

TRANSPORT REPORT

Link Master Plan

June 2004

Prepared for
Dolina Pty Limited

MASSON | WILSON | TWINEY
TRAFFIC AND TRANSPORT CONSULTANTS

20/809 Pacific Highway
Chatswood NSW 2067
Telephone (02) 9415 2844
Fax (02) 9415 2944
Email info@mwtttraffic.com
Web www.mwtttraffic.com

COPYRIGHT: The concepts and information contained in this document are the property of Masson Wilson Twiney Pty Limited. Use or copying of this document in whole or part without the written permission of Masson Wilson Twiney Pty Limited constitutes an infringement of copyright.

Contents

1. Introduction.....	1
2. Background to the Area.....	2
2.1 Green Square Redevelopment Area.....	2
2.2 Subject Site.....	2
2.3 Road Network.....	2
2.4 Traffic Flows.....	3
2.5 Intersection Operation.....	4
2.6 Public Transport.....	4
2.7 Bicycles and Pedestrians.....	5
2.8 Green Square Transport Planning.....	6
2.8.1 Overview.....	6
2.8.2 Local Area Plan.....	6
3. Proposed Master Plan.....	8
3.1 Development Mix.....	8
3.2 Site Access.....	8
3.3 Traffic Generation.....	8
3.4 Parking.....	9
4. Transport Implications.....	11
4.1 The Road System.....	11
4.1.1 External Road System.....	11
4.1.2 Internal Road System.....	11
4.2 Traffic Impacts.....	12
4.3 Public Transport.....	13
4.4 Pedestrians.....	13
5. Summary.....	14
Appendix A - Green Square Development Control Plan-Local Transport Elements ..	A-1
Appendix B - RTA Advice on Link Road/Southern Cross Drive Intersection.....	B-1

1. Introduction

This report addresses transport aspects of a proposed redevelopment of sites on each side of Epsom Road to the west of Southern Cross Drive in Rosebery. The locations of the sites are indicated on Figure 1.

Proposed development is mainly high density residential but includes significant commercial components as well.

The draft Master Plan has been prepared in accordance with the Green Square Development Control Plan 1997: Urban Design.

The remainder of the report consists of the following sections:

- Section 2 describes the site location and existing transport conditions in the vicinity of the site;
- Section 3 describes the proposed Master Plan and its associated traffic generation and parking;
- Section 4 assesses transport implications including access and traffic impacts, and public transport, bicycle and pedestrian implications.

2. Background to the Area

2.1 Green Square Redevelopment Area

The Green Square area has been designated by the NSW State Government for redevelopment and future growth. The growth centre includes parts of Alexandria, Beaconsfield, Zetland and Rosebery.

Historically the area has been associated with manufacturing and other related industries. A Green Square Town Centre Master Plan and a Development Control Plan (Green Square Development Control Plan 1997: Urban Design) have been created to provide a framework to transform the Green Square area into a town centre and mixed use urban area with major retail, residential and commercial functions.

2.2 Subject Site

The subject site of the proposed development has a northern and southern component:

The northern triangle is bounded by Epsom Road, Link Road and Southern Cross Drive. It currently consists of a factory/warehouse and a Subaru motor dealership.

The southern section is located to the south of Epsom Road and to the west of Southern Cross Drive. It currently consists of a factory/warehouse building.

The locations of the sites are shown in Figure 1.

2.3 Road Network

It is usual to classify roads according to a road hierarchy, in order to determine their functional role within the road network. Changes to traffic flows on the roads can then be assessed within the context of the road hierarchy. Roads are classified according to the role they fulfil and the volume of traffic they should appropriately carry. The Roads and Traffic Authority (RTA) has set down the following guidelines for the functional classification of roads.

- **Arterial Road** - typically a main road carrying over 15,000 vehicles per day and fulfilling a role as a major inter-regional link (over 1,500 vehicles per hour)
- **Sub-arterial Road** - defined as secondary inter-regional links, typically carrying volumes between 5,000 and 20,000 vehicles per day (500 to 2,000 vehicles per hour)
- **Collector Road** - provides a link between local roads and regional roads, typically carrying between 2,000 and 10,000 vehicles per day (250 to 1,000 vehicles per hour). At volumes greater than 5,000 vehicles per day, residential amenity begins to decline noticeably.
- **Local Road** - provides access to individual allotments, carrying low volumes, typically less than 2,000 vehicles per day (250 vehicles per hour).

The major roads in the vicinity of the study area are described below:

Southern Cross Drive/Eastern Distributor are motorway standard arterial roads that comprise part of the Sydney orbital road system.

Epsom Road is a sub-arterial road with two lanes in each direction. It runs east/west linking Botany Road and Southern Cross Drive via Link Road.

Link Road is a sub-arterial road with two lanes in each direction. It is controlled by a roundabout at its intersection with Epsom Road to the south and left in/left out slip lanes at its intersection with Southern Cross Drive.

Lenthall Street forms a continuation of Epsom Road to the east through Randwick. It has landscaping and kerb nibs which provide a general cross section with one traffic and one parking lane each way. It provides an important bus route between Green Square and parts of Randwick.

2.4 Traffic Flows

In order to examine existing traffic conditions, intersection and access turning movement surveys were conducted at the Link Road/Epsom Road intersection and the driveways servicing the existing on site operations during peak periods on Tuesday 13th May 2003. These traffic volumes are shown in Figure 2.

Subsequently the traffic associated with the existing on site operations was removed to indicate baseline traffic volumes at the Link Road/Epsom Road intersection. These traffic flows are summarised below in Table 2.1 and in Figure 3.

The morning peak hour occurred between 8:00 am and 9:00 am and the evening peak hour between 5:00 pm and 6:00 pm.

Table 2.1 – Surveyed Peak Traffic Flows (vehicles per hour)

Road	Location	AM Peak Two Way	PM Peak Two Way
Epsom Road	East of Link Road	1633	1392
	West of Link Road	1878	1961
Link Road	North of Epsom Road	1187	1031
North Site	Combined Driveways	-	-
South Site	Combined Driveways	-	-

Epsom Road carries between approximately 1,600 and 1,900 vehicles per hour in the morning peak and 1,400 and 2000 vehicles in the evening peak. Link Road carries approximately 1,200 and 1,000 vehicles in the morning and evening peak respectively. These are consistent with their sub-arterial roles.

The traffic generation of the northern and southern sections is very low in peak periods. This reflects low activity levels and is consistent with the hiatus between their operation as active industrial uses and their transformation into mixed use commercial residential precincts.

2.5 Intersection Operation

Intersections are the critical points which control the capacity of the road network. This is due to the need for conflicting traffic movements to share the same road space at these locations.

The Epsom Road/Link Road intersection was analysed using the INTANAL intersection analysis program. INTANAL determines the average delay that vehicles encounter and provides a measure of the level of service. Table 2.2 provides operational performance criteria and Table 2.3 shows the results of the analysis.

