10**	28	0	0	**28**	44	0	1	**45**
	12:15 to 13:15	25	4	0	**29**	13	0	0	**13**	16	0	0	**16**	10	1	0	**11**	34	0	0	**34**	38	0	1	**39**
	12:30 to 13:30	25	4	0	**29**	13	0	0	**13**	16	0	0	**16**	9	1	0	**10**	40	0	0	**40**	43	2	0	**45**
	12:45 to 13:45	24	6	0	**30**	16	0	0	**16**	10	0	0	**10**	6	1	0	**7**	36	0	0	**36**	50	3	0	**53**
	13:00 to 14:00	28	5	0	**33**	16	0	0	**16**	13	0	0	**13**	6	1	0	**7**	30	0	0	**30**	44	4	0	**48**
	Sat Totals	52	7	0	**59**	30	1	0	**31**	29	0	0	**29**	16	1	0	**17**	58	0	0	**58**	88	4	1	**93**

Client : GTA
Site : Buckland St and Broadway
Day : Thu 8th & Sat 10th Feb 2007
Description : Classified Intersection Count
: Hourly Summary



	Approach	Broadway								Buckland St								Broadway							
	Direction	Direction 1				Direction 2				Direction 3				Direction 4				Direction 5				Direction 6			
	Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
Thursday AM	7:00 to 8:00	857	45	42	**944**	70	7	0	**77**	0	0	0	**0**	36	1	0	**37**	0	0	0	**0**	2147	195	97	**2439**
	7:15 to 8:15	946	50	47	**1043**	78	6	0	**84**	0	0	0	**0**	39	1	0	**40**	0	0	0	**0**	2175	185	104	**2464**
	7:30 to 8:30	1070	47	54	**1171**	92	6	0	**98**	0	0	0	**0**	43	2	0	**45**	0	0	0	**0**	2197	180	119	**2496**
	7:45 to 8:45	1116	50	62	**1228**	106	6	0	**112**	0	0	0	**0**	44	1	0	**45**	0	0	0	**0**	2240	151	142	**2533**
	8:00 to 9:00	1173	50	76	**1299**	104	5	2	**111**	0	0	0	**0**	43	1	0	**44**	0	0	0	**0**	2371	137	152	**2660**
	AM Total	2030	95	118	**2243**	174	12	2	**188**	0	0	0	**0**	79	2	0	**81**	0	0	0	**0**	4518	332	249	**5099**
Thursday PM	16:00 to 17:00	1719	59	79	**1857**	138	0	0	**138**	0	0	0	**0**	31	0	0	**31**	0	0	0	**0**	1698	46	75	**1819**
	16:15 to 17:15	1817	50	97	**1964**	154	0	0	**154**	0	0	0	**0**	33	0	0	**33**	0	0	0	**0**	1763	38	84	**1885**
	16:30 to 17:30	1837	36	101	**1974**	165	0	0	**165**	0	0	0	**0**	31	0	0	**31**	0	0	0	**0**	1751	42	77	**1870**
	16:45 to 17:45	1918	40	123	**2081**	182	0	0	**182**	0	0	0	**0**	26	0	0	**26**	0	0	0	**0**	1749	48	77	**1874**
	17:00 to 18:00	2039	31	124	**2194**	202	0	0	**202**	0	0	0	**0**	32	0	0	**32**	0	0	0	**0**	1797	43	70	**1910**
	PM Total	3758	90	203	**4051**	340	0	0	**340**	0	0	0	**0**	63	0	0	**63**	0	0	0	**0**	3495	89	145	**3729**
Saturday WE	12:00 to 13:00	1478	45	48	**1571**	83	1	1	**85**	0	0	0	**0**	40	0	0	**40**	0	0	0	**0**	1670	20	56	**1746**
	12:15 to 13:15	1506	52	51	**1609**	84	1	1	**86**	0	0	0	**0**	40	0	0	**40**	0	0	0	**0**	1683	18	58	**1759**
	12:30 to 13:30	1528	65	54	**1647**	87	2	0	**89**	0	0	0	**0**	36	0	0	**36**	0	0	0	**0**	1667	22	55	**1744**
	12:45 to 13:45	1607	63	61	**1731**	86	4	0	**90**	0	0	0	**0**	40	0	0	**40**	0	0	0	**0**	1741	25	59	**1825**
	13:00 to 14:00	1562	70	60	**1692**	68	3	1	**72**	0	0	0	**0**	31	0	0	**31**	0	0	0	**0**	1621	26	54	**1701**
	Sat Total	3040	115	108	**3263**	151	4	2	**157**	0	0	0	**0**	71	0	0	**71**	0	0	0	**0**	3291	46	110	**3447**

Mid-Block Traffic Counts

CHIPPENDALE LATM STUDY - CONCEPT PROPOSALS SUMMARY - 2007
TUBE COUNT SURVEY SUMMARY

CONSULTANTS

Street Name	Location	Direction	AM Volume (veh/hr)	PM Volume (veh/hr)	% Heavy	85th Percentile Speed (km/hr)
Myrtle Street	Between Rose Street & Shepherd Street	Eastbound	47	58	3%	35
		Westbound	84	67	3%	36
Shepherd Street	Between Paints Lane & Daniels Street	Northbound	95	64	4%	40
		Southbound	71	105	3%	42
Buckland Street	Between Myrtle Street & O'Connor Street	Northbound	67	61	4%	40
		Southbound	92	92	3%	48
O'Connor Street	Between Buckland Street & Smithers Street	Eastbound	45	28	2%	39
		Westbound	26	24	3%	28
Levey Street	Between Smithers Street & Abercrombie Street	Eastbound	19	18	3%	30
Wiley Street	Between Dangar Place & Myrtle Street	Northbound	37	39	3%	32
		Southbound	59	73	3%	35
Myrtle Street	Between Wiley Street & Smithers Street	Eastbound	68	53	4%	35
		Westbound	70	65	4%	37
Meagher Street	Between Chippen Street & Chippen Lane	Eastbound	197	273	4%	47
		Westbound	124	114	6%	39
Little Queen Street	Between Abercrombie Street & Balfour Street	Eastbound	27	16	6%	34
		Westbound	23	34	2%	36
Queen Street	Between Balfour Street & Chippen Street	Eastbound	33	32	4%	37
		Westbound	38	43	3%	39
Wellington Street	Between Balfour Street & Regent Street	Westbound	12	11	6%	32
Abercrombie Street	Between Dick Street & O'Connor Street	Northbound	1,702	1,766	7%	56
City Road	North of Myrtle Street	Northbound	1,882	1,536	8%	65
		Southbound	1,499	1,749	7%	58

CfeIT bob.white@cfeit.com (02) 9740 8600

Traffic Count Summary Report

Count Number	**981**	Ref : **GTA**	Directory Ref : **UBD 256 A-1**
Street	**ABERCROMBIE STREET, CHIPPENDALE : From SHEPHERD STREET to PARRAMATTA ROAD : NORTH BOUND**		
Location	Combined Counts 968, 978, 980 Northbound, Between Dick Street and O'Connor Street, House No. , ELP		*Carriageway*

TOTAL COUNT MATRIX

Start Date	20-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	45
Weekly 85th Percentile Speed	56
Five Day AADT	21927
Seven Day AADT	20542

	MON *26TH*	TUE *20TH*	WED *21ST*	THU *22ND*	FRI *23RD*	SAT *24TH*	SUN *25TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	134	135	186	156	226	333	380	**837**	**167**	**1550**	**221**
1am - 2am	67	61	92	103	112	210	212	**435**	**87**	**857**	**122**
2am - 3am	57	59	73	83	83	147	161	**355**	**71**	**663**	**95**
3am - 4am	81	74	78	86	79	131	135	**398**	**80**	**664**	**95**
4am - 5am	148	139	109	118	120	102	107	**634**	**127**	**843**	**120**
5am - 6am	389	373	380	398	415	233	129	**1955**	**391**	**2317**	**331**
6am - 7am	957	1026	1019	1038	993	466	232	**5033**	**1007**	**5731**	**819**
7am - 8am	1605	**1528**	**1539**	1552	1497	622	374	**7721**	**1544**	**8717**	**1245**
8am - 9am	**1702**	1210	1127	**1564**	**1521**	926	688	**7124**	**1425**	**8738**	**1248**
9am - 10am	1370	1381	1364	1155	1227	1088	1102	**6497**	**1299**	**8687**	**1241**
10am - 11am	1155	1062	1183	1096	1222	1163	911	**5718**	**1144**	**7792**	**1113**
11am - Midday	1159	1095	1145	1164	1233	**1339**	**1114**	**5796**	**1159**	**8249**	**1178**
Midday - 1pm	1139	1137	1197	1179	1229	**1338**	**1142**	**5881**	**1176**	**8361**	**1194**
1pm - 2pm	1178	1187	1126	1212	1224	1263	1117	**5927**	**1185**	**8307**	**1187**
2pm - 3pm	1230	1245	1337	1283	1382	1186	1079	**6477**	**1295**	**8742**	**1249**
3pm - 4pm	1399	1453	1442	1472	1513	1183	925	**7279**	**1456**	**9387**	**1341**
4pm - 5pm	1558	1593	1554	1584	1570	1088	1024	**7859**	**1572**	**9971**	**1424**
5pm - 6pm	**1704**	**1766**	**1746**	**1630**	**1664**	1186	1011	**8510**	**1702**	**10707**	**1530**
6pm - 7pm	1393	1366	1487	1481	1363	1123	945	**7090**	**1418**	**9158**	**1308**
7pm - 8pm	905	1022	1027	1093	1102	852	712	**5149**	**1030**	**6713**	**959**
8pm - 9pm	731	791	722	804	809	648	686	**3857**	**771**	**5191**	**742**
9pm - 10pm	601	717	688	918	712	594	655	**3636**	**727**	**4885**	**698**
10pm - 11pm	485	613	558	985	718	613	585	**3359**	**672**	**4557**	**651**
11pm - Midnight	296	363	335	554	562	532	368	**2110**	**422**	**3010**	**430**
Total	**21443**	**21396**	**21514**	**22708**	**22576**	**18366**	**15794**	**109637**	**21927**	**143797**	**20542**

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Traffic Count Summary Report

Count Number	**960**	Ref : **GTA**	Directory Ref : **UBD 255 Q-1**
Street	**BUCKLAND STREET, CHIPPENDALE : From BROADWAY to MYRTLE STREET : SOUTH BOUND**		
Location	Between Levey Street and O'Connor Street, House No.75, ELP SY 07238		*Carriageway*

TOTAL COUNT MATRIX

Start Date	05-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	37
Weekly 85th Percentile Speed	48
Five Day AADT	996
Seven Day AADT	896

	MON *5TH*	TUE *6TH*	WED *7TH*	THU *8TH*	FRI *9TH*	SAT *10TH*	SUN *11TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	9	8	6	12	19	25	24	**54**	**11**	**103**	**15**
1am - 2am	8	6	7	6	12	18	23	**39**	**8**	**80**	**11**
2am - 3am	3	2	1	5	7	16	16	**18**	**4**	**50**	**7**
3am - 4am	1	1	2	6	2	12	8	**12**	**2**	**32**	**5**
4am - 5am	2	1	2	1	3	13	5	**9**	**2**	**27**	**4**
5am - 6am	11	5	6	9	7	7	7	**38**	**8**	**52**	**7**
6am - 7am	15	7	13	24	27	7	3	**86**	**17**	**96**	**14**
7am - 8am	37	43	37	59	38	24	8	**214**	**43**	**246**	**35**
8am - 9am	**92**	74	**91**	**80**	**91**	21	16	**428**	**86**	**465**	**66**
9am - 10am	71	**89**	79	68	65	27	29	**372**	**74**	**428**	**61**
10am - 11am	61	68	49	70	74	39	**38**	**322**	**64**	**399**	**57**
11am - Midday	43	58	59	77	49	**47**	34	**286**	**57**	**367**	**52**
Midday - 1pm	53	72	48	62	54	47	39	**289**	**58**	**375**	**54**
1pm - 2pm	56	63	38	54	60	37	37	**271**	**54**	**345**	**49**
2pm - 3pm	41	65	71	62	49	35	31	**288**	**58**	**354**	**51**
3pm - 4pm	57	67	53	66	79	**50**	29	**322**	**64**	**401**	**57**
4pm - 5pm	72	63	60	76	76	41	43	**347**	**69**	**431**	**62**
5pm - 6pm	**86**	87	67	**83**	**92**	41	**51**	**415**	**83**	**507**	**72**
6pm - 7pm	67	**90**	**91**	69	73	44	38	**390**	**78**	**472**	**67**
7pm - 8pm	46	48	50	45	54	38	31	**243**	**49**	**312**	**45**
8pm - 9pm	22	41	31	35	38	27	30	**167**	**33**	**224**	**32**
9pm - 10pm	33	29	24	28	30	22	25	**144**	**29**	**191**	**27**
10pm - 11pm	15	21	15	27	38	24	18	**116**	**23**	**158**	**23**
11pm - Midnight	12	14	24	29	32	28	18	**111**	**22**	**157**	**22**
Total	**913**	**1022**	**924**	**1053**	**1069**	**690**	**601**	**4981**	**996**	**6272**	**896**

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Traffic Count Summary Report

Count Number	**960**	Ref : **GTA**	Directory Ref : **UBD 255 Q-1**
Street	**BUCKLAND STREET, CHIPPENDALE : From MYRTLE STREET to BROADWAY : NORTH BOUND**		
Location	Between Levey Street and O'Connor Street, House No.75, ELP SY 07238		*Carriageway*

TOTAL COUNT MATRIX

Start Date	05-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	31
Weekly 85th Percentile Speed	40
Five Day AADT	621
Seven Day AADT	557

	MON *5TH*	TUE *6TH*	WED *7TH*	THU *8TH*	FRI *9TH*	SAT *10TH*	SUN *11TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	2	4	1	4	2	7	10	**13**	**3**	**30**	**4**
1am - 2am	0	0	1	4	2	11	7	**7**	**1**	**25**	**4**
2am - 3am	1	3	2	1	1	2	3	**8**	**2**	**13**	**2**
3am - 4am	0	0	2	3	0	2	5	**5**	**1**	**12**	**2**
4am - 5am	2	3	1	1	2	3	8	**9**	**2**	**20**	**3**
5am - 6am	6	2	8	6	5	4	0	**27**	**5**	**31**	**4**
6am - 7am	17	12	22	20	15	4	3	**86**	**17**	**93**	**13**
7am - 8am	23	39	31	31	36	16	6	**160**	**32**	**182**	**26**
8am - 9am	**58**	61	**65**	**65**	**51**	18	9	**300**	**60**	**327**	**47**
9am - 10am	52	**67**	59	52	46	21	21	**276**	**55**	**318**	**45**
10am - 11am	28	44	26	41	30	27	**27**	**169**	**34**	**223**	**32**
11am - Midday	27	38	37	45	34	**37**	18	**181**	**36**	**236**	**34**
Midday - 1pm	27	36	32	42	34	33	21	**171**	**34**	**225**	**32**
1pm - 2pm	24	42	33	34	27	**41**	**43**	**160**	**32**	**244**	**35**
2pm - 3pm	19	26	34	41	29	30	14	**149**	**30**	**193**	**28**
3pm - 4pm	48	45	37	43	51	20	29	**224**	**45**	**273**	**39**
4pm - 5pm	43	39	42	42	38	26	21	**204**	**41**	**251**	**36**
5pm - 6pm	56	**61**	**61**	**56**	**56**	28	23	**290**	**58**	**341**	**49**
6pm - 7pm	**59**	50	52	51	50	25	30	**262**	**52**	**317**	**45**
7pm - 8pm	17	26	34	33	31	15	10	**141**	**28**	**166**	**24**
8pm - 9pm	16	19	9	24	27	10	18	**95**	**19**	**123**	**18**
9pm - 10pm	19	23	17	15	11	16	13	**85**	**17**	**114**	**16**
10pm - 11pm	9	15	12	6	18	18	14	**60**	**12**	**92**	**13**
11pm - Midnight	3	1	4	7	8	12	13	**23**	**5**	**48**	**7**
Total	**556**	**656**	**622**	**667**	**604**	**426**	**366**	**3105**	**621**	**3897**	**556**

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Traffic Count Summary Report

Count Number	**977**	Ref : **GTA**	Directory Ref : **UBD 255 P-1**
Street	**CITY ROAD, DARLINGTON : From BROADWAY to CLEVELAND STREET : NORTH BOUND**		
Location	Combined Counts 974, 975, 976 and 1173 Northbound, north of Myrtle Street, House No. , ELP		*Carriageway*

TOTAL COUNT MATRIX

Start Date	20-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	53
Weekly 85th Percentile Speed	65
Five Day AADT	24240
Seven Day AADT	23591