Analysis indicates that the Epsom Road/Link Road intersection which is the critical one in the vicinity of the site operates at a satisfactory level (Level of Service B) in the morning and evening peak hour.

Table 2.2 – Level of Service Criteria

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

Adapted from RTA Guide to Traffic Generating Developments, 1993.

Table 2.3 – Existing Peak Hour Intersection Operation

Intersection	Control	AM Peak Hour		PM Peak Hour	
		LoS	Av. Del	LoS	Av. Del
Epsom Road/Link Road	Roundabout	A	9.0	A	24.8

Note: LoS = Level of Service.

Av. Del = Average delay (in seconds) per vehicle for whole intersection for signalised or for worst movement for priority and roundabout controlled intersections.

2.6 Public Transport

The site of the proposed development is approximately 900 metres from the Green Park Railway Station. Green Square Railway Station serves the Airport Rail Link which was opened in May 2000. The station is located one stop from Central (and the associated city circle) and two stops from the airport.

The local area is currently well served by buses which provide connections to Sydney CBD, University of NSW, Coogee, Botany, Daceyville and Kensington. The following bus routes service the site:

- Route 343 - Kingsford to Circular Quay
via Rothschild Avenue and Joynton Avenue with stops on Rothschild Avenue at Morley Avenue, Cressy Street and Epsom Road
- Route 370 - Leichhardt to Coogee
via Epsom Road
- Route 345 - Rosebery to Martin Place - limited service (only 1 bus in the PM)
via Epsom Road
- Route 348 - Bondi Junction to Alexandria
via Rothschild Avenue
- Route 301 - San Souci to Circular Quay
via Epsom Road
- Route 309 - Matraville to Railway Square
via Botany Road
- Route 310 - Kingsford to City
via Botany Road

The STA has a strategy to improve these services as demand in the area increases. The site is therefore well served by public transport.

2.7 Bicycles and Pedestrians

Both the Green Square DCP and town centre Master Plan highlight the importance of thoughtfully designed networks for pedestrians and cyclists.

Both Link Road and Epsom Road are bounded on either side by footpaths. The Master Plan includes the construction of a pedestrian island on Epsom Road to facilitate pedestrian movement.

In order to promote the use of bicycles in the Green Square area a number of bicycle routes either exist, are under construction or are being Planned. There is a high level of interconnectivity between existing bicycle routes in the South Sydney Area.

The existing routes in proximity to the proposed development include:

- Route 13 - Waterloo to Botany via Epsom Road
- Route 14 - Waterloo to Rosebery via Epsom Road

Additional routes under construction in the Green Square area include (see Figure 4):

- Victoria Park, Landcom - a shared pedestrian and bicycle path connecting Joynton Avenue and O'Dea Avenue.

- ACI, Meriton – a shared pedestrian and bicycle path connecting Bourke and Lachlan Street.

A future bicycle connection on a new link between Lachlan Street and O'Dea Avenue is Planned when the area between these two streets redevelops.

2.8 Green Square Transport Planning

2.8.1 Overview

The Green Square urban redevelopment area has been Planned for an increased population of about 20,000 persons and increased employment of about 16,000 jobs. Transport Planning for the area has been premised on the following principles:

- minimised use of private vehicles
- high usage of public transport
- fostering of local travel by cycling and walking, and
- provision of a mix of dwellings, employment and local facilities so as to contain travel within the local area as much as possible.

A Road Hierarchy and Traffic Study for the area has identified a number of regional road improvements that will be needed to serve the future development. The RTA has allocated a budget of \$80 million towards these works. A Transport and Access study has identified future public transport corridors for service improvement and proposes an incremental increase in services as the population and employment in the area increase.

The Road Hierarchy Study recommended that a full interchange be provided between the Eastern Distributor/Southern Cross Drive and Link Road or Epsom Road. At present, only left in/left out movements are allowed to/from the motorway. The RTA is presently contemplating provision of an interchange at Gardners Road instead. It has, however, requested that no building take place on the apex of the northern site so that if an interchange was to be provided on Epsom Road/Link Road it would be possible to make the necessary lane adjustments. This has been provided for in the Master Plan.

It is noted that traffic forecasts prepared for the Green Square Road Hierarchy and Traffic Study indicated that, over time, regional road improvements elsewhere in the Green Square area would attract traffic away from Epsom Road. Thus, the worst case situation for traffic would occur in the medium term future. Accordingly, the analysis conducted for this report has added the forecast traffic generation of the site onto existing background traffic flows in order to assess traffic implications.

2.8.2 Local Area Plan

The Green Square Development Control Plan provides for the following local transport elements:

- a regional bike route along Epsom Road past the frontage of the site
- a new north-south local road straddling the western boundary of the southern site, generally as an extension
- a new east-west local road at a midpoint across the subject site and the adjoining site.

These are shown in the main Master Plan document. A copy is also provided in Appendix A of this report.

3. Proposed Master Plan

The proposed Master Plan is indicated on Figure 5. This shows site access points, building envelopes and internal roads.

3.1 Development Mix

It is proposed to demolish the existing buildings and develop buildings on each section of the site with the following indicative development mix:

North Triangle

- 3987 m² GFA commercial
- 266 apartments
- 252 parking spaces

Southern Section

- 1700 m² GFA commercial
- 661 apartments
- 543 parking spaces

3.2 Site Access

As part of the Master Plan it is proposed to modify the local road network as follows:

1. Replace the roundabout at the Link Road/Epsom Road intersection with a set of traffic lights.
2. Extend Link Road to lead into the southern section as per the Green Square DCP.
3. Rearrange the traffic lanes on Epsom Road to provide a separate left in/left out access to the eastern end of the southern section and a fully directional car entry/exit point to the northern triangle. The latter access would have a sheltered right turn entry lane in Epsom Road.

A low key visitor access to the northern site is proposed off Link Road. This would have separate entry and exit driveways.

3.3 Traffic Generation

The traffic generated by the various aspects of the proposed development is calculated in Table 3.1. The rates used were the ones used in the Green Square Road Hierarchy and Traffic Study which produced an overall road Plan for the Green Square area.

Table 3.1 – Estimated Traffic Generation

Site Location	Type	Units /GLFA	Peak Hour Traffic Generation	Vehicle Trips per Hour	
				Morning Peak	Evening Peak
North	Residential	266 Units	0.44 vehicle trips/unit	117	117
	Commercial	3987 m ²	0.84 vehicle trips/100m ²	33	33
South	Residential	661 Units	0.44 vehicle trips/unit	291	291
	Commercial	1700 m ²	0.84 vehicle trips/100m ²	14	14
				455	455

The residential traffic generation rate used is consistent with the rate surveyed at the nearby Kimberley Grove residential development on Dalmeny Avenue.

It is anticipated that the actual rate will decrease over time as public transport in the area and facilities within walking distance are improved.

3.4 Parking

The South Sydney DCP No.11: Transport Guidelines for Development in combination with the Green Park DCP specifies the maximum amount of parking that can be provided for the proposed development. These rates apply to developments more than 800 metres from Green Square Station.

Northern Triangle

103 x 1 bedroom units @ 0.5 spaces/unit =	52 spaces
163 x 2 bedroom units @ 1 space/unit =	163 spaces
1 visitor space/6 units for 266 units =	44 spaces
3987 m ² GFA commercial @ 1 space/80 m ² =	50 spaces
Total =	309 spaces

Southern Site

288 x 1 bedroom units @ 0.5 spaces/unit =	144 spaces
373 x 2 bedroom units @ 1 space/unit =	373 spaces
1 visitor space/6 units for 649 units =	108 spaces
1700 m ² GFA commercial @ 1 space/80 m ² =	21 spaces
Total =	646 spaces

2% of all spaces should be allocated to disabled drivers and at least 10% of the commercial spaces should be allocated for visitors.

South Sydney Council's draft Land Use and Transport DCP (August 2003) allows higher parking provisions depending on the size of unit but also sets minimum sizes.

The ranges are as follows for "standard" apartment sizes as applicable to the subject sites which have "a low public transport integration index".

Apartment Type	Parking Provision Rate (spaces/unit)	
	Minimum	Maximum
Studio and one bedroom	0.5	0.8
Two bedroom	0.7	1.0
Visitor park	0.125	0.167
Commercial	1/125m ²	1/50m ²

Based on these rates the minimum and maximum parking supply allowable would be as follows:

	Southern Site		Northern Triangle	
	Minimum	Maximum	Minimum	Maximum
One bedroom	144	201	52	82
Two bedroom	261	373	114	163
Visitor	83	110	33	44
Commercial	14	34	32	80
Total	502	718	231	369

The proposed provision of 543 spaces for the south section and 252 spaces for the northern triangle falls within these ranges.

4. Transport Implications

4.1 The Road System

4.1.1 External Road System

As indicated above it is proposed to realign the southern end of Link Road so that it will feed directly into the north south road system within the site. The existing free left turn lane from Epsom Road into Link Road would be retained thus leaving vehicular access to an Audi dealership on the north western corner of the intersection unchanged. Signalisation of the intersection would improve its capacity and make pedestrian crossing movements much safer and easier.

It is proposed to reconfigure Epsom Road between Link Road and the Southern Cross Drive overpass to provide one through traffic lane each way as at present. These would connect in a more deliberate way with the single traffic lanes each way in Lenthall Street to the east. Kerb nibs and road markings would separate bus stops and turning lanes from the through lanes.

No physical changes are proposed in Link Road other than the replacement of three entry/exit driveways with one entry and one separate exit driveway to a low key commercial visitor parking area. Subject to Council and RTA requirements it would be desirable to mark the kerb lane adjacent to the site as an auxiliary lane with left turn traffic from Southern Cross Drive channelled into the centre northbound lane.

Finally in relation to the external road system the Master Plan keeps development clear of the Link Road/Southern Cross Drive corner in order to allow future improvements to the intersection as per an RTA request (see Appendix B).

4.1.2 Internal Road System

As indicated, it is proposed to provide a low key loop through visitor driveway for the northern triangle off Link Road. The main access to the southern section will be provided via a driveway feeding into its car parks off Epsom Road. This driveway and the car park layout are proposed to be in accordance with the Australian Standard.

The northern triangle will also be served by a service driveway off Epsom Road adjacent to Southern Cross Drive. This separate access is in accordance with South Sydney Council's draft Land Use Transport Guidelines. The location has been selected as it is logical to provide heavy vehicle access in the most noise affected area which is adjacent to the motorway. It is envisaged that this access would allow left turn entries only but would allow left and right turn egress. This arrangement would cause service vehicles to access the site from the Green Square direction rather than the Randwick direction.

The southern section is proposed to have a u-shaped internal primary road system with two cross connections. The arrangement will be logical and direction finding would be intuitive.

The main entry road will be adjacent to the western boundary. One entry and two exit lanes are proposed to the approach to the traffic signals on Epsom Road. In due course if, or when the site to the west was redeveloped, it could contribute an additional lane to the approach to provide four lanes and share access via this road.

A second left in/left out access is proposed to serve the eastern north south road to:

- avoid excessive concentrations of traffic internally
- reduce pressure on the main signalised access
- provide a loop system so that vehicles will be able to flow through the site
- and provide a supplementary point of access in the event of an incident at the main access.

The rest of the road system is proposed to provide essentially one travel lane each way with indented parking for visitors in most locations

4.2 Traffic Impacts

Figure 6 shows expected future traffic flows with the additional traffic generation of the site loaded on to the surrounding road network. Existing and future flows are compared on Table 4.1. Future intersection operation is indicated on Table 4.2 and the future traffic flows in Figure 6.

Table 4.1-Existing and Future Traffic Flows (vehicles per hour)

Road	Location	AM Peak Hour – Two Way		PM Peak Hour – Two Way	
		Existing	Future	Existing	Future
Epsom Road	East of Link Road	1633	1918	1392	1604
	West of Link Road	1878	2078	1961	2180
	East of Site	-	1855	-	1631
Link Road	North of Epsom Road	1187	1383	1031	1174
	South of Epsom Road	-	163	-	214
Link Road Extension					
Site Accesses	Northern triangle Epsom	-	193	-	192
	Road main				
	Southern section Epsom	-	98	-	75
	Road secondary				

Table 4.1 indicates that there would be a moderate increase in traffic flows in the area.

Table 4.2 – Future Peak Hour Intersection Operation

Intersection	Control	AM Peak Hour		PM Peak Hour	
		LoS	Av. Del	LoS	Av. Del
Epsom Road/Link Road	Signal	B	27.7	B	14.2
Epsom Road/Northern triangle main access points	Signs	B	26.2	B	21.1

Note: LoS = Level of Service.

Av. Del = Average delay (in seconds) per vehicle for whole intersection for signalised or for worst movement for priority and roundabout controlled intersections.

The results in Table 4.2 indicate that the signalised Epsom Road/Link Road intersection would operate at a good level of service in the morning and evening peak hour (Level of Service B). The level of service at the Epsom Road/northern triangle access intersection will also be good (Level of Service B).

Thus the road system has sufficient capacity to accommodate the traffic generation of the proposed Master Plan development.

4.3 Public Transport

Bus stops on each side of Epsom Road adjacent to the two sites would be retained. It would be appropriate to provide quality shelters at these. Otherwise the main implication of the Master Plan would be to enhance the demand for public transport services which in turn would allow service frequencies to be increased.