	MON *26TH*	TUE *20TH*	WED *21ST*	THU *22ND*	FRI *23RD*	SAT *24TH*	SUN *25TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	284	233	355	303	419	722	768	**1594**	**319**	**3084**	**441**
1am - 2am	184	148	241	236	274	463	532	**1083**	**217**	**2078**	**297**
2am - 3am	143	114	155	173	184	397	414	**769**	**154**	**1580**	**226**
3am - 4am	201	161	167	188	219	475	507	**936**	**187**	**1918**	**274**
4am - 5am	271	249	272	245	286	271	337	**1323**	**265**	**1931**	**276**
5am - 6am	554	587	561	545	574	456	288	**2821**	**564**	**3565**	**509**
6am - 7am	1151	1253	1290	1278	1204	716	354	**6176**	**1235**	**7246**	**1035**
7am - 8am	1785	**1845**	1811	**1865**	**1796**	832	486	**9102**	**1820**	**10420**	**1489**
8am - 9am	**1882**	1765	**1870**	1753	1789	1161	673	**9059**	**1812**	**10893**	**1556**
9am - 10am	1386	1470	1486	1430	1418	1371	1043	**7190**	**1438**	**9604**	**1372**
10am - 11am	1222	1140	1143	1142	1180	1398	1199	**5827**	**1165**	**8424**	**1203**
11am - Midday	1232	1234	1263	1191	1138	**1519**	**1286**	**6058**	**1212**	**8863**	**1266**
Midday - 1pm	1238	1251	1282	1267	1296	**1506**	1252	**6334**	**1267**	**9092**	**1299**
1pm - 2pm	1173	1155	1138	1185	1320	1477	**1301**	**5971**	**1194**	**8749**	**1250**
2pm - 3pm	1348	1252	1285	1266	1381	1319	1236	**6532**	**1306**	**9087**	**1298**
3pm - 4pm	1473	1467	1410	1412	**1487**	1324	1160	**7249**	**1450**	**9733**	**1390**
4pm - 5pm	**1483**	**1572**	**1534**	**1536**	1485	1317	1154	**7610**	**1522**	**10081**	**1440**
5pm - 6pm	1458	1493	1439	1465	1481	1315	1184	**7336**	**1467**	**9835**	**1405**
6pm - 7pm	1340	1382	1290	1420	1335	1198	1087	**6767**	**1353**	**9052**	**1293**
7pm - 8pm	1008	1090	1070	1017	1086	1036	812	**5271**	**1054**	**7119**	**1017**
8pm - 9pm	836	1017	953	955	940	882	872	**4701**	**940**	**6455**	**922**
9pm - 10pm	784	918	879	906	904	882	761	**4391**	**878**	**6034**	**862**
10pm - 11pm	607	862	788	857	938	954	658	**4052**	**810**	**5664**	**809**
11pm - Midnight	358	537	499	709	945	1002	579	**3048**	**610**	**4629**	**661**
Total	**23401**	**24195**	**24181**	**24344**	**25079**	**23993**	**19943**	**121200**	**24240**	**165136**	**23590**

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Traffic Count Summary Report

Count Number 973 Ref : **GTA** Directory Ref : **UBD 255 P-1**

Street **CITY ROAD, DARLINGTON : From BROADWAY to CLEVELAND STREET : SOUTH BOUND**

Location Combined Counts 970, 971 and 972 Southbound, north of Myrtle Street, House No. , ELP *Carriageway*

TOTAL COUNT MATRIX

Start Date	05-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	48
Weekly 85th Percentile Speed	58
Five Day AADT	24680
Seven Day AADT	24072

	MON *5TH*	TUE *6TH*	WED *7TH*	THU *8TH*	FRI *9TH*	SAT *10TH*	SUN *11TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	321	299	370	347	465	683	764	**1802**	**360**	**3249**	**464**
1am - 2am	207	201	233	216	312	506	564	**1169**	**234**	**2239**	**320**
2am - 3am	139	147	152	167	218	467	468	**823**	**165**	**1758**	**251**
3am - 4am	128	125	158	146	172	333	360	**729**	**146**	**1422**	**203**
4am - 5am	198	156	165	189	202	312	281	**910**	**182**	**1503**	**215**
5am - 6am	445	481	481	452	469	341	287	**2328**	**466**	**2956**	**422**
6am - 7am	1126	1121	1094	1136	1040	638	325	**5517**	**1103**	**6480**	**926**
7am - 8am	1343	1322	1325	1298	1330	764	435	**6618**	**1324**	**7817**	**1117**
8am - 9am	**1465**	**1442**	**1475**	**1499**	**1476**	992	594	**7357**	**1471**	**8943**	**1278**
9am - 10am	1376	1378	1460	1457	1402	1219	854	**7073**	**1415**	**9146**	**1307**
10am - 11am	1337	1364	1341	1363	1380	1315	1155	**6785**	**1357**	**9255**	**1322**
11am - Midday	1255	1251	1331	1348	1419	**1421**	**1325**	**6604**	**1321**	**9350**	**1336**
Midday - 1pm	1228	1273	1278	1282	1305	1476	1445	**6366**	**1273**	**9287**	**1327**
1pm - 2pm	1242	1322	1316	1385	1366	**1511**	**1515**	**6631**	**1326**	**9657**	**1380**
2pm - 3pm	1318	1342	1317	1301	1424	1404	1284	**6702**	**1340**	**9390**	**1341**
3pm - 4pm	1456	1514	1512	1423	1550	1410	1285	**7455**	**1491**	**10150**	**1450**
4pm - 5pm	1552	1569	**1671**	1607	1672	1411	1363	**8071**	**1614**	**10845**	**1549**
5pm - 6pm	**1763**	1716	1382	**1749**	**1743**	1472	1316	**8353**	**1671**	**11141**	**1592**
6pm - 7pm	1605	**1756**	1557	1712	1700	1473	1270	**8330**	**1666**	**11073**	**1582**
7pm - 8pm	1124	1172	1394	1364	1530	1268	937	**6584**	**1317**	**8789**	**1256**
8pm - 9pm	860	947	905	1066	1078	1010	828	**4856**	**971**	**6694**	**956**
9pm - 10pm	838	1010	954	1063	1000	985	829	**4865**	**973**	**6679**	**954**
10pm - 11pm	668	751	792	905	999	981	669	**4115**	**823**	**5765**	**824**
11pm - Midnight	575	608	577	651	945	1077	483	**3356**	**671**	**4916**	**702**
Total	**23569**	**24267**	**24240**	**25126**	**26197**	**24469**	**20636**	**123399**	**24679**	**168504**	**24072**

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Traffic Count Summary Report

Count Number 962 Ref : **GTA** Directory Ref : **UBD 255 Q-1**

Street **LEVEY STREET, CHIPPENDALE : From BUCKLAND STREET to ABERCROMBIE STREET : EAST BOUND**

Location Between Smithers Street and Abercrombie Street, House No.38 *Carriageway*

TOTAL COUNT MATRIX

Start Date	05-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	24
Weekly 85th Percentile Speed	30
Five Day AADT	148
Seven Day AADT	125

	MON *5TH*	TUE *6TH*	WED *7TH*	THU *8TH*	FRI *9TH*	SAT *10TH*	SUN *11TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	0	0	0	3	1	0	0	**4**	**1**	**4**	**1**
1am - 2am	0	0	0	0	0	1	3	**0**	**0**	**4**	**1**
2am - 3am	0	0	0	0	0	1	1	**0**	**0**	**2**	**0**
3am - 4am	0	0	0	2	1	0	1	**3**	**1**	**4**	**1**
4am - 5am	0	0	0	0	0	1	0	**0**	**0**	**1**	**0**
5am - 6am	2	4	1	2	3	1	1	**12**	**2**	**14**	**2**
6am - 7am	1	6	3	6	5	2	0	**21**	**4**	**23**	**3**
7am - 8am	**14**	12	9	17	**18**	1	1	**70**	**14**	**72**	**10**
8am - 9am	10	9	4	**19**	12	2	1	**54**	**11**	**57**	**8**
9am - 10am	8	15	8	16	11	5	5	**58**	**12**	**68**	**10**
10am - 11am	10	**19**	11	13	10	3	5	**63**	**13**	**71**	**10**
11am - Midday	8	8	**13**	15	**18**	**8**	**8**	**62**	**12**	**78**	**11**
Midday - 1pm	6	11	**18**	10	8	4	3	**53**	**11**	**60**	**9**
1pm - 2pm	13	**15**	11	6	7	7	**5**	**52**	**10**	**64**	**9**
2pm - 3pm	4	8	3	4	10	**13**	3	**29**	**6**	**45**	**6**
3pm - 4pm	**15**	8	10	9	**16**	2	**5**	**58**	**12**	**65**	**9**
4pm - 5pm	7	9	8	13	7	1	3	**44**	**9**	**48**	**7**
5pm - 6pm	3	2	8	**15**	9	5	2	**37**	**7**	**44**	**6**
6pm - 7pm	8	8	10	9	12	3	4	**47**	**9**	**54**	**8**
7pm - 8pm	1	2	5	3	7	5	2	**18**	**4**	**25**	**4**
8pm - 9pm	5	6	2	4	4	0	1	**21**	**4**	**22**	**3**
9pm - 10pm	3	4	5	2	4	3	1	**18**	**4**	**22**	**3**
10pm - 11pm	1	0	6	1	2	3	3	**10**	**2**	**16**	**2**
11pm - Midnight	0	1	2	0	2	2	3	**5**	**1**	**10**	**1**
Total	**119**	**147**	**137**	**169**	**167**	**73**	**61**	**739**	**147**	**873**	**124**

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Traffic Count Summary Report

Count Number	**965**	Ref : **GTA**	Directory Ref : **UBD 256 A-2**
Street	**LITTLE QUEEN STREET, CHIPPENDALE : From ABERCROMBIE STREET to BALFOUR STREET : EAST BOUND**		
Location	Between Abercrombie Street and Balfour Street, House No. , ELP		*Carriageway*

TOTAL COUNT MATRIX

Start Date	14-FEB-07
Start Time	1000
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	25
Weekly 85th Percentile Speed	34
Five Day AADT	135
Seven Day AADT	120

	MON *19TH*	TUE *20TH*	WED *14TH / 21ST*	THU *15TH*	FRI *16TH*	SAT *17TH*	SUN *18TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	2	0	0	2	0	2	1	**4**	**1**	**7**	**1**
1am - 2am	0	0	0	0	1	2	1	**1**	**0**	**4**	**1**
2am - 3am	0	0	1	1	0	0	1	**2**	**0**	**3**	**0**
3am - 4am	1	0	0	0	0	0	0	**1**	**0**	**1**	**0**
4am - 5am	1	0	0	0	0	0	0	**1**	**0**	**1**	**0**
5am - 6am	2	2	0	1	1	0	0	**6**	**1**	**6**	**1**
6am - 7am	1	2	0	3	3	2	0	**9**	**2**	**11**	**2**
7am - 8am	12	10	11	9	10	0	0	**52**	**10**	**52**	**7**
8am - 9am	**17**	**15**	**13**	**19**	**27**	5	2	**91**	**18**	**98**	**14**
9am - 10am	9	8	0	9	9	4	1	**35**	**7**	**40**	**6**
10am - 11am	5	12	3	8	11	**6**	4	**39**	**8**	**49**	**7**
11am - Midday	11	5	5	7	11	**6**	**5**	**39**	**8**	**50**	**7**
Midday - 1pm	7	4	**16**	10	11	6	**12**	**48**	**10**	**66**	**9**
1pm - 2pm	**13**	7	11	8	11	6	8	**50**	**10**	**64**	**9**
2pm - 3pm	4	4	7	**11**	9	8	5	**35**	**7**	**48**	**7**
3pm - 4pm	6	9	11	8	**15**	7	4	**49**	**10**	**60**	**9**
4pm - 5pm	6	14	7	8	7	**11**	3	**42**	**8**	**56**	**8**
5pm - 6pm	8	**15**	11	6	12	2	9	**52**	**10**	**63**	**9**
6pm - 7pm	9	4	15	**11**	**15**	4	5	**54**	**11**	**63**	**9**
7pm - 8pm	3	6	4	2	8	4	4	**23**	**5**	**31**	**4**
8pm - 9pm	2	5	5	2	3	1	5	**17**	**3**	**23**	**3**
9pm - 10pm	1	3	2	1	4	2	5	**11**	**2**	**18**	**3**
10pm - 11pm	0	2	0	2	4	2	1	**8**	**2**	**11**	**2**
11pm - Midnight	2	2	1	0	2	8	0	**7**	**1**	**15**	**2**
Total	**122**	**129**	**123**	**128**	**174**	**88**	**76**	**676**	**135**	**840**	**120**

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Traffic Count Summary Report

Count Number 965 Ref : **GTA** Directory Ref : **UBD 256 A-2**

Street **LITTLE QUEEN STREET, CHIPPENDALE : From BALFOUR STREET to ABERCROMBIE STREET : WEST BOUND**

Location Between Abercrombie Street and Balfour Street, House No. , ELP *Carriageway*

TOTAL COUNT MATRIX

Start Date	14-FEB-07
Start Time	1000
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	27
Weekly 85th Percentile Speed	36
Five Day AADT	184
Seven Day AADT	163

	MON *19TH*	TUE *20TH*	WED *14TH / 21ST*	THU *15TH*	FRI *16TH*	SAT *17TH*	SUN *18TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	2	0	1	2	0	1	6	**5**	**1**	**12**	**2**
1am - 2am	1	0	1	2	0	0	0	**4**	**1**	**4**	**1**
2am - 3am	0	2	1	1	1	2	2	**5**	**1**	**9**	**1**
3am - 4am	2	0	0	4	0	1	1	**6**	**1**	**8**	**1**
4am - 5am	1	0	0	0	1	1	2	**2**	**0**	**5**	**1**
5am - 6am	0	2	2	5	2	0	2	**11**	**2**	**13**	**2**
6am - 7am	1	2	2	1	1	1	0	**7**	**1**	**8**	**1**
7am - 8am	**15**	9	11	12	**15**	2	0	**62**	**12**	**64**	**9**
8am - 9am	10	19	**13**	14	**15**	4	2	**71**	**14**	**77**	**11**
9am - 10am	10	9	0	10	4	7	7	**33**	**7**	**47**	**7**
10am - 11am	4	13	3	12	7	**12**	**8**	**39**	**8**	**59**	**8**
11am - Midday	9	**23**	12	**15**	7	9	6	**66**	**13**	**81**	**12**
Midday - 1pm	7	14	6	14	11	8	**10**	**52**	**10**	**70**	**10**
1pm - 2pm	14	13	13	6	10	5	7	**56**	**11**	**68**	**10**
2pm - 3pm	5	17	10	14	6	8	8	**52**	**10**	**68**	**10**
3pm - 4pm	13	10	13	16	14	10	5	**66**	**13**	**81**	**12**
4pm - 5pm	9	**18**	14	7	13	7	3	**61**	**12**	**71**	**10**
5pm - 6pm	**19**	15	27	14	13	**12**	9	**88**	**18**	**109**	**16**
6pm - 7pm	**19**	17	**34**	**22**	**19**	4	8	**111**	**22**	**123**	**18**
7pm - 8pm	4	8	4	7	12	4	4	**35**	**7**	**43**	**6**
8pm - 9pm	7	3	7	8	6	7	5	**31**	**6**	**43**	**6**
9pm - 10pm	2	3	2	4	3	4	5	**14**	**3**	**23**	**3**
10pm - 11pm	3	7	4	3	9	5	3	**26**	**5**	**34**	**5**
11pm - Midnight	1	7	2	3	3	5	2	**16**	**3**	**23**	**3**
Total	**158**	**211**	**182**	**196**	**172**	**119**	**105**	**919**	**183**	**1143**	**163**

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Traffic Count Summary Report

Count Number	**963**	Ref : **GTA**	Directory Ref : **UBD 256 B-2**
Street	**MEAGHER STREET, CHIPPENDALE : From ABERCROMBIE STREET to REGENT STREET : WEST BOUND**		
Location	Between Chippen Street and Chippen Lane, House No.54		*Carriageway*

TOTAL COUNT MATRIX

Start Date	14-FEB-07
Start Time	1200
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	32
Weekly 85th Percentile Speed	39
Five Day AADT	1172
Seven Day AADT	1023

	MON *19TH*	TUE *20TH*	WED *14TH / 21ST*	THU *15TH*	FRI *16TH*	SAT *17TH*	SUN *18TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	8	4	15	11	7	23	24	**45**	**9**	**92**	**13**
1am - 2am	7	7	5	5	9	7	14	**33**	**7**	**54**	**8**
2am - 3am	2	1	4	6	2	8	16	**15**	**3**	**39**	**6**
3am - 4am	4	5	1	8	4	11	8	**22**	**4**	**41**	**6**
4am - 5am	7	4	8	5	11	9	8	**35**	**7**	**52**	**7**
5am - 6am	10	11	9	5	12	5	11	**47**	**9**	**63**	**9**
6am - 7am	43	32	37	38	37	12	12	**187**	**37**	**211**	**30**
7am - 8am	55	67	64	56	63	26	12	**305**	**61**	**343**	**49**
8am - 9am	**108**	**124**	**115**	**91**	87	33	22	**525**	**105**	**580**	**83**
9am - 10am	78	108	110	75	**89**	52	23	**460**	**92**	**535**	**76**
10am - 11am	49	79	81	81	77	**62**	27	**367**	**73**	**456**	**65**
11am - Midday	69	69	70	61	64	46	**28**	**333**	**67**	**407**	**58**
Midday - 1pm	64	64	71	72	67	**67**	37	**338**	**68**	**442**	**63**
1pm - 2pm	61	58	78	63	64	63	32	**324**	**65**	**419**	**60**
2pm - 3pm	63	62	57	72	61	55	**49**	**315**	**63**	**419**	**60**
3pm - 4pm	91	72	98	71	89	45	40	**421**	**84**	**506**	**72**
4pm - 5pm	92	**83**	94	105	**100**	29	42	**474**	**95**	**545**	**78**
5pm - 6pm	**111**	**83**	**114**	**110**	94	32	35	**512**	**102**	**579**	**83**
6pm - 7pm	73	71	113	81	88	29	30	**426**	**85**	**485**	**69**
7pm - 8pm	39	34	50	38	38	39	17	**199**	**40**	**255**	**36**
8pm - 9pm	14	31	27	36	25	17	23	**133**	**27**	**173**	**25**
9pm - 10pm	25	36	29	25	33	21	23	**148**	**30**	**192**	**27**
10pm - 11pm	21	21	18	23	24	21	17	**107**	**21**	**145**	**21**
11pm - Midnight	13	12	19	21	24	20	20	**89**	**18**	**129**	**18**
Total	**1107**	**1138**	**1287**	**1159**	**1169**	**732**	**570**	**5860**	**1172**	**7162**	**1023**