4.4 Pedestrians

The proposed traffic signals at the Epsom Road/Link Road intersection will make it much easier for pedestrians to cross these two roads.

The proposed midblock pedestrian refuge on Epsom Road would allow pedestrians to cross between commercial development on the two sites without having to walk up to the Link Road intersection.

Pedestrian paths along roads within the two sites will provide good pedestrian conditions within the site.

5. Summary

Existing Situation

- The subject site of the proposed development has northern and southern components. The northern triangle is bounded by Epsom Road, Link Road and Southern Cross Drive. The southern section is located to the south of Epsom Road and to the west of Southern Cross Drive.
- The northern triangle presently has a motor dealership and a garment factory/warehouse on it.
- The southern section has a large warehouse building on it.
- Activity levels on the two components are presently low pending a decision on the future of the two sites.
- The sections have good access via Southern Cross Drive/Eastern Distributor (to north/from south) and via Epsom Road.
- Traffic conditions in the vicinity of the site are generally satisfactory.
- The site is part of the Green Square Area which has been designated by the NSW Government for redevelopment and future growth.

Proposed Master Plan

- The proposed Master Plan provides for a mixed development with 266 residential units and 3987m² of commercial development on the north side and 661 units and 1700m² of commercial development on the south side.
- Vehicular access is proposed to the southern section via a new signalised intersection of Link Road with Epsom Road with a fourth leg to the intersection projecting into the site.
- A separate left in/left out access is proposed for the eastern side of the southern section to facilitate traffic circulation and minimise vulnerability to disruption of access to this large site due to it having only a single point of access.
- The northern triangle will logically be served by three vehicular access systems with a low key visitor access off Link Road, a main car park access off Epsom Road and a separate service vehicle access off Epsom Road.
- Car parking is proposed to be provided in accordance with South Sydney Council's DCP.

Transport Impacts of Master Plan

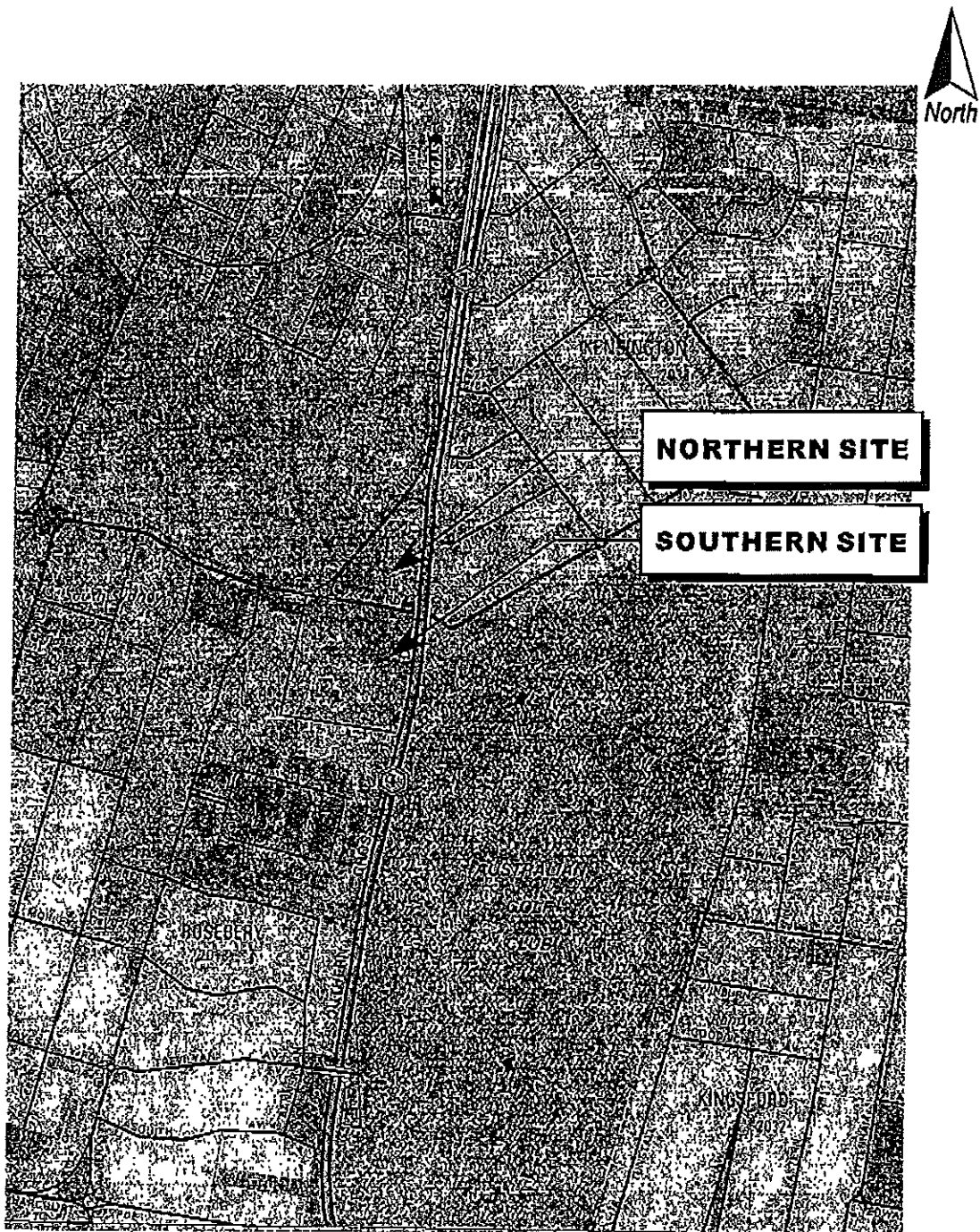
- The proposed site access arrangements will spread increased traffic loads.
- The proposed internal road systems and vehicular access arrangements will provide well for individual property or car park access.
- A proposed pedestrian refuge and pedestrian phases at the new Link Road/Epsom Road intersection will improve pedestrian access between the sites and to/from the broader Green Square area generally.
- The Master Plan development will not of itself generate a need for additional bus routes, but will help to underpin gradual improvements to service frequencies in the area as anticipated in the STA's strategy for serving the evolving Green Square area.

Conclusions

- It is concluded that the proposed Master Plan is a logical response to transport constraints and opportunities in the area. It is well Planned from a transport perspective.