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Traffic Count Summary Report

Count Number	**963**	Ref : **GTA**	Directory Ref : **UBD 256 B-2**
Street	**MEAGHER STREET, CHIPPENDALE : From REGENT STREET to ABERCROMBIE STREET : EAST BOUND**		
Location	Between Chippen Street and Chippen Lane, House No.54		*Carriageway*

TOTAL COUNT MATRIX

Start Date	14-FEB-07
Start Time	1200
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	37
Weekly 85th Percentile Speed	47
Five Day AADT	2277
Seven Day AADT	1986

	MON *19TH*	TUE *20TH*	WED *14TH / 21ST*	THU *15TH*	FRI *16TH*	SAT *17TH*	SUN *18TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	16	18	20	28	18	31	39	**100**	**20**	**170**	**24**
1am - 2am	14	6	21	14	15	23	29	**70**	**14**	**122**	**17**
2am - 3am	6	6	9	15	17	22	20	**53**	**11**	**95**	**14**
3am - 4am	7	14	8	15	8	17	22	**52**	**10**	**91**	**13**
4am - 5am	8	4	4	11	11	13	14	**38**	**8**	**65**	**9**
5am - 6am	29	23	24	17	21	12	14	**114**	**23**	**140**	**20**
6am - 7am	91	80	67	73	81	30	15	**392**	**78**	**437**	**62**
7am - 8am	122	146	118	114	106	50	40	**606**	**121**	**696**	**99**
8am - 9am	**165**	175	**193**	**154**	**168**	58	35	**855**	**171**	**948**	**135**
9am - 10am	146	**197**	167	144	142	85	47	**796**	**159**	**928**	**133**
10am - 11am	116	121	134	108	120	**93**	57	**599**	**120**	**749**	**107**
11am - Midday	116	112	97	103	122	84	**75**	**550**	**110**	**709**	**101**
Midday - 1pm	104	101	101	122	111	100	**85**	**539**	**108**	**724**	**103**
1pm - 2pm	114	122	128	124	132	**108**	71	**620**	**124**	**799**	**114**
2pm - 3pm	125	119	124	132	161	99	78	**661**	**132**	**838**	**120**
3pm - 4pm	156	140	151	152	168	62	59	**767**	**153**	**888**	**127**
4pm - 5pm	203	200	203	210	175	76	78	**991**	**198**	**1145**	**164**
5pm - 6pm	**243**	**252**	259	**253**	**218**	77	78	**1225**	**245**	**1380**	**197**
6pm - 7pm	181	179	**273**	159	210	74	59	**1002**	**200**	**1135**	**162**
7pm - 8pm	62	71	82	98	81	73	70	**394**	**79**	**537**	**77**
8pm - 9pm	52	50	67	76	71	26	59	**316**	**63**	**401**	**57**
9pm - 10pm	45	58	37	50	54	44	53	**244**	**49**	**341**	**49**
10pm - 11pm	31	47	35	40	45	55	28	**198**	**40**	**281**	**40**
11pm - Midnight	27	34	42	57	41	52	33	**201**	**40**	**286**	**41**
Total	**2179**	**2275**	**2364**	**2269**	**2296**	**1364**	**1158**	**11383**	**2276**	**13905**	**1986**

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Traffic Count Summary Report

Count Number 969 Ref : **GTA** Directory Ref : **UBD 256 A-2**

Street **MYRTLE STREET, CHIPPENDALE : From ABERCROMBIE STREET to BUCKLAND STREET : WEST BOUND**

Location Between Wiley Street and Smithers Street, House No. , ELP *Carriageway*

TOTAL COUNT MATRIX

Start Date	05-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	27
Weekly 85th Percentile Speed	37
Five Day AADT	656
Seven Day AADT	585

	MON 5TH	TUE 6TH	WED 7TH	THU 8TH	FRI 9TH	SAT 10TH	SUN 11TH	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	5	8	11	11	7	10	11	**42**	**8**	**63**	**9**
1am - 2am	2	2	0	3	3	13	11	**10**	**2**	**34**	**5**
2am - 3am	2	2	4	3	4	9	8	**15**	**3**	**32**	**5**
3am - 4am	3	1	1	3	2	5	7	**10**	**2**	**22**	**3**
4am - 5am	3	4	1	1	2	5	7	**11**	**2**	**23**	**3**
5am - 6am	2	5	5	11	8	5	1	**31**	**6**	**37**	**5**
6am - 7am	9	12	13	13	13	6	3	**60**	**12**	**69**	**10**
7am - 8am	31	43	30	35	30	14	6	**169**	**34**	**189**	**27**
8am - 9am	**56**	44	51	51	**70**	13	10	**272**	**54**	**295**	**42**
9am - 10am	46	**60**	**60**	**60**	49	22	20	**275**	**55**	**317**	**45**
10am - 11am	38	58	39	46	23	28	**22**	**204**	**41**	**254**	**36**
11am - Midday	33	42	36	48	45	**35**	20	**204**	**41**	**259**	**37**
Midday - 1pm	28	49	42	42	34	26	18	**195**	**39**	**239**	**34**
1pm - 2pm	36	51	36	41	27	**42**	25	**191**	**38**	**258**	**37**
2pm - 3pm	29	31	45	39	36	30	14	**180**	**36**	**224**	**32**
3pm - 4pm	48	38	49	54	50	23	20	**239**	**48**	**282**	**40**
4pm - 5pm	47	43	51	50	42	27	21	**233**	**47**	**281**	**40**
5pm - 6pm	47	41	**58**	**65**	**57**	36	**30**	**268**	**54**	**334**	**48**
6pm - 7pm	**49**	**54**	39	37	45	26	25	**224**	**45**	**275**	**39**
7pm - 8pm	22	21	38	35	29	16	15	**145**	**29**	**176**	**25**
8pm - 9pm	17	17	16	27	30	13	17	**107**	**21**	**137**	**20**
9pm - 10pm	14	17	16	17	24	20	13	**88**	**18**	**121**	**17**
10pm - 11pm	13	10	17	13	19	18	13	**72**	**14**	**103**	**15**
11pm - Midnight	7	4	9	8	7	21	17	**35**	**7**	**73**	**10**
Total	**587**	**657**	**667**	**713**	**656**	**463**	**354**	**3280**	**656**	**4097**	**585**

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Traffic Count Summary Report

Count Number	**969**	Ref : **GTA**	Directory Ref : **UBD 256 A-2**
Street	**MYRTLE STREET, CHIPPENDALE : From BUCKLAND STREET to ABERCROMBIE STREET : EAST BOUND**		
Location	Between Wiley Street and Smithers Street, House No. , ELP		*Carriageway*

TOTAL COUNT MATRIX

Start Date	05-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	26
Weekly 85th Percentile Speed	35
Five Day AADT	568
Seven Day AADT	490

	MON *5TH*	TUE *6TH*	WED *7TH*	THU *8TH*	FRI *9TH*	SAT *10TH*	SUN *11TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	3	3	3	10	6	16	10	**25**	**5**	**51**	**7**
1am - 2am	4	1	2	7	4	15	6	**18**	**4**	**39**	**6**
2am - 3am	3	3	0	1	5	6	10	**12**	**2**	**28**	**4**
3am - 4am	2	1	1	4	2	7	1	**10**	**2**	**18**	**3**
4am - 5am	1	1	0	1	0	5	2	**3**	**1**	**10**	**1**
5am - 6am	5	3	3	4	4	5	1	**19**	**4**	**25**	**4**
6am - 7am	9	9	14	13	19	3	1	**64**	**13**	**68**	**10**
7am - 8am	42	23	36	51	33	8	6	**185**	**37**	**199**	**28**
8am - 9am	**55**	51	**57**	**58**	**68**	7	11	**289**	**58**	**307**	**44**
9am - 10am	39	**55**	56	43	41	18	**13**	**234**	**47**	**265**	**38**
10am - 11am	32	54	35	46	47	21	**13**	**214**	**43**	**248**	**35**
11am - Midday	27	36	29	44	25	**23**	**13**	**161**	**32**	**197**	**28**
Midday - 1pm	27	40	32	33	39	21	17	**171**	**34**	**209**	**30**
1pm - 2pm	19	29	24	31	33	17	17	**136**	**27**	**170**	**24**
2pm - 3pm	26	38	33	32	38	21	10	**167**	**33**	**198**	**28**
3pm - 4pm	32	41	46	46	35	**25**	15	**200**	**40**	**240**	**34**
4pm - 5pm	**52**	42	**53**	42	**41**	**25**	**19**	**230**	**46**	**274**	**39**
5pm - 6pm	48	**45**	33	**53**	38	20	16	**217**	**43**	**253**	**36**
6pm - 7pm	26	34	38	43	39	19	10	**180**	**36**	**209**	**30**
7pm - 8pm	19	14	20	16	22	11	6	**91**	**18**	**108**	**15**
8pm - 9pm	13	12	14	23	15	9	16	**77**	**15**	**102**	**15**
9pm - 10pm	11	17	12	8	11	13	6	**59**	**12**	**78**	**11**
10pm - 11pm	5	4	7	9	18	12	17	**43**	**9**	**72**	**10**
11pm - Midnight	5	5	9	9	9	17	11	**37**	**7**	**65**	**9**
Total	**505**	**561**	**557**	**627**	**592**	**344**	**247**	**2842**	**568**	**3433**	**490**

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Traffic Count Summary Report

Count Number	**958**	Ref : **GTA**	Directory Ref : **UBD 255 Q-2**
Street	**MYRTLE STREET, CHIPPENDALE : From CITY ROAD to PINE STREET : EAST BOUND**		
Location	Between Rose Street and Shepherd Street, House No.35		*Carriageway*

TOTAL COUNT MATRIX

Start Date	05-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	26
Weekly 85th Percentile Speed	35
Five Day AADT	435
Seven Day AADT	383

	MON *5TH*	TUE *6TH*	WED *7TH*	THU *8TH*	FRI *9TH*	SAT *10TH*	SUN *11TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	0	1	1	4	4	7	5	**10**	**2**	**22**	**3**
1am - 2am	1	1	1	1	1	3	1	**5**	**1**	**9**	**1**
2am - 3am	1	1	2	3	1	0	2	**8**	**2**	**10**	**1**
3am - 4am	2	0	1	0	0	3	4	**3**	**1**	**10**	**1**
4am - 5am	0	1	0	1	0	4	2	**2**	**0**	**8**	**1**
5am - 6am	0	1	2	1	3	1	1	**7**	**1**	**9**	**1**
6am - 7am	7	4	11	8	7	4	2	**37**	**7**	**43**	**6**
7am - 8am	25	13	17	24	28	7	1	**107**	**21**	**115**	**16**
8am - 9am	**28**	**47**	**41**	**34**	**36**	12	5	**186**	**37**	**203**	**29**
9am - 10am	20	33	33	**34**	33	14	11	**153**	**31**	**178**	**25**
10am - 11am	12	26	17	17	21	**21**	12	**93**	**19**	**126**	**18**
11am - Midday	20	11	21	25	10	14	**15**	**87**	**17**	**116**	**17**
Midday - 1pm	27	24	19	16	21	19	10	**107**	**21**	**136**	**19**
1pm - 2pm	17	25	20	26	23	22	**19**	**111**	**22**	**152**	**22**
2pm - 3pm	16	24	21	18	19	**26**	14	**98**	**20**	**138**	**20**
3pm - 4pm	36	43	43	33	26	14	**19**	**181**	**36**	**214**	**31**
4pm - 5pm	38	45	43	38	43	22	18	**207**	**41**	**247**	**35**
5pm - 6pm	**49**	**46**	48	**58**	**50**	24	13	**251**	**50**	**288**	**41**
6pm - 7pm	35	40	**52**	50	39	20	15	**216**	**43**	**251**	**36**
7pm - 8pm	12	17	25	26	15	16	**19**	**95**	**19**	**130**	**19**
8pm - 9pm	18	11	23	11	17	10	15	**80**	**16**	**105**	**15**
9pm - 10pm	5	14	18	20	13	5	6	**70**	**14**	**81**	**12**
10pm - 11pm	5	7	6	9	12	9	10	**39**	**8**	**58**	**8**
11pm - Midnight	3	3	5	5	6	5	5	**22**	**4**	**32**	**5**
Total	**377**	**438**	**470**	**462**	**428**	**282**	**224**	**2175**	**435**	**2681**	**383**

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Traffic Count Summary Report

Count Number	**958**	Ref : **GTA**	Directory Ref : **UBD 255 Q-2**
Street	**MYRTLE STREET, CHIPPENDALE : From PINE STREET to CITY ROAD : WEST BOUND**		
Location	Between Rose Street and Shepherd Street, House No.35		*Carriageway*

TOTAL COUNT MATRIX

Start Date	05-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	27
Weekly 85th Percentile Speed	36
Five Day AADT	747
Seven Day AADT	684

	MON *5TH*	TUE *6TH*	WED *7TH*	THU *8TH*	FRI *9TH*	SAT *10TH*	SUN *11TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	4	1	4	4	4	13	14	**17**	**3**	**44**	**6**
1am - 2am	1	2	5	2	3	1	12	**13**	**3**	**26**	**4**
2am - 3am	0	2	1	1	2	6	7	**6**	**1**	**19**	**3**
3am - 4am	1	2	1	3	0	2	4	**7**	**1**	**13**	**2**
4am - 5am	4	1	3	4	4	0	4	**16**	**3**	**20**	**3**
5am - 6am	5	9	6	7	8	2	5	**35**	**7**	**42**	**6**
6am - 7am	13	8	22	20	16	8	3	**79**	**16**	**90**	**13**
7am - 8am	39	31	43	35	43	14	7	**191**	**38**	**212**	**30**
8am - 9am	**70**	**82**	**84**	**66**	**71**	21	13	**373**	**75**	**407**	**58**
9am - 10am	41	53	62	62	55	34	24	**273**	**55**	**331**	**47**
10am - 11am	24	57	49	59	51	**37**	31	**240**	**48**	**308**	**44**
11am - Midday	30	35	51	50	46	33	**34**	**212**	**42**	**279**	**40**
Midday - 1pm	37	47	40	36	43	48	29	**203**	**41**	**280**	**40**
1pm - 2pm	44	39	36	56	42	**49**	**43**	**217**	**43**	**309**	**44**
2pm - 3pm	44	42	36	36	51	38	36	**209**	**42**	**283**	**40**
3pm - 4pm	47	64	59	38	35	37	33	**243**	**49**	**313**	**45**
4pm - 5pm	53	**66**	57	63	58	36	38	**297**	**59**	**371**	**53**
5pm - 6pm	**56**	49	33	**67**	**60**	38	37	**265**	**53**	**340**	**49**
6pm - 7pm	47	55	**66**	49	47	39	35	**264**	**53**	**338**	**48**
7pm - 8pm	35	37	34	42	39	28	26	**187**	**37**	**241**	**34**
8pm - 9pm	18	18	30	25	30	25	23	**121**	**24**	**169**	**24**
9pm - 10pm	19	27	36	28	21	22	16	**131**	**26**	**169**	**24**
10pm - 11pm	12	15	17	18	20	14	13	**82**	**16**	**109**	**16**
11pm - Midnight	13	6	9	9	18	17	3	**55**	**11**	**75**	**11**
Total	**657**	**748**	**784**	**780**	**767**	**562**	**490**	**3736**	**747**	**4788**	**684**

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Traffic Count Summary Report

Count Number	**961**	Ref : **GTA**	Directory Ref : **UBD 255 Q-1**
Street	**O'CONNOR STREET, CHIPPENDALE : From BALFOUR STREET to BUCKLAND STREET : WEST BOUND**		
Location	Between Buckland Street and Smithers Street, House No.17,		*Carriageway*

TOTAL COUNT MATRIX

Start Date	05-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	28
Weekly 85th Percentile Speed	38
Five Day AADT	189
Seven Day AADT	165

	MON *5TH*	TUE *6TH*	WED *7TH*	THU *8TH*	FRI *9TH*	SAT *10TH*	SUN *11TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	1	1	1	3	0	3	3	**6**	**1**	**12**	**2**
1am - 2am	2	0	0	1	1	2	1	**4**	**1**	**7**	**1**
2am - 3am	1	1	1	1	0	0	1	**4**	**1**	**5**	**1**
3am - 4am	0	0	0	0	0	0	0	**0**	**0**	**0**	**0**
4am - 5am	0	0	1	0	0	0	1	**1**	**0**	**2**	**0**
5am - 6am	0	1	1	2	2	1	1	**6**	**1**	**8**	**1**
6am - 7am	2	3	2	5	8	1	0	**20**	**4**	**21**	**3**
7am - 8am	11	6	14	11	**18**	6	3	**60**	**12**	**69**	**10**
8am - 9am	**20**	20	**19**	15	17	3	4	**91**	**18**	**98**	**14**
9am - 10am	10	**22**	16	18	13	6	**9**	**79**	**16**	**94**	**13**
10am - 11am	8	15	11	**26**	10	10	4	**70**	**14**	**84**	**12**
11am - Midday	10	13	5	16	3	**12**	4	**47**	**9**	**63**	**9**
Midday - 1pm	4	11	7	5	15	6	6	**42**	**8**	**54**	**8**
1pm - 2pm	12	8	5	12	9	10	4	**46**	**9**	**60**	**9**
2pm - 3pm	6	9	7	13	5	5	**8**	**40**	**8**	**53**	**8**
3pm - 4pm	8	15	9	16	**17**	**11**	5	**65**	**13**	**81**	**12**
4pm - 5pm	**16**	13	19	**22**	16	8	3	**86**	**17**	**97**	**14**
5pm - 6pm	14	**21**	16	14	10	9	4	**75**	**15**	**88**	**13**
6pm - 7pm	13	16	**24**	21	16	10	5	**90**	**18**	**105**	**15**
7pm - 8pm	5	9	10	9	9	6	6	**42**	**8**	**54**	**8**
8pm - 9pm	5	7	3	5	3	4	4	**23**	**5**	**31**	**4**
9pm - 10pm	7	3	5	5	8	3	5	**28**	**6**	**36**	**5**
10pm - 11pm	3	2	0	2	2	4	3	**9**	**2**	**16**	**2**
11pm - Midnight	0	1	2	2	5	5	3	**10**	**2**	**18**	**3**
Total	**158**	**197**	**178**	**224**	**187**	**125**	**87**	**944**	**188**	**1156**	**165**

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Traffic Count Summary Report

Count Number	**961**	Ref : **GTA**	Directory Ref : **UBD 255 Q-1**
Street	**O'CONNOR STREET, CHIPPENDALE : From BUCKLAND STREET to BALFOUR STREET : EAST BOUND**		
Location	Between Buckland Street and Smithers Street, House No.17,		*Carriageway*

TOTAL COUNT MATRIX

Start Date	05-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	31
Weekly 85th Percentile Speed	39
Five Day AADT	323
Seven Day AADT	293

	MON *5TH*	TUE *6TH*	WED *7TH*	THU *8TH*	FRI *9TH*	SAT *10TH*	SUN *11TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	2	1	2	4	4	9	2	**13**	**3**	**24**	**3**
1am - 2am	2	0	2	2	1	3	7	**7**	**1**	**17**	**2**
2am - 3am	1	1	2	1	2	3	2	**7**	**1**	**12**	**2**
3am - 4am	0	0	1	1	1	3	3	**3**	**1**	**9**	**1**
4am - 5am	0	0	0	1	1	1	2	**2**	**0**	**5**	**1**
5am - 6am	2	2	3	1	4	1	2	**12**	**2**	**15**	**2**
6am - 7am	10	7	9	7	11	5	3	**44**	**9**	**52**	**7**
7am - 8am	33	35	**39**	32	35	7	2	**174**	**35**	**183**	**26**
8am - 9am	**37**	**44**	**39**	**43**	**45**	7	12	**208**	**42**	**227**	**32**
9am - 10am	26	30	32	33	24	15	**14**	**145**	**29**	**174**	**25**
10am - 11am	17	20	15	22	15	**21**	8	**89**	**18**	**118**	**17**
11am - Midday	13	12	14	22	14	18	13	**75**	**15**	**106**	**15**
Midday - 1pm	10	16	9	18	14	19	**18**	**67**	**13**	**104**	**15**
1pm - 2pm	16	15	16	18	13	17	17	**78**	**16**	**112**	**16**
2pm - 3pm	**26**	17	16	19	21	18	15	**99**	**20**	**132**	**19**
3pm - 4pm	15	14	13	19	20	12	11	**81**	**16**	**104**	**15**
4pm - 5pm	16	19	23	23	17	18	14	**98**	**20**	**130**	**19**
5pm - 6pm	23	17	**27**	18	15	**21**	12	**100**	**20**	**133**	**19**
6pm - 7pm	22	**26**	13	**28**	**23**	12	12	**112**	**22**	**136**	**19**
7pm - 8pm	8	11	12	14	13	17	5	**58**	**12**	**80**	**11**
8pm - 9pm	12	9	4	10	10	4	5	**45**	**9**	**54**	**8**
9pm - 10pm	10	10	11	4	5	2	7	**40**	**8**	**49**	**7**
10pm - 11pm	2	7	5	8	13	4	6	**35**	**7**	**45**	**6**
11pm - Midnight	3	5	1	3	10	6	3	**22**	**4**	**31**	**4**
Total	**306**	**318**	**308**	**351**	**331**	**243**	**195**	**1614**	**322**	**2052**	**293**

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Traffic Count Summary Report

Count Number	**966**	Ref : **GTA**	Directory Ref : **UBD 256 A-2**
Street	**QUEEN STREET, CHIPPENDALE : From BALFOUR STREET to REGENT STREET : EAST BOUND**		
Location	Between Balfour Street and Chippen Street, House No.12		*Carriageway*

TOTAL COUNT MATRIX

Start Date	14-FEB-07
Start Time	1300
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	27
Weekly 85th Percentile Speed	37
Five Day AADT	239
Seven Day AADT	195

	MON *19TH*	TUE *20TH*	WED *14TH / 21ST*	THU *15TH*	FRI *16TH*	SAT *17TH*	SUN *18TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	1	0	0	2	2	8	2	**5**	**1**	**15**	**2**
1am - 2am	1	0	0	2	1	2	3	**4**	**1**	**9**	**1**
2am - 3am	0	0	0	0	0	0	2	**0**	**0**	**2**	**0**
3am - 4am	0	0	0	1	0	1	1	**1**	**0**	**3**	**0**
4am - 5am	1	1	1	2	1	1	2	**6**	**1**	**9**	**1**
5am - 6am	2	4	1	1	0	1	1	**8**	**2**	**10**	**1**
6am - 7am	4	5	1	4	3	1	0	**17**	**3**	**18**	**3**
7am - 8am	12	6	7	8	7	1	1	**40**	**8**	**42**	**6**
8am - 9am	13	13	**33**	20	**23**	5	3	**102**	**20**	**110**	**16**
9am - 10am	**17**	**26**	25	12	18	6	2	**98**	**20**	**106**	**15**
10am - 11am	**17**	21	18	**22**	13	9	**7**	**91**	**18**	**107**	**15**
11am - Midday	13	10	32	15	22	**12**	0	**92**	**18**	**104**	**15**
Midday - 1pm	**23**	**22**	10	13	12	**12**	**11**	**80**	**16**	**103**	**15**
1pm - 2pm	20	16	12	12	**23**	8	2	**83**	**17**	**93**	**13**
2pm - 3pm	17	**22**	17	**19**	17	7	4	**92**	**18**	**103**	**15**
3pm - 4pm	21	16	21	17	16	**12**	0	**91**	**18**	**103**	**15**
4pm - 5pm	9	19	21	**19**	21	**12**	0	**89**	**18**	**101**	**14**
5pm - 6pm	18	21	**32**	18	15	6	0	**104**	**21**	**110**	**16**
6pm - 7pm	19	17	18	18	13	5	0	**85**	**17**	**90**	**13**
7pm - 8pm	5	9	10	8	2	2	0	**34**	**7**	**36**	**5**
8pm - 9pm	8	5	2	3	5	4	0	**23**	**5**	**27**	**4**
9pm - 10pm	3	5	6	1	6	4	0	**21**	**4**	**25**	**4**
10pm - 11pm	2	2	3	6	2	3	0	**15**	**3**	**18**	**3**
11pm - Midnight	2	1	6	3	1	7	4	**13**	**3**	**24**	**3**
Total	**228**	**241**	**276**	**226**	**223**	**129**	**45**	**1194**	**238**	**1368**	**195**

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Traffic Count Summary Report

Count Number	**966**	Ref : **GTA**	Directory Ref : **UBD 256 A-2**
Street	**QUEEN STREET, CHIPPENDALE : From REGENT STREET to BALFOUR STREET : WEST BOUND**		
Location	Between Balfour Street and Chippen Street, House No.12		*Carriageway*

TOTAL COUNT MATRIX

Start Date	14-FEB-07
Start Time	1300
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	29
Weekly 85th Percentile Speed	39
Five Day AADT	420
Seven Day AADT	344

	MON *19TH*	TUE *20TH*	WED *14TH / 21ST*	THU *15TH*	FRI *16TH*	SAT *17TH*	SUN *18TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	3	0	2	4	2	4	11	**11**	**2**	**26**	**4**
1am - 2am	2	0	3	6	3	2	0	**14**	**3**	**16**	**2**
2am - 3am	1	3	0	2	1	2	3	**7**	**1**	**12**	**2**
3am - 4am	2	0	0	6	0	3	2	**8**	**2**	**13**	**2**
4am - 5am	1	2	0	0	2	0	5	**5**	**1**	**10**	**1**
5am - 6am	5	4	5	4	1	2	5	**19**	**4**	**26**	**4**
6am - 7am	3	3	5	5	4	3	0	**20**	**4**	**23**	**3**
7am - 8am	26	14	18	19	12	4	0	**89**	**18**	**93**	**13**
8am - 9am	32	28	33	33	**32**	5	3	**158**	**32**	**166**	**24**
9am - 10am	**33**	37	**37**	27	22	18	8	**156**	**31**	**182**	**26**
10am - 11am	21	31	32	34	27	**22**	**13**	**145**	**29**	**180**	**26**
11am - Midday	30	**41**	34	**38**	27	14	7	**170**	**34**	**191**	**27**
Midday - 1pm	30	36	25	**36**	35	17	10	**162**	**32**	**189**	**27**
1pm - 2pm	26	33	28	18	21	13	**14**	**126**	**25**	**153**	**22**
2pm - 3pm	23	**42**	38	34	33	14	5	**170**	**34**	**189**	**27**
3pm - 4pm	**40**	22	31	31	20	**20**	0	**144**	**29**	**164**	**23**
4pm - 5pm	18	34	34	**36**	**41**	9	0	**163**	**33**	**172**	**25**
5pm - 6pm	37	24	34	30	24	14	0	**149**	**30**	**163**	**23**
6pm - 7pm	28	28	**43**	26	35	8	0	**160**	**32**	**168**	**24**
7pm - 8pm	10	12	19	7	16	6	0	**64**	**13**	**70**	**10**
8pm - 9pm	8	8	7	11	6	5	0	**40**	**8**	**45**	**6**
9pm - 10pm	8	9	7	5	6	8	0	**35**	**7**	**43**	**6**
10pm - 11pm	8	14	4	9	12	10	5	**47**	**9**	**62**	**9**
11pm - Midnight	3	12	5	9	8	11	1	**37**	**7**	**49**	**7**
Total	**398**	**437**	**444**	**430**	**390**	**214**	**92**	**2099**	**419**	**2405**	**343**

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Traffic Count Summary Report

Count Number	**959**	Ref : **GTA**	Directory Ref : **UBD 255 Q-1**
Street	**SHEPHERD STREET, CHIPPENDALE : From BROADWAY to CLEVELAND STREET : SOUTH BOUND**		
Location	Between Paints Lane and Daniels Street, House No.91		*Carriageway*

TOTAL COUNT MATRIX

Start Date	05-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	34
Weekly 85th Percentile Speed	42
Five Day AADT	814
Seven Day AADT	733

	MON *5TH*	TUE *6TH*	WED *7TH*	THU *8TH*	FRI *9TH*	SAT *10TH*	SUN *11TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	5	3	3	4	18	15	9	**33**	**7**	**57**	**8**
1am - 2am	4	4	2	5	7	7	13	**22**	**4**	**42**	**6**
2am - 3am	2	5	5	8	3	6	7	**23**	**5**	**36**	**5**
3am - 4am	3	2	3	0	1	8	9	**9**	**2**	**26**	**4**
4am - 5am	2	1	2	2	1	3	6	**8**	**2**	**17**	**2**
5am - 6am	6	4	4	13	2	4	4	**29**	**6**	**37**	**5**
6am - 7am	14	13	19	16	16	5	5	**78**	**16**	**88**	**13**
7am - 8am	42	26	41	45	44	7	9	**198**	**40**	**214**	**31**
8am - 9am	49	64	55	52	**62**	22	12	**282**	**56**	**316**	**45**
9am - 10am	**52**	**71**	**56**	**63**	42	22	17	**284**	**57**	**323**	**46**
10am - 11am	27	54	39	43	35	**45**	24	**198**	**40**	**267**	**38**
11am - Midday	41	33	47	47	41	33	**32**	**209**	**42**	**274**	**39**
Midday - 1pm	0	41	37	36	46	43	**39**	**160**	**32**	**242**	**35**
1pm - 2pm	0	47	42	49	51	**51**	34	**189**	**38**	**274**	**39**
2pm - 3pm	24	30	35	49	38	36	33	**176**	**35**	**245**	**35**
3pm - 4pm	50	54	54	56	47	28	30	**261**	**52**	**319**	**46**
4pm - 5pm	76	59	59	71	59	38	31	**324**	**65**	**393**	**56**
5pm - 6pm	**88**	74	71	**93**	87	42	32	**413**	**83**	**487**	**70**
6pm - 7pm	76	**85**	**82**	90	**105**	39	26	**438**	**88**	**503**	**72**
7pm - 8pm	39	45	54	57	48	36	35	**243**	**49**	**314**	**45**
8pm - 9pm	38	20	44	38	31	21	22	**171**	**34**	**214**	**31**
9pm - 10pm	18	38	22	36	30	18	24	**144**	**29**	**186**	**27**
10pm - 11pm	18	20	25	28	25	18	28	**116**	**23**	**162**	**23**
11pm - Midnight	10	9	10	12	20	19	13	**61**	**12**	**93**	**13**
Total	**684**	**802**	**811**	**913**	**859**	**566**	**494**	**4069**	**813**	**5129**	**732**

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Traffic Count Summary Report

Count Number	**959**	Ref : **GTA**	Directory Ref : **UBD 255 Q-1**
Street	**SHEPHERD STREET, CHIPPENDALE : From CLEVELAND STREET to BROADWAY : NORTH BOUND**		
Location	Between Paints Lane and Daniels Street, House No.91		*Carriageway*

TOTAL COUNT MATRIX

Start Date	05-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	32
Weekly 85th Percentile Speed	40
Five Day AADT	717
Seven Day AADT	641

	MON *5TH*	TUE *6TH*	WED *7TH*	THU *8TH*	FRI *9TH*	SAT *10TH*	SUN *11TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	5	0	4	3	6	8	7	**18**	**4**	**33**	**5**
1am - 2am	4	2	3	0	1	2	5	**10**	**2**	**17**	**2**
2am - 3am	1	1	4	2	3	4	5	**11**	**2**	**20**	**3**
3am - 4am	0	1	2	2	0	1	2	**5**	**1**	**8**	**1**
4am - 5am	2	3	5	5	4	1	2	**19**	**4**	**22**	**3**
5am - 6am	8	12	9	16	10	2	2	**55**	**11**	**59**	**8**
6am - 7am	21	20	27	23	27	12	0	**118**	**24**	**130**	**19**
7am - 8am	53	48	69	64	56	18	11	**290**	**58**	**319**	**46**
8am - 9am	**78**	**93**	**95**	**82**	**91**	23	13	**439**	**88**	**475**	**68**
9am - 10am	42	64	61	59	39	33	21	**265**	**53**	**319**	**46**
10am - 11am	25	39	36	52	35	**53**	30	**187**	**37**	**270**	**39**
11am - Midday	31	25	46	44	30	50	**41**	**176**	**35**	**267**	**38**
Midday - 1pm	1	39	30	32	35	37	31	**137**	**27**	**205**	**29**
1pm - 2pm	0	35	22	43	31	**38**	**36**	**131**	**26**	**205**	**29**
2pm - 3pm	6	38	37	28	39	23	32	**148**	**30**	**203**	**29**
3pm - 4pm	38	43	51	36	40	34	26	**208**	**42**	**268**	**38**
4pm - 5pm	59	57	51	55	48	**38**	26	**270**	**54**	**334**	**48**
5pm - 6pm	**60**	56	58	**64**	**59**	28	27	**297**	**59**	**352**	**50**
6pm - 7pm	58	**62**	**60**	61	56	27	27	**297**	**59**	**351**	**50**
7pm - 8pm	29	36	36	40	34	21	10	**175**	**35**	**206**	**29**
8pm - 9pm	20	21	26	26	28	17	13	**121**	**24**	**151**	**22**
9pm - 10pm	16	23	18	17	21	16	14	**95**	**19**	**125**	**18**
10pm - 11pm	10	13	11	15	17	11	10	**66**	**13**	**87**	**12**
11pm - Midnight	8	5	9	10	14	8	7	**46**	**9**	**61**	**9**
Total	**575**	**736**	**770**	**779**	**724**	**505**	**398**	**3584**	**716**	**4487**	**641**

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Traffic Count Summary Report

Count Number	**967**	Ref : **GTA**	Directory Ref : **UBD 256 B-1**
Street	**WELLINGTON STREET, CHIPPENDALE : From BALFOUR STREET to REGENT STREET : WEST BOUND**		
Location	Between Balfour Street and Regent Street, House No.9		*Carriageway*

TOTAL COUNT MATRIX

Start Date	14-FEB-07
Start Time	1000
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	24
Weekly 85th Percentile Speed	32
Five Day AADT	76
Seven Day AADT	67