SITE LOCATION

EPSOM ROAD SITES MASTER PLAN

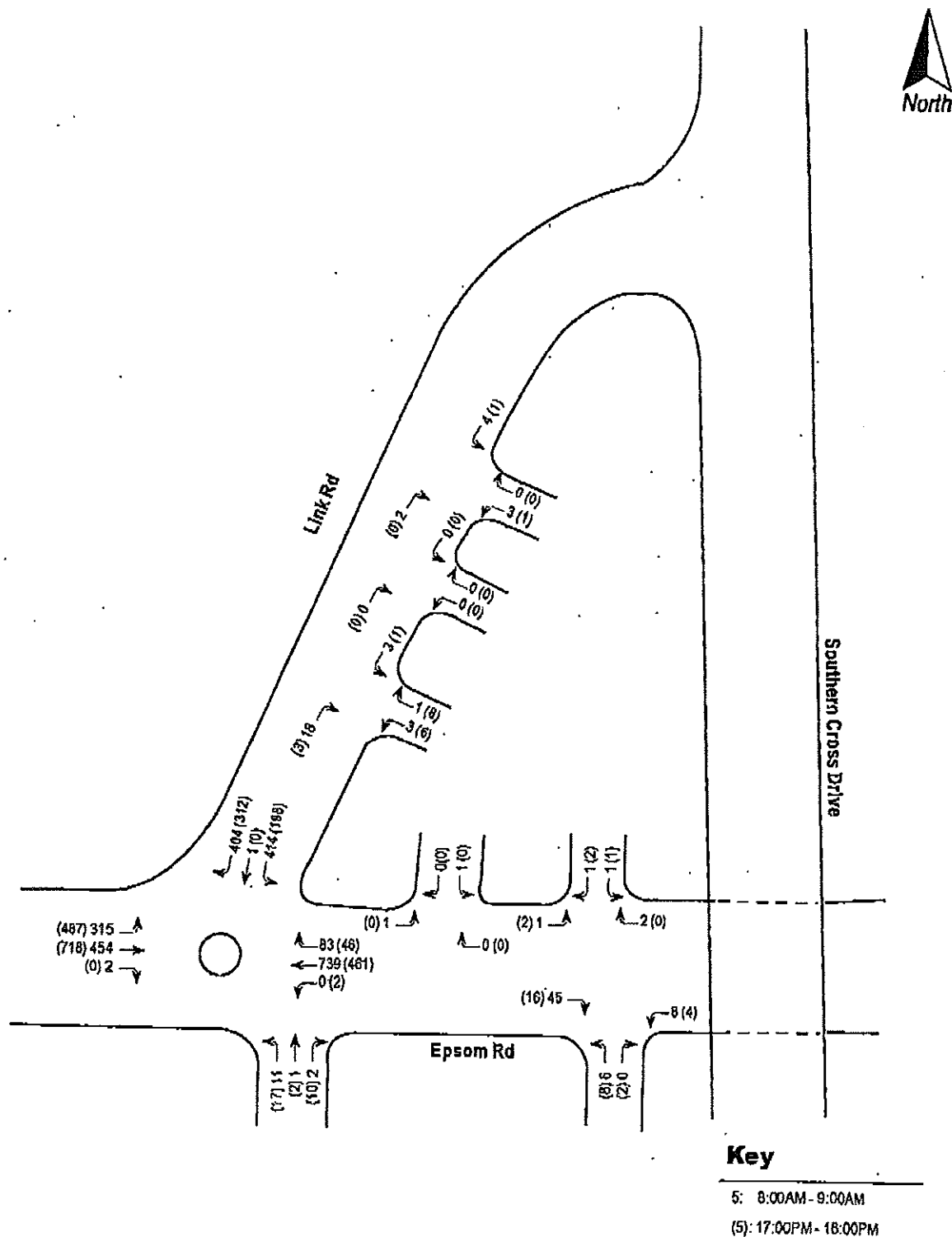


MASSON | WILSON | TWINEY
TRAFFIC AND TRANSPORT CONSULTANTS

Figure 1

Filename: 021820d02.ai

Date: 28 November 2002

EXISTING PEAK HOUR TRAFFIC VOLUMES**EPSOM ROAD SITES MASTER PLAN**

MASSON | WILSON | TWINEY
TRAFFIC AND TRANSPORT CONSULTANTS

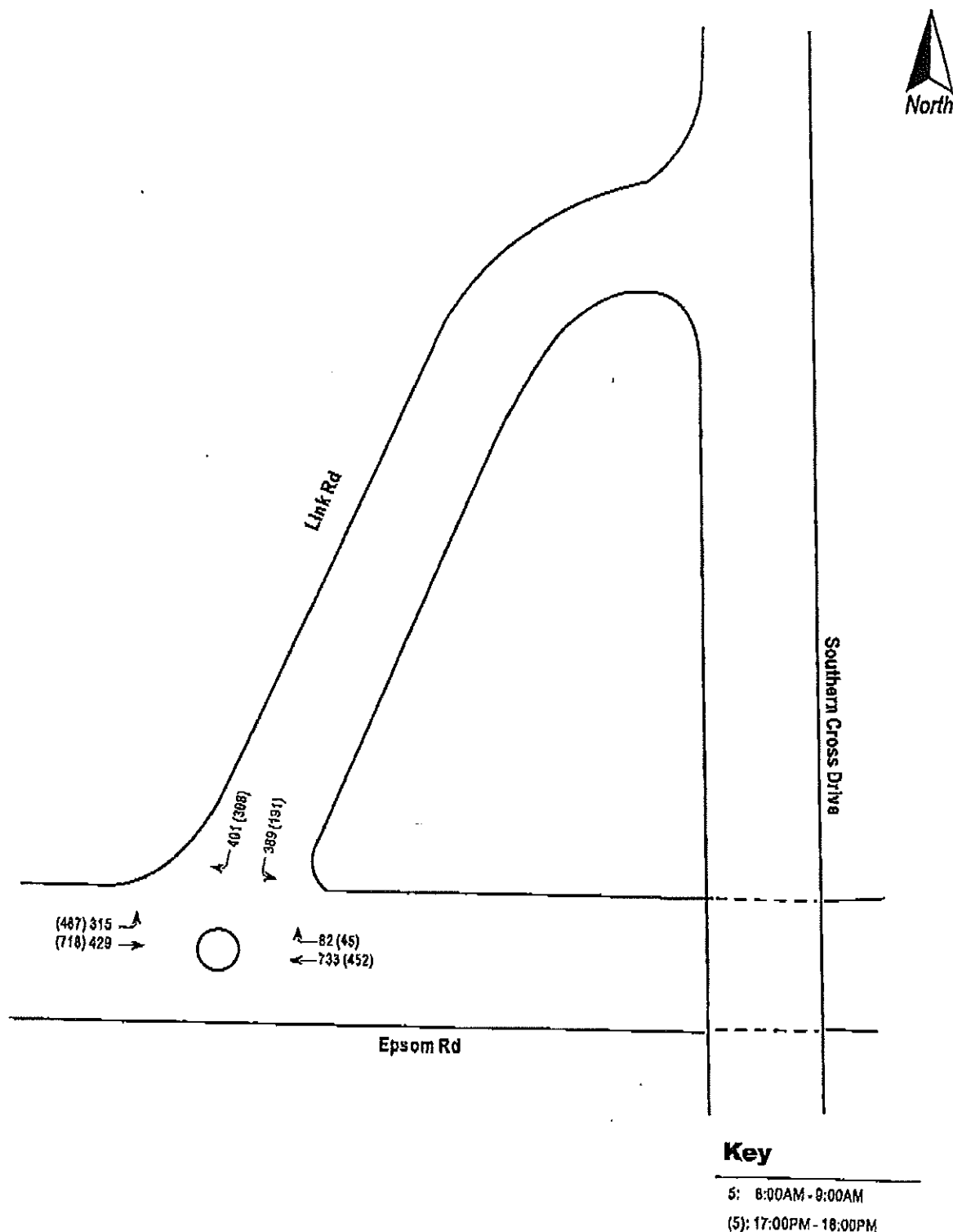
Figure 2

Filename: 021820d101.ai

Date: 24 June 2003

BASELINE PEAK HOUR TRAFFIC VOLUMES

EPSOM ROAD SITES MASTER PLAN



MASSON | WILSON | TWINEY
TRAFFIC AND TRANSPORT CONSULTANTS

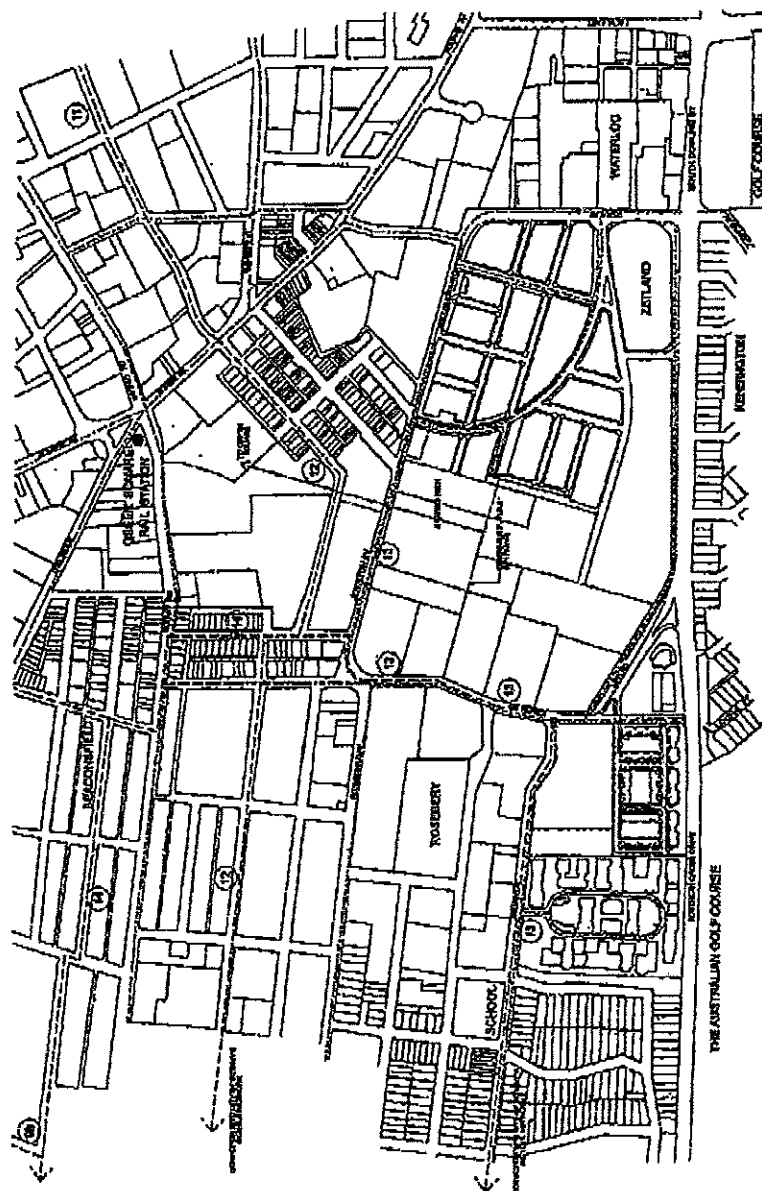
Figure 3

Filename: 021820d03.ai

Date: 30 March 2004

LOCAL BIKE ROUTES

EPSOM ROAD MASTER PLAN



- LEGEND
- BICYCLE ROUTE
 - PEDESTRIAN PATH
 - SHARED PARK
 - BICYCLE ROUTE NUMBER

HASSON | WILSON | TWINEY
TRAFFIC AND TRANSPORT CONSULTANTS

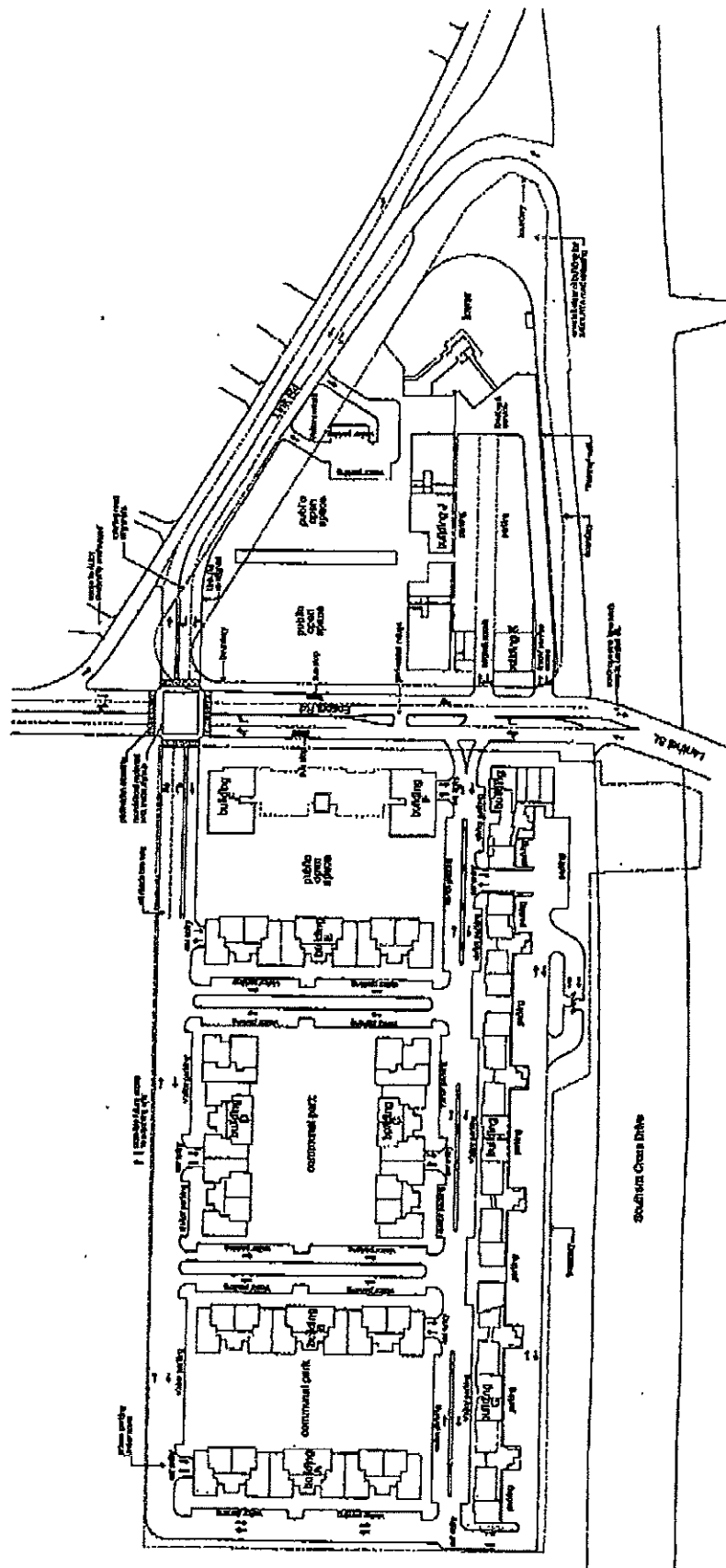
Figure 4

Filename: 021820d06.ai

Date: 30 March 2004

ROAD SYSTEMS

EPSOM ROAD MASTER PLAN



MASSON | WILSON | TWINEY
TRAFFIC AND TRANSPORT CONSULTANTS

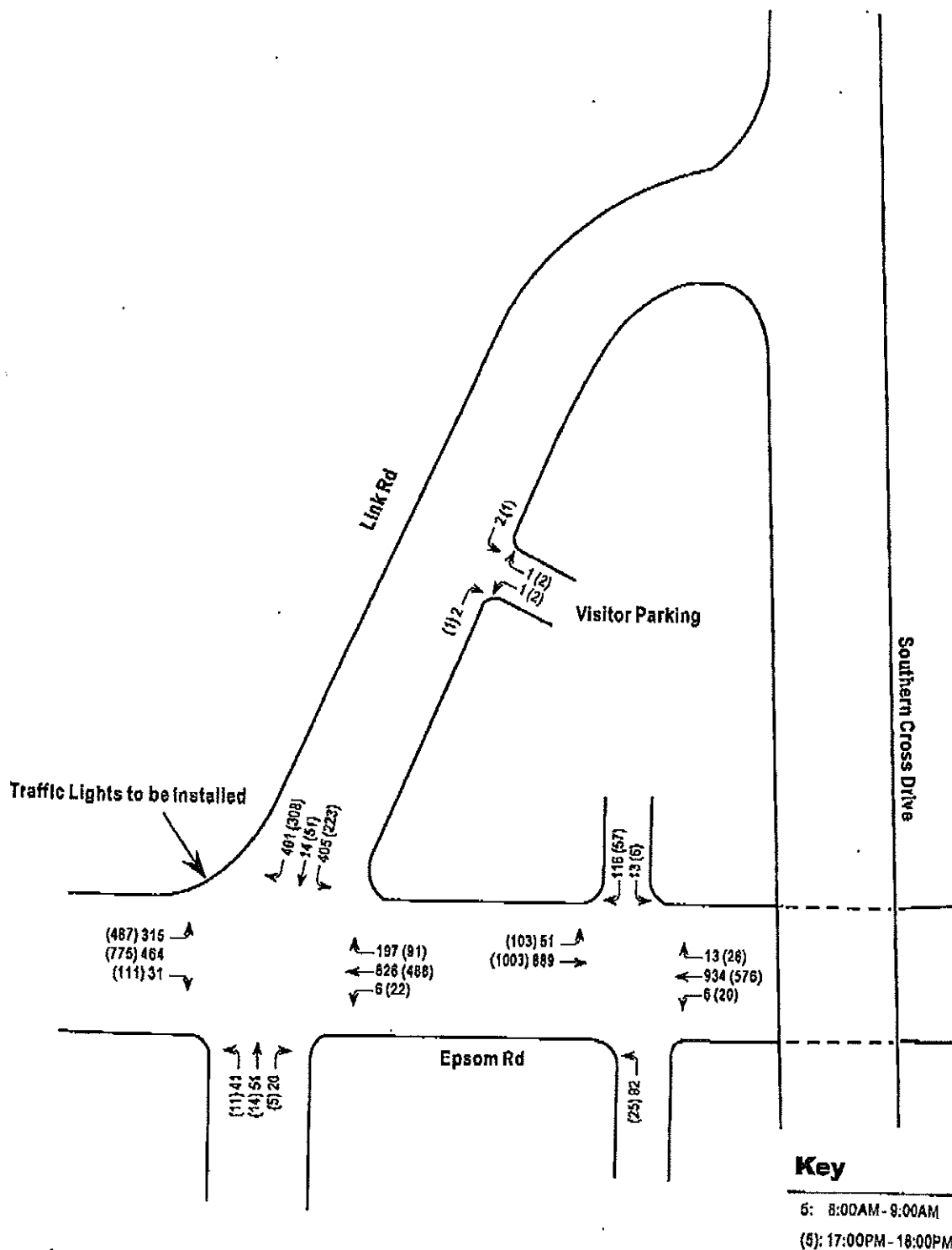
Filename: 021820d105.ai

Figure 5

Date: 30 March 2004

COMBINED FUTURE PEAK HOUR TRAFFIC VOLUMES

EPSOM ROAD SITES MASTER PLAN



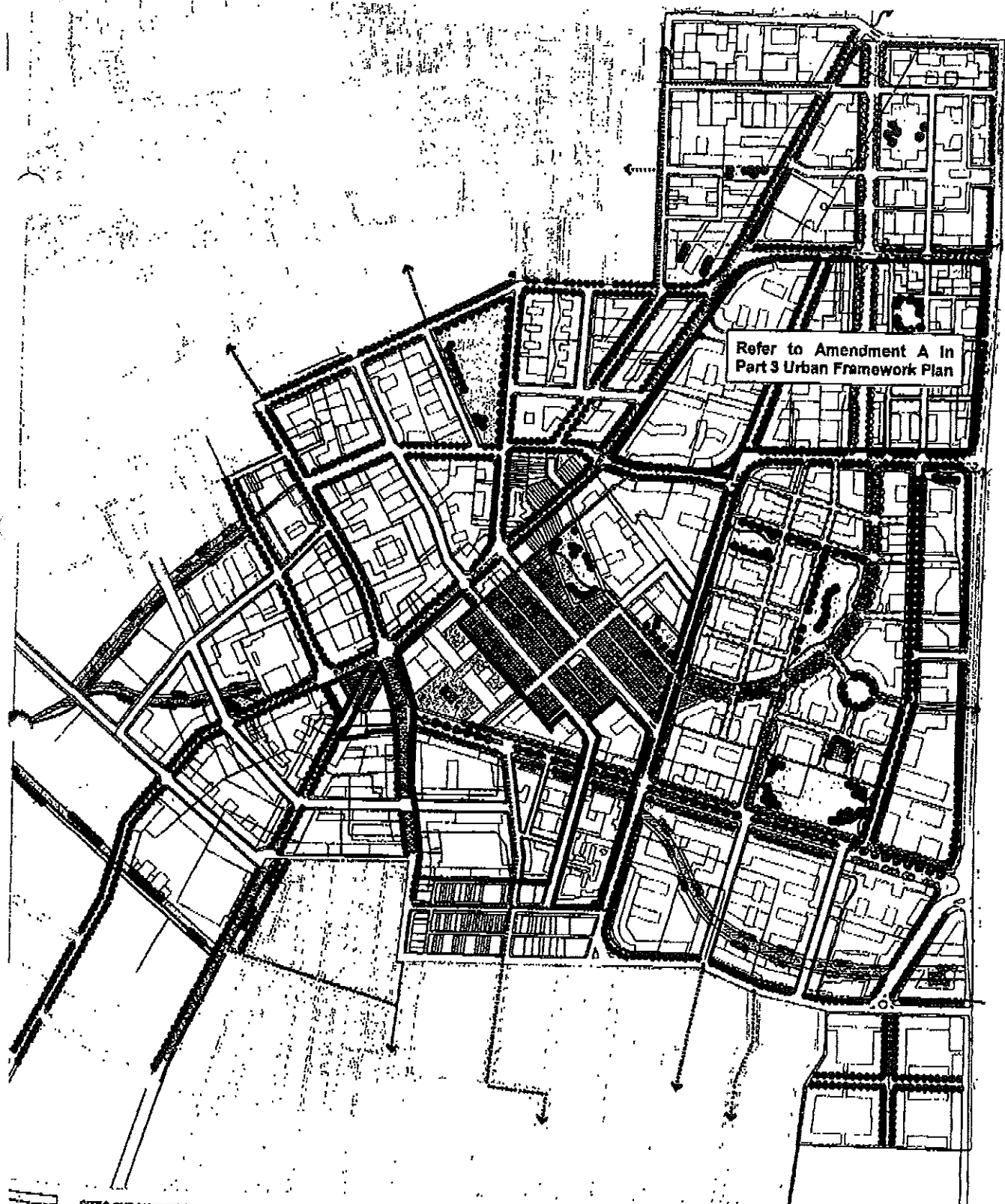