	MON *19TH*	TUE *20TH*	WED *14TH*	THU *15TH*	FRI *16TH*	SAT *17TH*	SUN *18TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	0	1		0	0	1	1	**1**	**0**	**3**	**1**
1am - 2am	2	0		1	1	0	1	**4**	**1**	**5**	**1**
2am - 3am	0	0		0	0	0	1	**0**	**0**	**1**	**0**
3am - 4am	0	1		0	0	0	1	**1**	**0**	**2**	**0**
4am - 5am	0	0		0	0	0	0	**0**	**0**	**0**	**0**
5am - 6am	1	1		2	1	0	0	**5**	**1**	**5**	**1**
6am - 7am	1	3		2	0	1	0	**6**	**1**	**7**	**1**
7am - 8am	4	4		4	4	0	1	**16**	**3**	**17**	**3**
8am - 9am	**10**	**5**		8	6	3	1	**29**	**6**	**33**	**6**
9am - 10am	9		0	5	5	**6**	1	**19**	**4**	**26**	**4**
10am - 11am	3		5	**10**	4	4	**3**	**22**	**4**	**29**	**5**
11am - Midday	6		**6**	**10**	**12**	3	1	**34**	**7**	**38**	**6**
Midday - 1pm	**9**		6	5	2	2	1	**22**	**4**	**25**	**4**
1pm - 2pm	6		7	**11**	7	6	3	**31**	**6**	**40**	**7**
2pm - 3pm	7		2	8	**11**	4	3	**28**	**6**	**35**	**6**
3pm - 4pm	6		6	8	9	5	3	**29**	**6**	**37**	**6**
4pm - 5pm	2		8	7	8	2	**6**	**25**	**5**	**33**	**6**
5pm - 6pm	6		6	9	**11**	2	3	**32**	**6**	**37**	**6**
6pm - 7pm	**9**		**11**	3	6	**8**	2	**29**	**6**	**39**	**7**
7pm - 8pm	4		8	1	2	2	0	**15**	**3**	**17**	**3**
8pm - 9pm	4		3	1	3	3	2	**11**	**2**	**16**	**3**
9pm - 10pm	1		3	4	5	0	1	**13**	**3**	**14**	**2**
10pm - 11pm	2		0	3	1	0	2	**6**	**1**	**8**	**1**
11pm - Midnight	0		1	1	0	0	1	**2**	**0**	**3**	**1**
Total	**92**	**15**	**72**	**103**	**98**	**52**	**38**	**380**	**76**	**470**	**67**

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Traffic Count Summary Report

Count Number	**964**	Ref : **GTA**	Directory Ref : **UBD 255 Q-2**
Street	**WILEY STREET, CHIPPENDALE : From CLEVELAND STREET to MYRTLE STREET : NORTH BOUND**		
Location	Between Dangar Place and Myrtle Street, House No. , ELP		*Carriageway*

TOTAL COUNT MATRIX

Start Date	05-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	23
Weekly 85th Percentile Speed	32
Five Day AADT	292
Seven Day AADT	250

	MON *5TH*	TUE *6TH*	WED *7TH*	THU *8TH*	FRI *9TH*	SAT *10TH*	SUN *11TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	2	0	0	2	3	4	6	**7**	**1**	**17**	**2**
1am - 2am	1	0	1	1	1	3	1	**4**	**1**	**8**	**1**
2am - 3am	0	0	1	0	0	1	4	**1**	**0**	**6**	**1**
3am - 4am	1	0	1	2	1	0	2	**5**	**1**	**7**	**1**
4am - 5am	0	0	0	1	1	1	0	**2**	**0**	**3**	**0**
5am - 6am	3	3	2	6	2	5	1	**16**	**3**	**22**	**3**
6am - 7am	12	6	13	15	13	1	3	**59**	**12**	**63**	**9**
7am - 8am	26	20	27	**32**	25	6	2	**130**	**26**	**138**	**20**
8am - 9am	25	**29**	**31**	30	**37**	5	8	**152**	**30**	**165**	**24**
9am - 10am	**28**	24	30	30	26	8	7	**138**	**28**	**153**	**22**
10am - 11am	11	18	9	15	18	**10**	**13**	**71**	**14**	**94**	**13**
11am - Midday	4	9	7	14	14	**10**	6	**48**	**10**	**64**	**9**
Midday - 1pm	3	4	16	11	11	13	**16**	**45**	**9**	**74**	**11**
1pm - 2pm	8	6	9	12	9	4	7	**44**	**9**	**55**	**8**
2pm - 3pm	9	13	17	13	17	13	5	**69**	**14**	**87**	**12**
3pm - 4pm	24	25	26	22	26	11	10	**123**	**25**	**144**	**21**
4pm - 5pm	19	26	27	29	25	12	8	**126**	**25**	**146**	**21**
5pm - 6pm	21	17	26	29	**29**	3	11	**122**	**24**	**136**	**19**
6pm - 7pm	**39**	**37**	**36**	**32**	27	**16**	8	**171**	**34**	**195**	**28**
7pm - 8pm	6	10	2	13	8	7	1	**39**	**8**	**47**	**7**
8pm - 9pm	6	3	6	7	6	5	5	**28**	**6**	**38**	**5**
9pm - 10pm	8	5	8	4	6	13	4	**31**	**6**	**48**	**7**
10pm - 11pm	2	1	3	5	3	7	0	**14**	**3**	**21**	**3**
11pm - Midnight	5	0	5	0	6	4	1	**16**	**3**	**21**	**3**
Total	**263**	**256**	**303**	**325**	**314**	**162**	**129**	**1461**	**292**	**1752**	**250**

 CFE Information Technologies

Data displayed has been compiled from pneumatic traffic count processes and is subject to the documented limitations

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Traffic Count Summary Report

Count Number	**964**	Ref : **GTA**	Directory Ref : **UBD 255 Q-2**
Street	**WILEY STREET, CHIPPENDALE : From MYRTLE STREET to CLEVELAND STREET : SOUTH BOUND**		
Location	Between Dangar Place and Myrtle Street, House No. , ELP		*Carriageway*

TOTAL COUNT MATRIX

Start Date	05-FEB-07
Start Time	100
Duration	7 DAYS
Interval	1 HOUR

Weekly 50th Percentile Speed	25
Weekly 85th Percentile Speed	35
Five Day AADT	709
Seven Day AADT	644

	MON *5TH*	TUE *6TH*	WED *7TH*	THU *8TH*	FRI *9TH*	SAT *10TH*	SUN *11TH*	5 Dav Total	5 Dav Average	7 Dav Total	7 Dav Average
Midnight - 1am	6	7	11	9	17	20	16	**50**	**10**	**86**	**12**
1am - 2am	6	5	3	4	7	12	15	**25**	**5**	**52**	**7**
2am - 3am	2	3	4	5	5	14	18	**19**	**4**	**51**	**7**
3am - 4am	4	1	1	2	3	9	5	**11**	**2**	**25**	**4**
4am - 5am	0	4	2	2	5	6	4	**13**	**3**	**23**	**3**
5am - 6am	5	8	3	12	8	4	5	**36**	**7**	**45**	**6**
6am - 7am	13	10	14	20	20	7	4	**77**	**15**	**88**	**13**
7am - 8am	35	27	**44**	40	34	19	10	**180**	**36**	**209**	**30**
8am - 9am	**51**	49	43	50	**59**	16	12	**252**	**50**	**280**	**40**
9am - 10am	44	49	**44**	55	48	24	25	**240**	**48**	**289**	**41**
10am - 11am	44	52	41	35	36	26	**30**	**208**	**42**	**264**	**38**
11am - Midday	24	**55**	42	**56**	27	**30**	29	**204**	**41**	**263**	**38**
Midday - 1pm	40	48	38	42	33	33	**35**	**201**	**40**	**269**	**38**
1pm - 2pm	42	41	33	37	41	26	31	**194**	**39**	**251**	**36**
2pm - 3pm	29	31	44	43	51	33	29	**198**	**40**	**260**	**37**
3pm - 4pm	55	52	43	48	45	24	27	**243**	**49**	**294**	**42**
4pm - 5pm	48	42	43	55	52	33	22	**240**	**48**	**295**	**42**
5pm - 6pm	61	41	57	**56**	**65**	31	**35**	**280**	**56**	**346**	**49**
6pm - 7pm	**68**	**73**	**63**	51	55	34	28	**310**	**62**	**372**	**53**
7pm - 8pm	33	33	30	39	41	**35**	26	**176**	**35**	**237**	**34**
8pm - 9pm	24	32	27	26	28	17	15	**137**	**27**	**169**	**24**
9pm - 10pm	22	11	20	24	27	17	15	**104**	**21**	**136**	**19**
10pm - 11pm	11	18	14	24	14	19	5	**81**	**16**	**105**	**15**
11pm - Midnight	10	12	15	16	15	19	12	**68**	**14**	**99**	**14**
Total	**677**	**704**	**679**	**751**	**736**	**508**	**453**	**3547**	**709**	**4508**	**644**

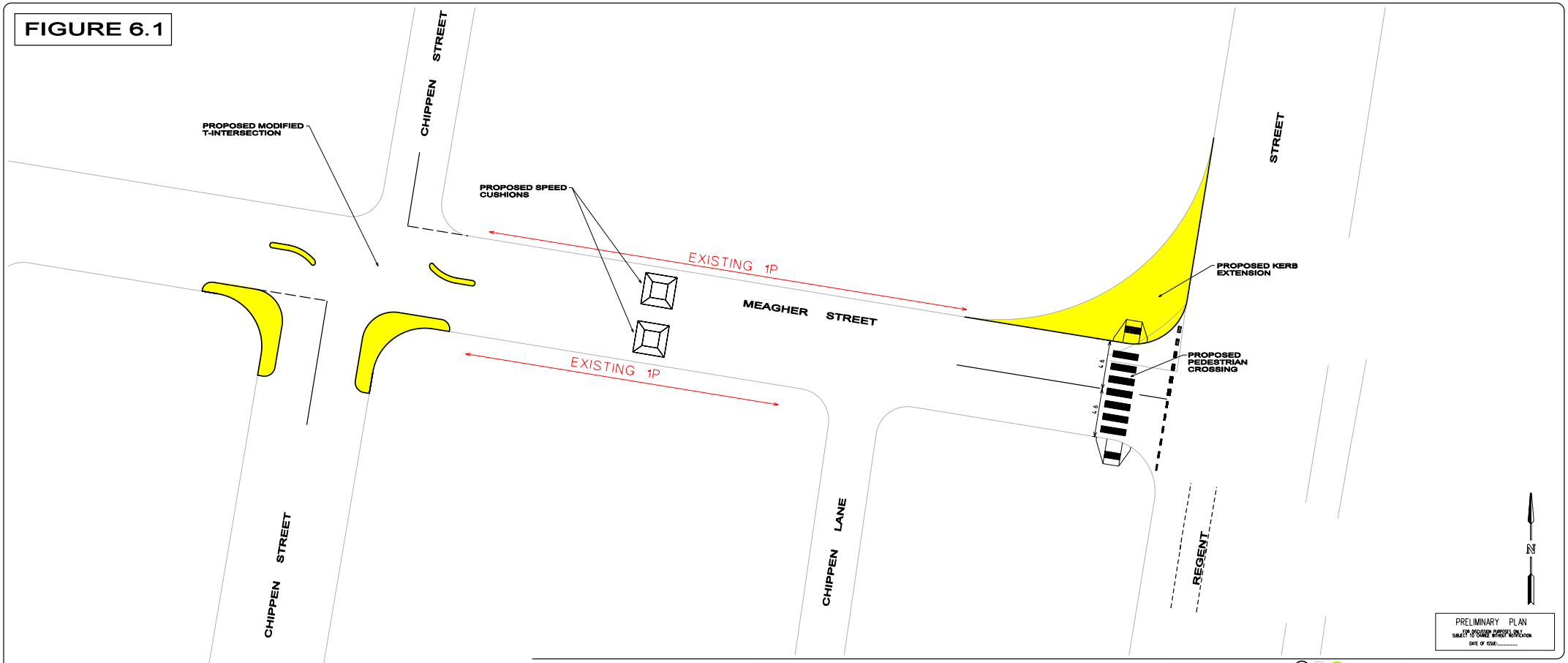
 CFE Information Technologies

Data displayed has been compiled from pneumatic traffic count processes and is subject to the documented limitations

Appendix C

Figures 6.1-6.5 – LATM Concept Proposals

FIGURE 6.1



PRELIMINARY PLAN
FOR DISCUSSION PURPOSES ONLY
SUBJECT TO CHANGE WITHOUT NOTIFICATION
DATE OF ISSUE:.....

AMENDMENTS

ISSUE	DATE	DESCRIPTION	INIT.

GENERAL NOTES

1. ALL DIMENSIONS AND RADII ARE IN METRES AND ARE TO THE FACE OF KERB AND CHANNEL.
2. GTA CONSULTANTS DOES NOT TAKE ANY RESPONSIBILITY FOR THE ACCURACY OF THE EXISTING CONDITIONS BASE ON WHICH THE SETOUT DETAIL IS BASED. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE EXISTING CONDITIONS INCLUDING UNDERGROUND SERVICES SHOULD BE VERIFIED ON SITE.

DESIGNER	K.WILLIAMS
DRAWN	A.YIANNOUDES
DATE	31 JAN 2008
CHECKED	A.STEWART
CAD FILE No.	FS10640-MOD4a

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SCALE Hor. 0 2.5 5 Ver. 1:250 @ A3

CLIENT CITY OF SYDNEY

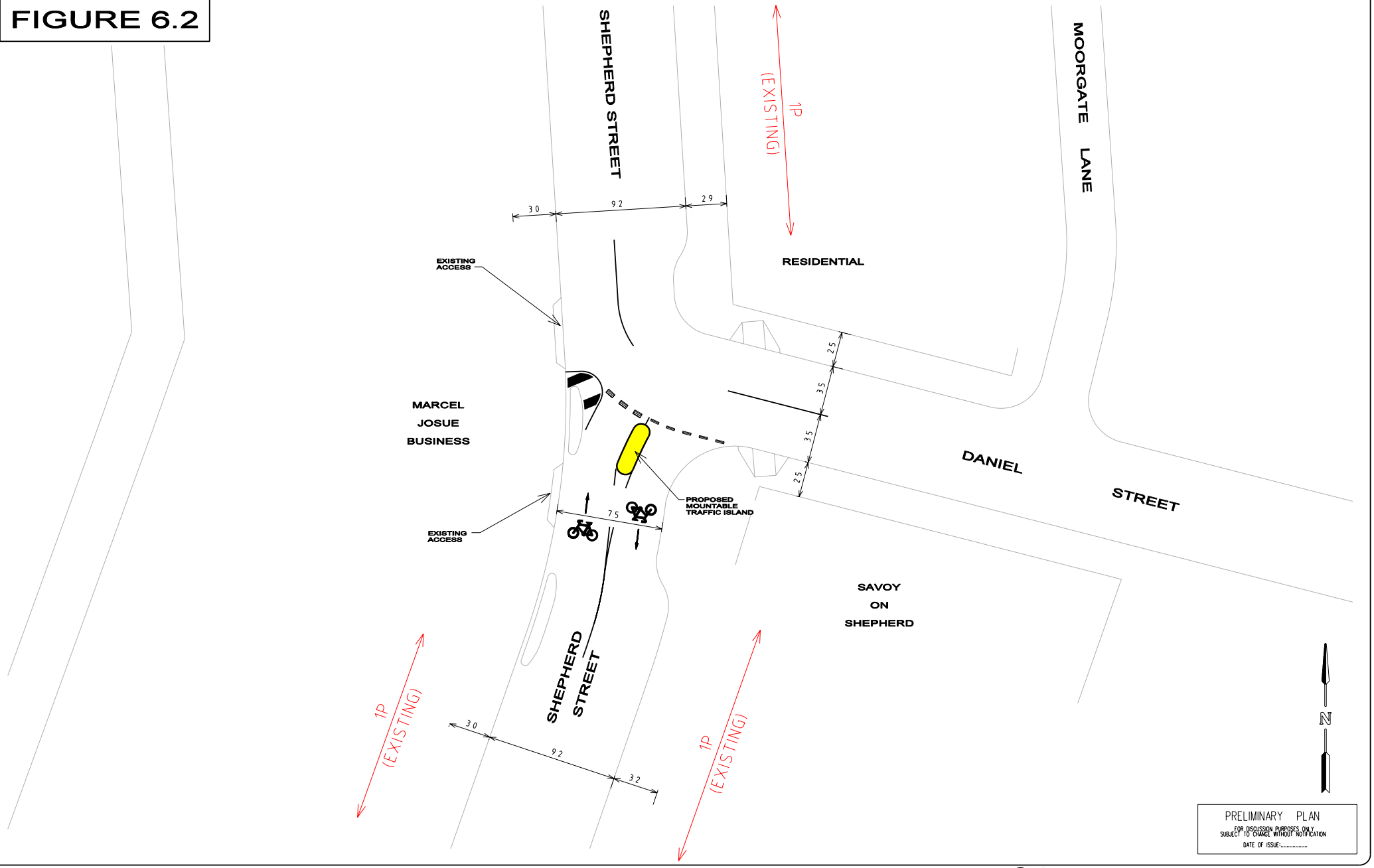
CHIPPENDALE LATM STUDY

MEAGHER ST / REGENT ST / CHIPPEN STREET, CHIPPENDALE

CONCEPTUAL LAYOUT

MELWAY REF.	SHEET	DRAWING NO.	ISSUE
	1 of 1	FS10640-FIG 6.1	P1

FIGURE 6.2



PRELIMINARY PLAN
FOR DISCUSSION PURPOSES ONLY
SUBJECT TO CHANGE WITHOUT NOTIFICATION
DATE OF ISSUE:.....

AMENDMENTS

ISSUE	DATE	DESCRIPTION	P.M.

GENERAL NOTES

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SCALE Hor. 0 2.5 5
Ver. 1:250 @ A3

CLIENT CITY OF SYDNEY

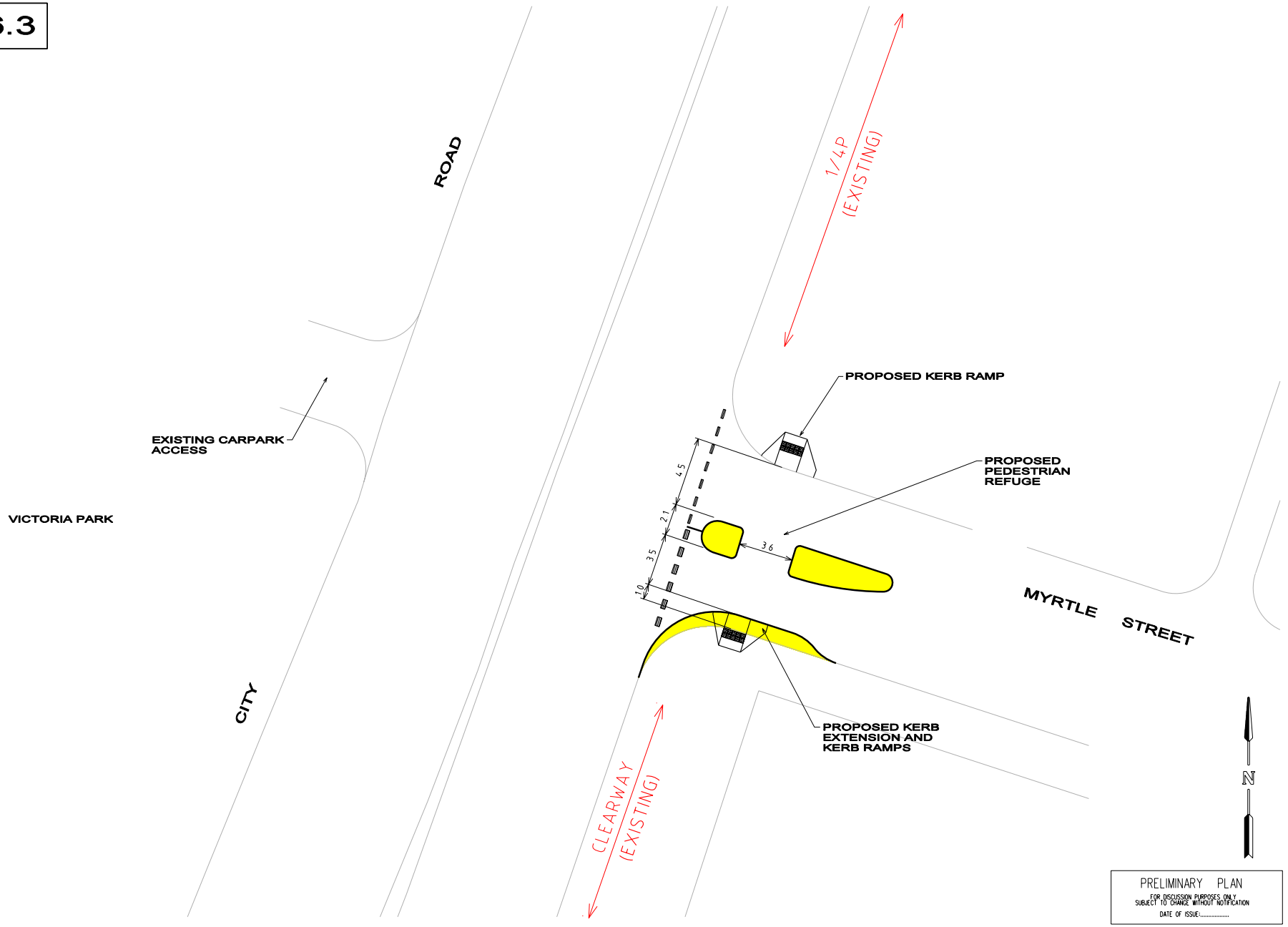
CHIPPENDALE LATM STUDY

SHEPHERD STREET / DANIEL STREET, CHIPPENDALE

CONCEPTUAL LAYOUT

SHEET 1 of 1 DRAWING NO. FS10640-FIG 6.2 ISSUE P1

FIGURE 6.3



PRELIMINARY PLAN
FOR DISCUSSION PURPOSES ONLY
SUBJECT TO CHANGE WITHOUT NOTIFICATION
DATE OF ISSUE:.....

AMENDMENTS

ISSUE	DATE	DESCRIPTION	P.M.

GENERAL NOTES

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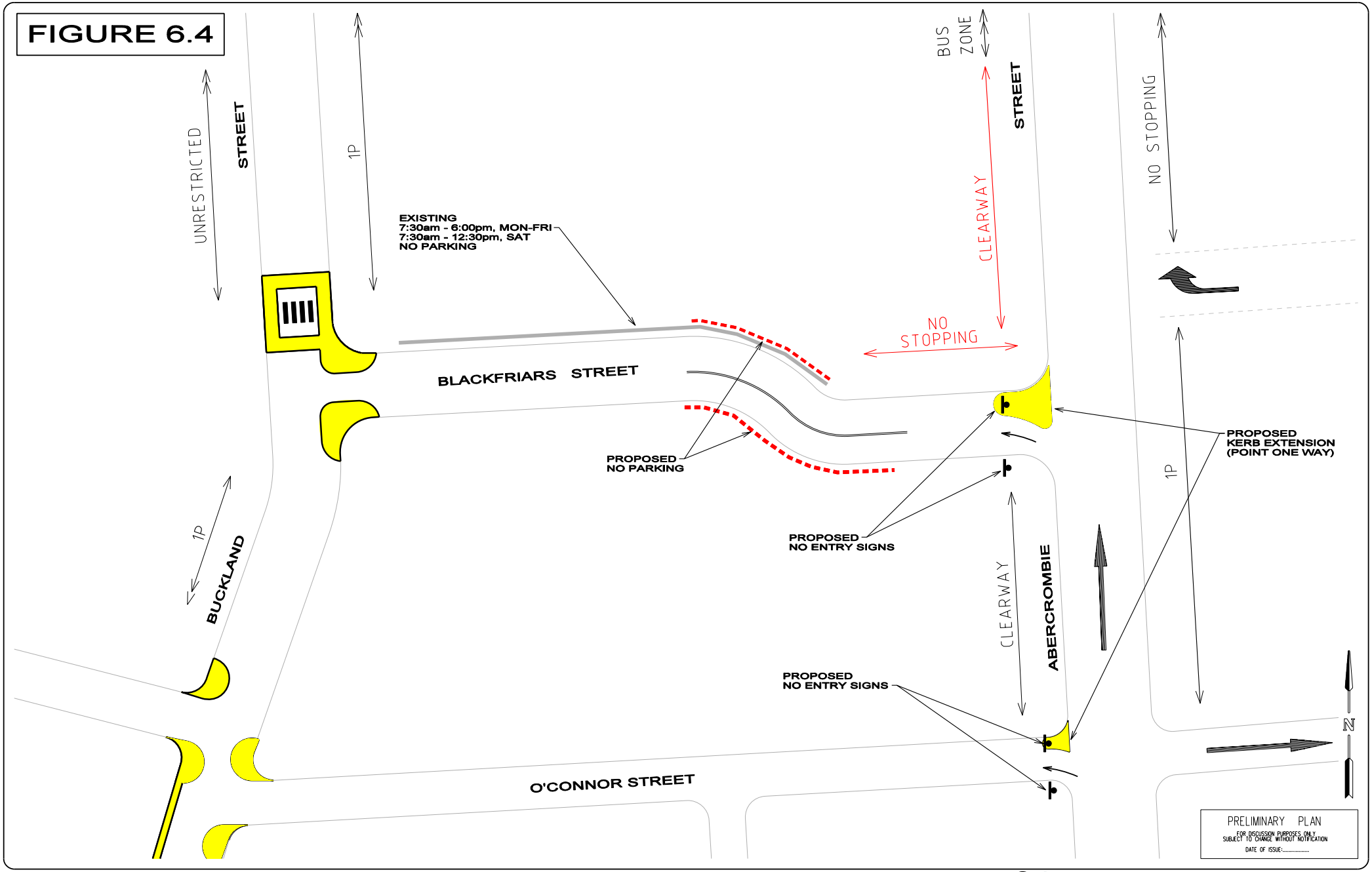
CLIENT CITY OF SYDNEY
CHIPPENDALE LATM STUDY
CITY ROAD / MYRTLE STREET, CHIPPENDALE
CONCEPTUAL LAYOUT

MELWAY REF.	SHEET	DRAWING NO.	ISSUE
	1 of 1	FS10640-FIG 6.3	P1

FIGURE 6.4



AMENDMENTS

ISSUE	DATE	DESCRIPTION	P.M.

GENERAL NOTES

1. ALL DIMENSIONS AND RADII ARE IN METRES AND ARE TO THE FACE OF KERB AND CHANNEL.
2. GTA CONSULTANTS DOES NOT TAKE ANY RESPONSIBILITY FOR THE ACCURACY OF THE EXISTING CONDITIONS BASE ON WHICH THE SETOUT DETAIL IS BASED. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE EXISTING CONDITIONS INCLUDING UNDERGROUND SERVICES SHOULD BE VERIFIED ON SITE.

DESIGNER D.A
DRAWN A.Y.
DATE 31 JAN 2008
CHECKED A.STEWART

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CLIENT CITY OF SYDNEY

CHIPPENDALE LATM STUDY

BUCKLAND ST / BLACKFRIARS ST / O'CONNOR ST / ABERCROMBIE ST, CHIPPENDALE

CONCEPTUAL LAYOUT

MELWAY REF. | SHEET 1 of 1 | DRAWING NO. FS10640-FIG 6.4 | ISSUE P1

FIGURE 6.5

AMENDMENTS

ISSUE	DATE	DESCRIPTION	P.M.

GENERAL NOTES

1. ALL DIMENSIONS AND RADII ARE IN METRES AND ARE TO THE FACE OF KERB AND CHANNEL.
2. GTA CONSULTANTS DOES NOT TAKE ANY RESPONSIBILITY FOR THE ACCURACY OF THE EXISTING CONDITIONS BASE ON WHICH THE SETOUT DETAIL IS BASED. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE EXISTING CONDITIONS INCLUDING UNDERGROUND SERVICES SHOULD BE VERIFIED ON SITE.

DESIGNER D.A
DRAWN A.YIANNOUDES
DATE 31 JAN 2008
CHECKED A.STEWART
CAD FILE No. FS10640-MOD4d

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www.gta.com.au

SCALE Hor. 0 5 10 Ver. 1:500 @ A3

CLIENT CITY OF SYDNEY
CHIPPENDALE LATM STUDY
WILEY STREET, CHIPPENDALE
CONCEPTUAL LAYOUT

MELWAY REF. | SHEET 1 of 1 | DRAWING NO. FS10640-FIG 6.5 | ISSUE P1

Appendix D

LATM Warrant Assessment Site Locations & Associated Pedestrian and Traffic Volumes

Figure 6.6: RTA Warrants Assessment Sites

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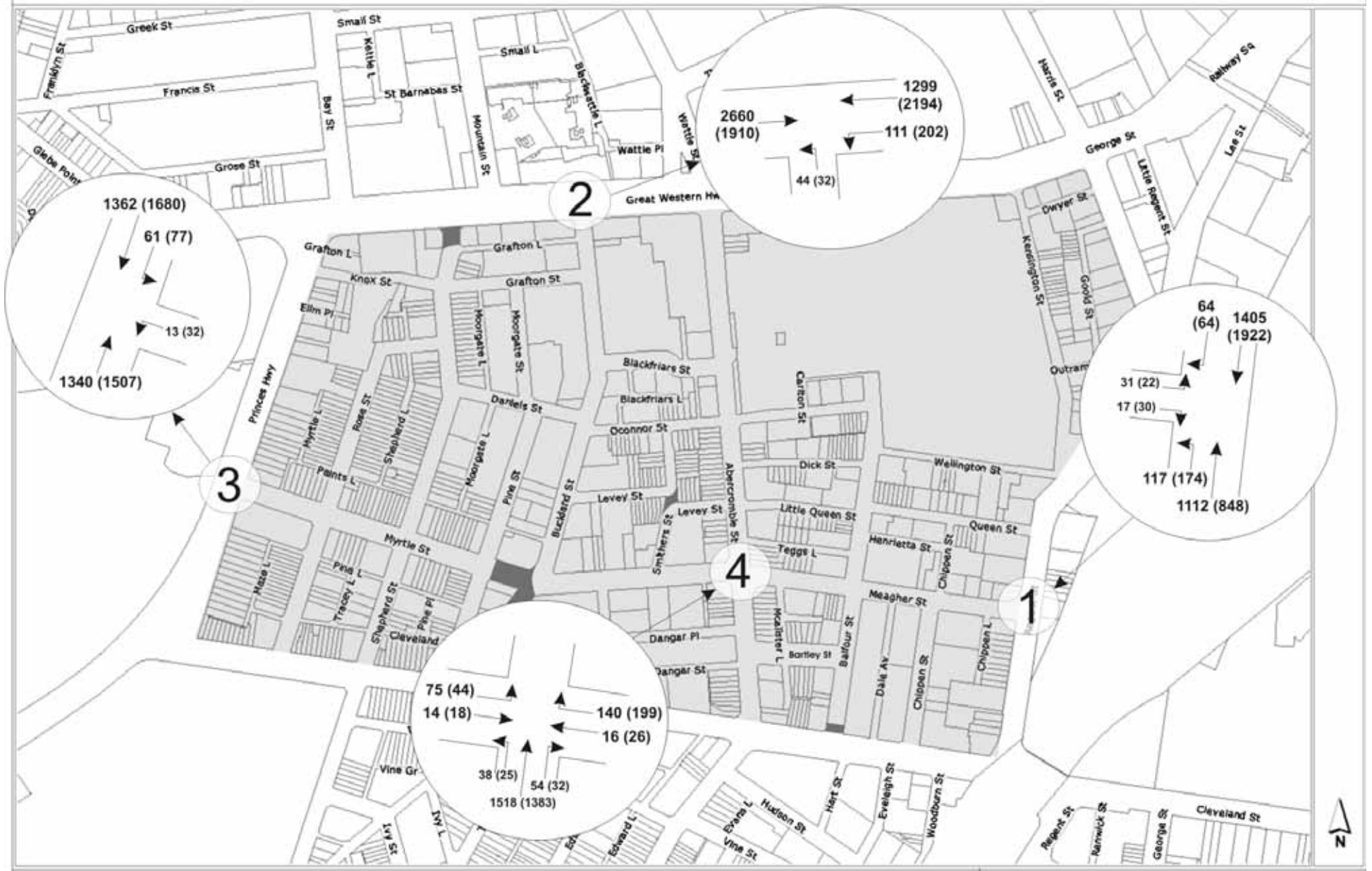


75 (44) = AM (PM) Peak Traffic Volumes

Client: City of Sydney
CHIPPENDALE LATM TRAFFIC STUDY

Figure 6.6: RTA Warrants Assessment Sites

Figure 6.7: Pedestrian Counts

GTAconsultants

75 (44) = AM (PM) Peak Hour Pedestrian Counts

Client: City of Sydney
CHIPPENDALE LATM TRAFFIC STUDY

Figure 6.7: Pedestrian Counts

Appendix E

RTA Pedestrian Crossing & Traffic Signal Warrants Criteria

4.17 PEDESTRIANS

1 INTRODUCTION

This section deals with the facilities available to assist and protect pedestrians crossing roads and gives warrants for their use. The facilities described include the following:-

- Warning Signs
- Regulatory Devices
  - Marked footcrossings
  - Children's crossings
  - Traffic Signal Controlled Pedestrian Crossings
- Separating Devices
  - Pedestrian Refuge Islands
  - Pedestrian Grade Separation

2 WARNING SIGNS

2.1 General

These devices include the signs W6-1 Pedestrians and W6-3 Children. The warning sign W6-2 Pedestrian Crossing ahead is dealt with below in section 3.

The signs are used to warn motorists of the likely presence of pedestrians on the road; they are used where marked pedestrian crossings or signals are not provided and where significant, but not expected, pedestrian movements occur. They are also used in the approaches to pedestrian refuge islands (see 6 below).

2.2 Typical Situations

Typical situations for the application of the signs include:-

- adjacent to a railway station or other pedestrian generator in a small village
- on a section of road without formed footpaths near a town or recreation area
- in the vicinity of a school or playground if there is no single crossing point warranting a marked footcrossing or children's crossing.

2.3 Supplementary Messages

Where appropriate the sign W6-1 Pedestrians may be supplemented by one of the following plates:-

W8-18 AGED
W8-19 BLIND
W8-20 DISABLED

and the sign W6-3 Children may be supplemented by one of the following plates:-

W8-10 BLIND CHILDREN
W8-11 CRIPPLED CHILDREN
W8-12 SPASTIC CHILDREN
W8-13 PLAYGROUND
W8-14 SCHOOL

2.4 Size of Signs

The size of the sign(s) used should be chosen having regard to traffic volume, vehicle approach speed, road conditions and background. Where conditions require greater visual impact, where there are two or more lanes for the direction of travel or where the sign is erected 6 metres or more from the pavement edge the size of sign should be increased.

3 MARKED FOOT CROSSINGS (see also page 4.17-10)

3.1 General

Marked footcrossings comprise zebra markings across the full road width together with R3-1 Pedestrian crossing signs on both sides of the carriageway facing approaching traffic. They are regulatory devices under the Motor Traffic and General Traffic Acts and must be properly authorised (see Section 3). Marked footcrossings impose an obligation on drivers to give way to pedestrians on the crossing.