MASSON | WILSON | TWINEY
TRAFFIC AND TRANSPORT CONSULTANTS

Filename: 021820di04.pl

Figure 6

Date: 24 May 2004

Appendix A - Green Square Development Control Plan- Local Transport Elements



- SITES SUBJECT TO MASTER PLAN AS ENDORSED BY COUNCIL
 PUBLIC OPEN SPACE - LANDSCAPING
 PUBLIC OPEN SPACE - PAVED
 WATER FEATURES
NOTE: PUBLIC OPEN SPACES SHOWN EXCLUDE PUBLICLY ACCESSIBLE COMMERCIAL OPEN SPACES

- BIKE ROUTES
 REGIONAL ROUTES OFF ROAD
 LOCAL OFF-ROAD
 LOCAL ON-ROAD

DEFERRED

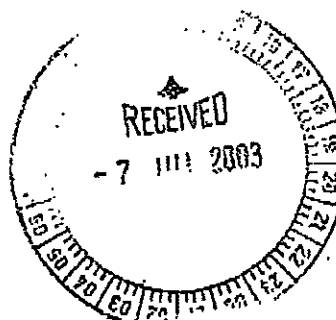


10TH SYDNEY CITY COUNCIL
 FEBRUARY 1999

GREEN SQUARE
 DEVELOPMENT CONTROL PLAN
 URBAN FRAMEWORK
 MAP 4 - PUBLIC DOMAIN

Appendix B - RTA Advice on Link Road/Southern Cross Drive Intersection

Bruce Masson
Masson Wilson Twiney
Suite 47 Chatswood Village
47 Noridan Street
CHATSWOOD NSW 2067



3 July 2003

Dear Bruce

**Proposed Master plan for Redevelopment of 132 Epsom Road, 105 Link Road
and 947 South Dowling Street, Rosebery.**

I refer to your recent letter concerning the preparation of a Master Plan for the redevelopment of the above-mentioned sites and your request for a meeting with relevant RTA staff to discuss the draft Master Plan and preliminary comments on the proposed access arrangements