3.2 Site Considerations

Marked footcrossings must not be provided where:-

(i) the 85th percentile speed (V85) of traffic exceeds 75 km/h

OR

(ii) the sight distance to the pavement at the crossing is less than the figures in Table 1

V85 (km/h)	Sight Distance (m)
40	80
50	120
60	160
70	200

TABLE 1

OR

(iii) both ends of the crossing are not visible from half the appropriate sight distance shown in Table 1

OR

(iv) more than four lanes of moving traffic have to be crossed by pedestrians in one stage

In the event of a site being considered unsuitable for one or more of the above reasons, alternatives may be considered as follows:-

Problem	Alternative
High speed	Signal controlled crossing, pedestrian refuge island or pedestrian grade separation
Limited sight distance	Relocation of crossing, pedestrian refuge island or pedestrian grade separation
More than four lanes of traffic	Provision of a median island desirably at least 2 metres wide, signal controlled crossing or pedestrian grade separation

TABLE 2

Sites at schools on local and lightly trafficked roads should be considered for Children's crossings if the school is the dominant pedestrian generator (See 4 below).

3.3 Warrant (also see page 4.17-9)

A marked footcrossing is warranted where:-

In each of three separate one hour periods in a typical day

(i) the pedestrian flow/hour (P) crossing the road is greater than or equal to 30

AND

(ii) the vehicular flow/hour (V) through the site is greater than or equal to 500

AND

(iii) the product PV is greater than or equal to 60,000

In special circumstances, at the discretion of the Divisional Engineer, the minimum PV value may be relaxed to not less than 45,000.

3.3.1 Reduced Warrant for sites used predominantly by children or by aged pedestrians.

If the crossing is used predominantly by school children, is not a suitable site for a Children's Crossing (See Section 4), and in two counts each of one hour duration immediately before and after school hours:-

(i) $P \geq 30$

AND

(ii) $V \geq 200$

a marked footcrossing may be installed.

If at least 50% of pedestrians using the crossing are aged or have a mobility difficulty and for each of three one hour periods in a typical day

(i) $P \geq 30$

AND

(ii) $V \geq 200$

AND

(iii) $PV \geq 60,000$

a marked footcrossing may be installed.

3.4 Signs and Markings

The signs and pavement markings required at a marked footcrossing are shown on page 4.17-10.

3.5 Advance Warning of Marked Footcrossings

The sign W6-2 Pedestrian Crossing Ahead is used in advance of marked footcrossings where the visibility of the R3-1 Pedestrian crossing sign is obstructed due to vertical or horizontal road curvature or other local conditions.

3.5 Supplementary Devices for Marked Footcrossings

3.5.1 Overhead flashing symbol signs

At several crossings with nighttime pedestrian activity flashing symbol signs have been provided. Details are shown on Page 4.17-11. However, it is now considered that the preferable method of dealing with the nighttime movement of pedestrians is the use of floodlighting or traffic signal controlled pedestrian crossings. No further overhead flashing symbol sign installations will be made. However, the existing installations will continue to be maintained.

3.6.2 Floodlighting

Floodlighting of pedestrian crossings to improve the visibility of pedestrians using the crossing at night is strongly supported.

The floodlighting of pedestrian crossings is the responsibility of the local Council and is carried out by the local electricity supply authority. Subject to the work being in accordance with SAA Standard AS 1158 Part 5 (1974), the work may be eligible for subsidy from the Traffic Route Lighting Subsidy Fund which is administered by the Energy Authority of NSW.

If a crossing is on a main or secondary road, or other arterial or sub-arterial road, there is a need for adequate traffic route lighting throughout. The floodlighting of crossings alone is not an adequate substitute.

There is reason to believe that a floodlit pedestrian crossing on an otherwise poorly lit street could be a source of danger in the not uncommon event that a pedestrian crosses the road in the vicinity of, rather than on, the crossing. In this situation floodlighting could mask the driver's view of a pedestrian. To overcome this situation at least three spans of traffic route lighting should be installed so that the floodlit crossing is located centrally within a well lit section.

Illumination of a crossing from directly overhead is not effective. Lighting should be provided such that the side of a pedestrian which faces oncoming traffic is strongly illuminated.

There is little to be gained from the use of a contrasting lamp colour for pedestrian crossing floodlighting having regard to the range of normal streetlighting lamps currently employed.

3.6.3 Civilian Crossing Supervisors

Civilian crossing attendants appointed by the Police Department supervise a number of selected marked footcrossings near schools during the periods before and after school hours. Where requested by the Police the attendants are provided with hand held Stop Sign R3-202A.

4 CHILDREN'S CROSSINGS (See also page 4.17-12)

4.1 General

Children's Crossings (or footcrossings) are part-time devices which operate only during the periods before and after school hours and at other times that may be considered necessary such as before and after school excursions. They are intended for use at or near primary and infants schools where a pedestrian facility is needed to assist children crossing the road.

Children's crossings are regulatory devices under the Motor Traffic and General Traffic Acts and should be properly authorised (see Section 3).

The crossings have legal significance only when Signs R3-3 Children Crossing are displayed. When in operation they place an obligation on drivers to stop at the stop line for a pedestrian on the crossing and to proceed only after the crossing is clear.

4.2 Site considerations

A children's Crossing may be installed if:-

(i) the crossing is located on a local or lightly trafficked road

AND

(ii) in each of the one hour periods before and after school hours the vehicular flow/hour (V) is greater than 50.

AND

(iii) the crossing would be used predominantly by children during daylight hours

AND

(iv) an undertaking can be obtained from the School Principal to arrange the display of the R3-3 Children Crossing flags during and only during the specified hours of operation.

A Children's Crossing must not be installed if:-

(i) *the 85th percentile speed (V85) of traffic exceeds 60 kph*

OR

(ii) there is insufficient visibility of the crossing or pedestrians using the crossing for approaching drivers.

4.3 Signs and Markings

The signs and pavement markings required at a Children's Crossing are shown on page 4.17-12. Where possible crossings should be located adjacent to the school gates and away from intersections.

4.4 Advance Warning of Children's Crossings

The sign W6-3 Children and supplementary plate W8-22 Crossing Ahead are used in advance of all Children's Crossings.

4.5 Other Requirements

Where a school is located on an unkerbed road without constructed footpaths the installation of a Children's Crossing is subject to the construction of adequate footpaths and kerb and gutter at least for the length of road associated with the crossing or other pedestrian protection subject to the approval of the Divisional Engineer.

5 TRAFFIC SIGNAL CONTROLLED PEDESTRIAN CROSSINGS (also see page 4.17-13)

5.1 Warrant for Mid-block Crossings

Traffic Signal Control of mid-block footcrossings is warranted if:-

(a) for each of four one hour periods of a typical day:

(i) the pedestrian flow/hour (P) exceeds 250

AND

(ii) the total vehicular flow/hour (V) in both directions exceeds 600, or where there is a central pedestrian refuge, 1000

OR

(b) for each of eight one hour periods of a typical day:

(i) the pedestrian flow/hour (P) exceeds 175

AND

(ii) the total vehicular flow/hour (V) in both directions exceeds 600, or where there is a central pedestrian refuge, 1000

AND

(iii) there is no other pedestrian crossing facility within a reasonable distance.

5.1.1 Special situations

Traffic signal control of mid-block footcrossings may also be provided in the following situations:-

(i) If the volume warrant for a marked unsignalled pedestrian crossing is realised but the provision of an unsignalled crossing could cause hazard to pedestrians because of the width of carriageway or the speed or volume of vehicles

OR

(ii) Where there are large seasonal variations in traffic flow on roads leading to, say, holiday resorts, if it can be shown to meet the warrant during the busy season, even if during the rest of the year the warrant is not met

OR

(iii) If a pedestrian crossing has been the site of two or more preventable pedestrian casualty accidents within three years.

5.1.2 Reduced warrant for sites used predominantly by children or by aged pedestrians

A traffic signal controlled pedestrian crossing may be installed if:-

(i) the crossing is used predominantly by school children, and

(ii) in two counts each of one hour duration immediately before and after school hours $P \geq 50$ and $V \geq 600$

OR

(i) at least 50% of pedestrians using the crossing are aged or have a mobility difficulty, and

(ii) during three periods each of one hour in any one day $P \geq 50$ and $V \geq 600$

5.2 Signs and markings for mid-block crossings

The signs and pavement markings for mid-block traffic signal controlled pedestrian crossings are shown on page 4.17-13.

5.3 Warrant for Intersection Crossings

At intersections controlled by traffic signals a marked footcrossing is warranted for each pedestrian movement which exceeds 60 persons per hour for two separate hours.

OR

Where a warranted mid-block crossing cannot be installed because of sight distance restrictions, pedestrian facilities may be incorporated in the nearest adjacent intersection signals if these are within reasonable walking distance.

5.4 Other considerations

(i) The provision of a signal controlled mid-block crossing should be avoided within 130 m of a signal controlled intersection.

(ii) When any type of pedestrian crossing, signalled or unsignalled, is warranted within an urban traffic control system, a linked signal controlled pedestrian crossing should be installed.

(iii) When a signal controlled mid-block crossing is installed but is not linked to a co-ordinated system or to an adjacent intersection, consideration should be given to the installation of vehicle detectors and a vehicle actuated signal controller in order to minimise delay to traffic.

(iv) At a signal controlled crossing regularly used by a number of partially sighted or blind persons, consideration should be given to the use of audio tactile push-buttons.

6 PEDESTRIAN REFUGE ISLANDS

6.1 General

Pedestrian refuge islands may be installed on wide or heavily trafficked roads where there is a need to provide staged crossing for pedestrians. Their installation would generally be at sites where a pedestrian safety problem exists but a marked footcrossing would not be suitable because of excessive vehicle approach speed, limited driver sight distance or insufficient pedestrian or vehicle volume to warrant a marked footcrossing.

6.2 Application and Island Dimensions

Refuge islands are normally located centrally in the roadway or may be combined with channelising islands. They should only be provided where there is sufficient sealed pavement width to accommodate the island, generally 5.7 metres or greater on each side of the island for a four or more than four lane road.

If refuge islands are needed at a number of closely spaced locations along a road, consideration should be given to constructing a continuous median.

Refuge islands are constructed with barrier or semi barrier kerbing. The desirable minimum width for refuge islands is 2.0 metres and the minimum overall length should be 10 metres.

6.3 Signs and Markings

The signs and pavement markings required at a pedestrian refuge island are shown on page 4.17-14.

6.4 Advance warning of Pedestrian Refuge Islands

The Sign W6-1 Pedestrians or W6-3 Children and the supplementary plate W8-211 Refuge Island are used in advance of all pedestrian refuge islands.

6.5 Floodlighting

Floodlighting of pedestrian refuge islands to improve the visibility of pedestrians crossing at the refuge at night is strongly recommended.

For information on floodlighting refer to 3.6.2 above.

7 PEDESTRIAN GRADE SEPARATION

7.1 General

Warrants for the provision of grade separated pedestrian crossings (bridges or underpasses) are contained in the Traffic Authority's 1982 document "Guidelines for Evaluation of Grade Separated Pedestrian Facilities". As each installation has to be approved by the Traffic Authority and such facilities will cost significantly more than other pedestrian protection devices, each proposal should be the subject of a cost benefit study.

7.2 Criteria

Briefly stated, the Traffic Authority guidelines require a pedestrian grade separation proposal to meet the following criteria:-

(i) Numerical Criteria

The numbers of pedestrians and vehicles must meet the following numerical requirements for at least three hours of a normal weekday.

V is the volume of vehicular traffic (total two way) in vehicles/hr.

P is the volume of pedestrians traffic in pedestrians/hr

(a) Where the proportion of pedestrians under 12 years of age and over 60 years of age is 50% or less.

Undivided Road: $V > 850$; $P > 250$ and $PV > 250,000$

Divided Road: $V > 1500$: $P > 250$ and $PV > 400,000$

(b) Where the proportion of pedestrians under 12 years of age or over 60 years of age is greater than 50%.

Undivided Road: $V > 750$; $P > 200$ and $PV > 180,000$

Divided Road: $V > 1100$; $P > 200$ and $PV > 280,000$

(ii) Feasibility Criteria

The criteria to be evaluated include the following:

(a) Physical suitability of the site.
(b) Compliance with future road hierarchy arrangements.
(c) Consideration of all traffic management solutions.
(d) Likely utilisation of the facility.
(e) Engineering feasibility.
(f) Cost.

7.3 Cost Benefit Analysis

When a proposal has satisfied the above criteria, it may then be subjected to detailed evaluation. A cost benefit analysis of each proposed project should be undertaken along the lines given in the Department's publication, "Cost Benefit Analysis Technique and Case Study". Until a more refined procedure is developed, the ranking of pedestrian grade separated projects may be made according to the PV values (the product of pedestrian and vehicle numbers).

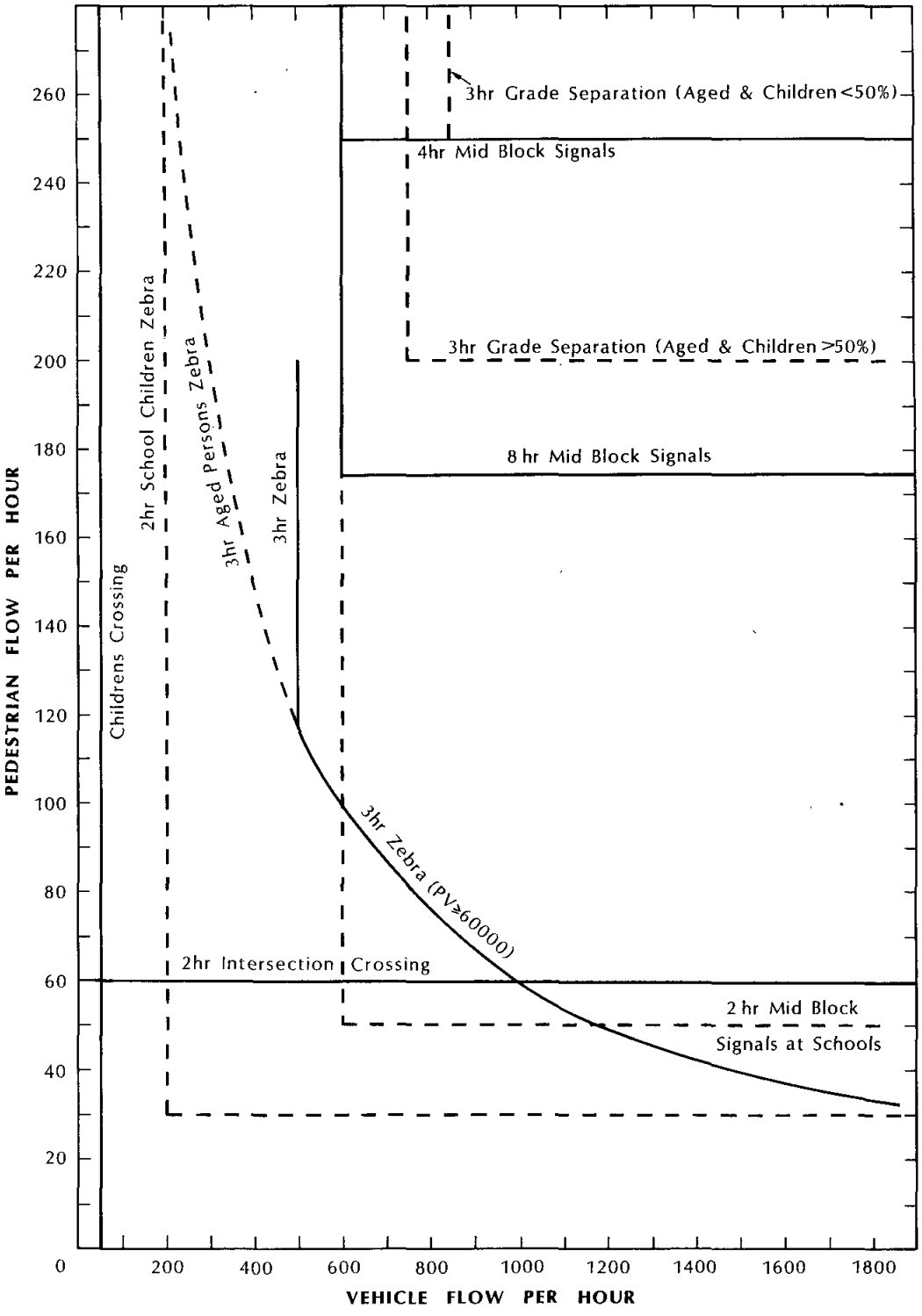
7.4 Signs

Signs for grade separated pedestrian crossings are shown on pages 4.17-15 and 4.17-16.

8 PROHIBITION OF PEDESTRIAN TRAFFIC

On freeways and other controlled access roads pedestrian traffic is not allowed. Signs to be erected at freeway ramps advising pedestrians of this prohibition are shown on Page 4.17-16.