I note that you have discussed the appropriateness of the proposed access arrangements with RTA officers in the Motorways Services Branch with regards to the implications of these to a full interchange with the Southern Cross Drive/Eastern Distributor route at Link Road & Epsom Road.

RTA does not have a proposal at this time for provision for a full or partial Southern Cross Drive interchange at Link Road. However, it would be prudent to make provision for a future interchange in the Master Plan being developed.

A previous investigation envisaged the land affectation on the corner of Link Rd and Epsom Road (Dolina Land) as shown on the attached sketch. However, this does not imply a commitment to any particular layout. It would be prudent for a building set back line to be in accord with this sketch.

With regards to the proposed access arrangements the following comments are to be taken into consideration in finalising the Master Plan

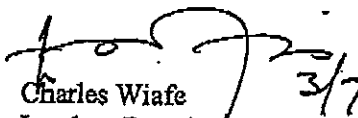
- An analysis is required to justify the proposed replacement of the existing roundabout with traffic signals. In addition traffic modelling of the proposed traffic signals is required to identify any associated impacts, on the existing traffic signals to the west. It is noted that the access to the Southern site is proposed to be widened to four lanes at some in the future. Provision needs to be made for this configuration.



- The proposed signals would also need to demonstrate the capacity to cater for future traffic growth associated with the redevelopment of Green Square.
- The proposed access onto Link Road should be restricted to Left in/Left out only to reduce impacts on approaches to Southern Cross Drive. Proposed traffic signals will facilitate this restriction. Slip lane for left in may be required.
- Appropriate set backs as shown on the attached sheet is recommended. This is to ensure that should improvement along Link Road be considered at some future date it can be implemented.
- All cost associated with the proposed development including the traffic signals and road widening for the development shall be at full cost to the developer. The RTA will not incur any associated costs with this proposal.
- The Authority would like the opportunity to comment on the revised Master plan prior to it being adopted by Council.

Should you wish to discuss these issues any further please contact me on 8814 2425

Yours sincerely


Charles Wiafe
Landuse Development Manager