9 SITUATION DIAGRAMS



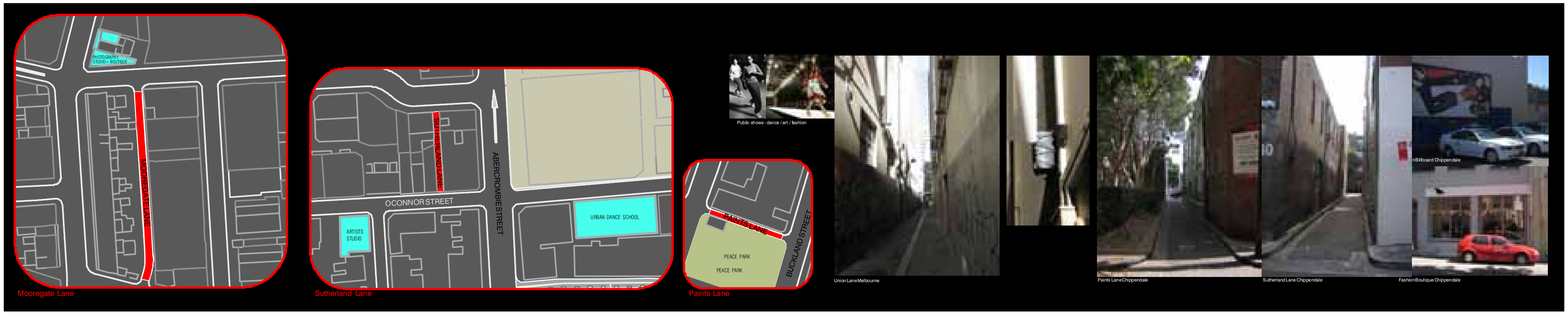
WARRANT GRAPH FOR PEDESTRIAN CROSSING

Appendix F

EDAW Urban Design Concept Plan


URBAN DANCE SCHOOL
ABERCROMBIE STREET
Drainage channel in centre of roadway
Planted medians
S1
BALFOUR STREET
MEAGHER STREET
Shared Zones - Dick, Little Queen & Teggs Lane
SHARED ZONES - pedestrian + vehicular
Pedestrian and vehicular pavement set flush.
Inverted carriageway dish drain along centre of road.
Minimal planting - Watergums - encourage local residents to adopt ownership of median planting beds.
planted median
dish drain
S1 - LITTLE QUEEN STREET ELEVATION 1:50
Community garden - Oconnor Street Chippendale
Open kerb to median garden beds
Road dish drain - Ultimo
BALFOUR STREET
PEACE PARK
BICYCLE POINT
BUCKLAND S
COMMUNITY CENTRE
BEAUMONT STREET
Potential street market locations
Balfour Street south - potential market site
Beaumont Street to Balfour Street - potential market site
Night market
Local market
Produce for sale
Temporary market stall
Permanent market stall


BALFOUR STREET
Balfour Street - Dale Avenue
- Chippen Street entry points
PHOTOGRAPHY STUDIO + BOUTIQUE
Shepherd Street
+ Broadway entry point
Meagher Street +
Regent Street entry point
"Edge of Trees" by Chippendale based artist Janette Laurence
Newtown Bollards by PSB
Art integrated with street furniture
Open kerb to median garden beds
CHIPPENDALE entry points
- enhance sense of place
- signify arrival into slow traffic/shared bicycle and motor vehicle roads
- traffic calming devices integrated with urban planting
- Urban artwork integrated with street furniture to establish local identity
- public garden beds managed by local community
Community adopted gardens
- ornamental planting in nature strip
- fruit tree planting in nature strip
- community garden on vacant corner
Tristaniopsis laurina - Chippendale
Melaleuca quinquenervia - Chippendale
Hardenbergia violaceae, Themeda triandra - initial median planting
Banksia spinulosa
Correa alba


PHOTOGRAPHY STUDIO + BOUTIQUE
MOOREGATE LANE
Mooregate Lane
SUTHERLAND LANE
OCONNOR STREET
ABERCROMBIE STREET
ARTISTS STUDIO
URBAN DANCE SCHOOL
Sutherland Lane
PAINTS LANE
PEACE PARK
BUCKLAND STREET
Paints Lane
Public shows - dance / art / fashion
Union Lane Melbourne
Paints Lane Chippendale
Sutherland Lane Chippendale
Billboard Chippendale
Fashion Boutique Chippendale

NOTES

1. Information relating to architectural, electrical, hydraulic, civil and other works as represented on EDAW documentation is for reference and EDAW co-ordination purpose only. All documentation to these and other works outside EDAW scope should be refered to the relevant consultants drawings and specification for details.
2. This drawing should be read in conjunction with EDAW prepared specification and details. Should a conflict exist advice and direction should be sought from EDAW prior undertaking any construction works.
3. All levels shown are in metres Australian Height Datum and dimensions in millimetres unless otherwise specified.

REFERENCES

CONSULTANT	DRAWING ID	DATE OF ISSUE
GTA	FS10640-01	01.02.07

DATE	REV	AMENDMENTS	APP
28.03.2007	A	Client Review	

Project: Chippendale LATM Study

Client: City of Sydney

Drawing: EDAW Concepts

EDAW Concepts

Chippendale LATM Study

City of Sydney

EDAW | AECOM

SYDNEY BRISBANE MELBOURNE SUNSHINE COAST ASIA EUROPE

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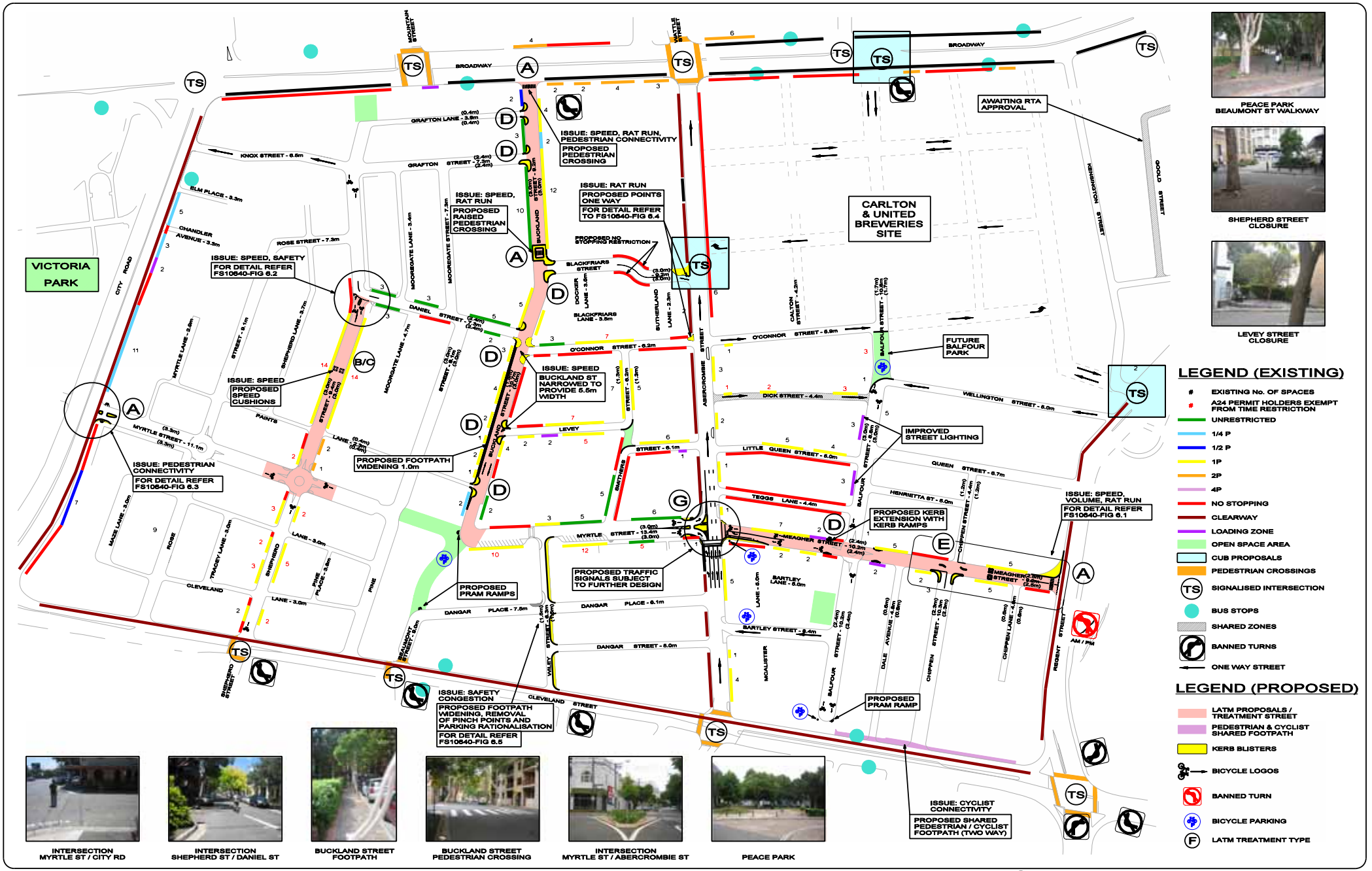
Scale: 1:1500 @ A1 or as shown
Project No.: 07502469.01
Drawn: MP
SK04B

Appendix G

appendix g

Overall LATM Proposal Community Workshop Plan



PEACE PARK
BEAUMONT ST WALKWAY

SHEPHERD STREET
CLOSURE

LEVEY STREET
CLOSURE

LEGEND (EXISTING)

- # EXISTING No. OF SPACES
- # A24 PERMIT HOLDERS EXEMPT FROM TIME RESTRICTION
- UNRESTRICTED
- 1/4 P
- 1/2 P
- 1P
- 2P
- 4P
- NO STOPPING
- CLEARWAY
- LOADING ZONE
- OPEN SPACE AREA
- CUB PROPOSALS
- PEDESTRIAN CROSSINGS
- TS SIGNALISED INTERSECTION
- BUS STOPS
- SHARED ZONES
- BANNED TURNS
- ONE WAY STREET

LEGEND (PROPOSED)

- LATM PROPOSALS / TREATMENT STREET
- PEDESTRIAN & CYCLIST SHARED FOOTPATH
- KERB BLISTERS
- BICYCLE LOGOS
- BANNED TURN
- BICYCLE PARKING
- F LATM TREATMENT TYPE

INTERSECTION
MYRTLE ST / CITY RD

INTERSECTION
SHEPHERD ST / DANIEL ST

BUCKLAND STREET
FOOTPATH

BUCKLAND STREET
PEDESTRIAN CROSSING

INTERSECTION
MYRTLE ST / ABERCROMBIE ST

PEACE PARK

AMENDMENTS

ISSUE	DATE	DESCRIPTION	P.M.
P5	31/01/08	DESIGN AMMENDMENTS (AY)	AS
P4	13/08/07	ISSUED FOR DETAILED DESIGN PLANNING (AMD)	AS
P3	02/05/07	LOCAL AREA TRAFFIC MANAGEMENT AMENDMENTS (DA)	AS
P2	23/04/07	LOCAL AREA TRAFFIC MANAGEMENT TREATMENTS ADDED TO PLAN (KW)	AS

GENERAL NOTES

PRELIMINARY PLAN
FOR DISCUSSION PURPOSES ONLY
SUBJECT TO CHANGE WITHOUT NOTIFICATION
DATE OF ISSUE:.....

DESIGNER K.WILLIAMS
DRAWN A.YIANNOUDES
DATE 30 APR '07
CHECKED A.STEWART
CAD FILE No. FS10640-MOD4d
SCALE Hor. 0 25 50 Ver. 1:1250 @ A1

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CLIENT CITY OF SYDNEY

CHIPPENDALE LATM STUDY

ISSUES & CONCEPT LATM PROPOSALS PLAN

MELWAY REF.	SHEET	DRAWING NO.	ISSUE
	1 of 1	FS10640-02	P5

Appendix H

Cost Rates & LATM Indicative Cost Estimates

CHIPPENDALE LATM STUDY - CONCEPT PROPOSALS SUMMARY - 2007
COST ESTIMATE TABLE

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Item No.	Street Name	Location	Proposed LATM Measures	Street Priority	Measure Priority	Cost Estimate [1]
1	Meagher Street	Intersection Regent Street/Meagher Street	1.1 Pedestrian Crossing (and Improved Lighting)		1	$52,000
		Intersection Regent Street/Meagher Street	1.2 AM & PM Peak, Left turn ban from Regent Street into Meagher Street		3	$450
		Meagher Street between Regent Street and Chippen Street	1.3 Speed Cushions		3	$7,500
		Intersection Chippen Street (North and South)/Meagher Street	1.4 Modified T-Intersection Treatment		3	$25,000
		Intersection Chippen Street /Meagher Street (South)	1.5 Kerb Blisters/Road Narrowing		3	$18,000
		Meagher Street East and West of Balfour Street	1.6 Kerb Blisters/Road Narrowing		4	$4,500
		Meagher Street West of Balfour Street	1.7 Kerb Extentiions with kerb ramps	**1**	4	$19,500
		Intersection Meagher Street/Abercrombie Street/Myrtle Street	1.8 Traffic Signals with controlled pedestrian crossings and priority bicycle facilities.		2	$250,000
		Meagher Street (south side) East of Abercrombie Street	1.9 Road Narrowing (approx 25m)		2	$56,250
					Sub total	**$433,200**
2	Buckland Street	Intersection Broadway/Buckland Street	2.1 Pedestrian Crossing (Improved Lighting)		1	$32,500
		Buckland Street Between Broadway and Myrtle Street	2.2 Kerb Blisters/Road Narrowing (Various x 7intersection, approx 34m)		4	$76,500
		Buckland Street north of Blackfriars Street	2.3 Raised Pedestrian (Existing Zebra Crossing)		2	$22,500
		Buckland Street between Daniel Street and Myrtle Street	2.4 Footpath widening (approx 125m)	**2**	3	$281,250
		Park at Myrtle Street and Beaumont Street	2.5 Kerb Ramps x 2		2	$1,000
					Sub total	**$413,750**
3	Shepherd Street	Intersection Daniel Street/Shepherd Street	3.1 Traffic Island/Linemarking	**3**	1	$19,500
		Shepherd Street Mid Block	3.2 Speed Cushions		2	$7,500
					Sub total	**$27,000**
4	City Road / Myrtle Street West	Intersection City Road/Myrtle Street	4.1 Pedestrian Refuge Island (and Improved Lighting)	**3**	2	$35,000
					Sub total	**$35,000**

[1] All cost estimates prepared by GTA Consultants are for broad level or initial feasibility planning only and must not be relied upon for quoting, budgeting or construction purposes. You should seek a detailed cost estimate from a suitably

Item No.	Street Name	Location	Proposed LATM Measures	Street Priority	Measure Priority	Cost Estimate [1]
5	Blackfriars Street & O'Connor Street	Intersection Abercrombie Street with Blackfriars Street	5.1 Left Out Only Restriction (Islands and 3 signs) x 2		2	$17,150
		Along the bend	5.2 Centre Line Marking along the bend		3	$240
		Along the bend	5.3 No Stopping Signs x 4		3	$900
		Intersection Abercrombie Street with Blackfriars Street	5.4Left Out Only Restriction (Islands and 3 signs) x 2		2	$17,150
					Sub total	**$35,440**
6	Willey Street	Between Myrtle Street and Dangar Place Eastern Side	6.1 Remove Kerb Extension		2	$12,000
		Between Myrtle Street and Cleveland Street	6.2 Install Kerb Extension		3	$236,250
		Between Myrtle Street and Cleveland Street Eastern Side	6.3 No Stopping Sign and Posts x 4		3	$900
					Sub total	**$249,150**
Other Treatments						
7	Bicycle Route	Myrtle Street/Shepherd Street Balfour Street	7.1 Bicycle Logos (x23) + Directional Signage (x42), Warning Signage (x8)		2	$15,850
	Balfour Street	Southern End	7.2 Kerb Ramp x 1		1	$500
	Cleveland Street	Northern foot path between Balfour Street and Regent Street	7.3 Shared Pedestrian/Bicycle Way (logos, signage and linemarking)		3	$4,400
		Various	7.4 Bicycle Parking (x5)	**3**	2	$5,000
	Little Queen Street	Between Abercrombie Street/Balfour Street	7.5 Shared Zone (approx 500m2)		3	$50,000
	Teggs Lane	Between Abercrombie Street/Balfour Street	7.6 Shared Zone (approx 450m2)		3	$45,000
	Balfour Street	Between Meagher Street and Wellington Street	7.7 Lighting Improvement		3	$50,000
					Sub total	**$170,750**
Other Treatments						
8	Balfour Street	Between Wellington Street & O'Connor Street	8.1 Road closure/future park	**N/A**	N/A	Funding Provided as part of Chippendale Improvement Plan Allocation - $500,000
					Total	$1,364,290
					Contingency (15%)	$204,644
					Overall Total	**$1,568,934**

[1] All cost estimates prepared by GTA Consultants are for broad level or initial feasibility planning only and must not be relied upon for quoting, budgeting or construction purposes. You should seek a detailed cost estimate from a suitably qualified civil engineer or quantity surveyor.

GTAconsultants

CHIPPENDALE LATM STUDY - CONCEPT PROPOSALS SUMMARY - 2007
ESTIMATED COST RATES

Item	ESTIMATED COST RATES [1]		
	Rate	Low	High
Road Hump	$5,500	$1,000	$10,000
Road Cushion	$7,500	$5,000	$10,000
Modified T	$25,000	$5,000	$45,000
Median ($/m)	$3,250	$500	$6,000
Pedestrian Crossing	$22,500	$5,000	$40,000
Threshhold	$23,750	$7,500	$40,000
Lane Narrowing/Kerb Extension ($/m)	$2,250	$500	$4,000
Shared Zone ($/m2)	$100	$100	$100
Signage	$225	$150	$300
Bicycle Logos	$200	$200	$200
Kerb Ramps	$500	$500	$500
Traffic Signals	$250,000	$250,000	$250,000
Bicycle Parking	$1,000	$1,000	$1,000
Excavation ($/m)	$500	$500	$500
Lighting	$10,000	$10,000	$10,000
Line Marking ($/m)	$8	$8	$8

[1] Most rates were sourced from Austroads Part 10 - Guide To Traffic Engineering Practice, Local Area Traffic Management. All cost estimates prepared by GTA Consultants are for broad level or initial feasibility planning only and must not be relied upon for quoting, budgeting or construction purposes. You should seek a detailed cost estimate from a suitably qualified civil engineer or quantity surveyor.