Proposed
Shepherds Bay Urban Renewal
Concept Proposal

Belmore Street, Constitution Road & Bowden Street, Meadowbank

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TRANSPORT MANAGEMENT AND ACCESSIBILITY PLAN

19 November 2010

Ref 09260

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1. INTRODUCTION

This Transport Management and Accessibility Plan (TMAP) has been prepared on behalf of *Robertson & Marks Architects Pty Ltd* to accompany a Concept Plan application to The Department of Planning for the proposed Shepherds Bay Urban Renewal project, located in the area generally bound by Bowden Street, Constitution Road and Belmore Street, Meadowbank (Figures 1 and 2).

The Shepherds Bay Urban Renewal project is located within the Meadowbank employment area, and will involve the staged redevelopment of the existing industrial landuses in the area for residential purposes. The dwellings will take the form of modern, architecturally designed residential flat buildings.

This report has been prepared in accordance with the DGR's dated 20 May 2010, with reference to the *Metropolitan Transport Plan - Connecting the City of Cities*, the *NSW State Plan*, the *NSW Planning Guidelines for Walking and Cycling*, the *Integrated Land Use and Transport Policy Package*, the *NSW Bike Plan* and the RTA's *Guide to Traffic Generating Developments*, and the *Meadowbank Employment Area - Masterplan Transport Assessment*.

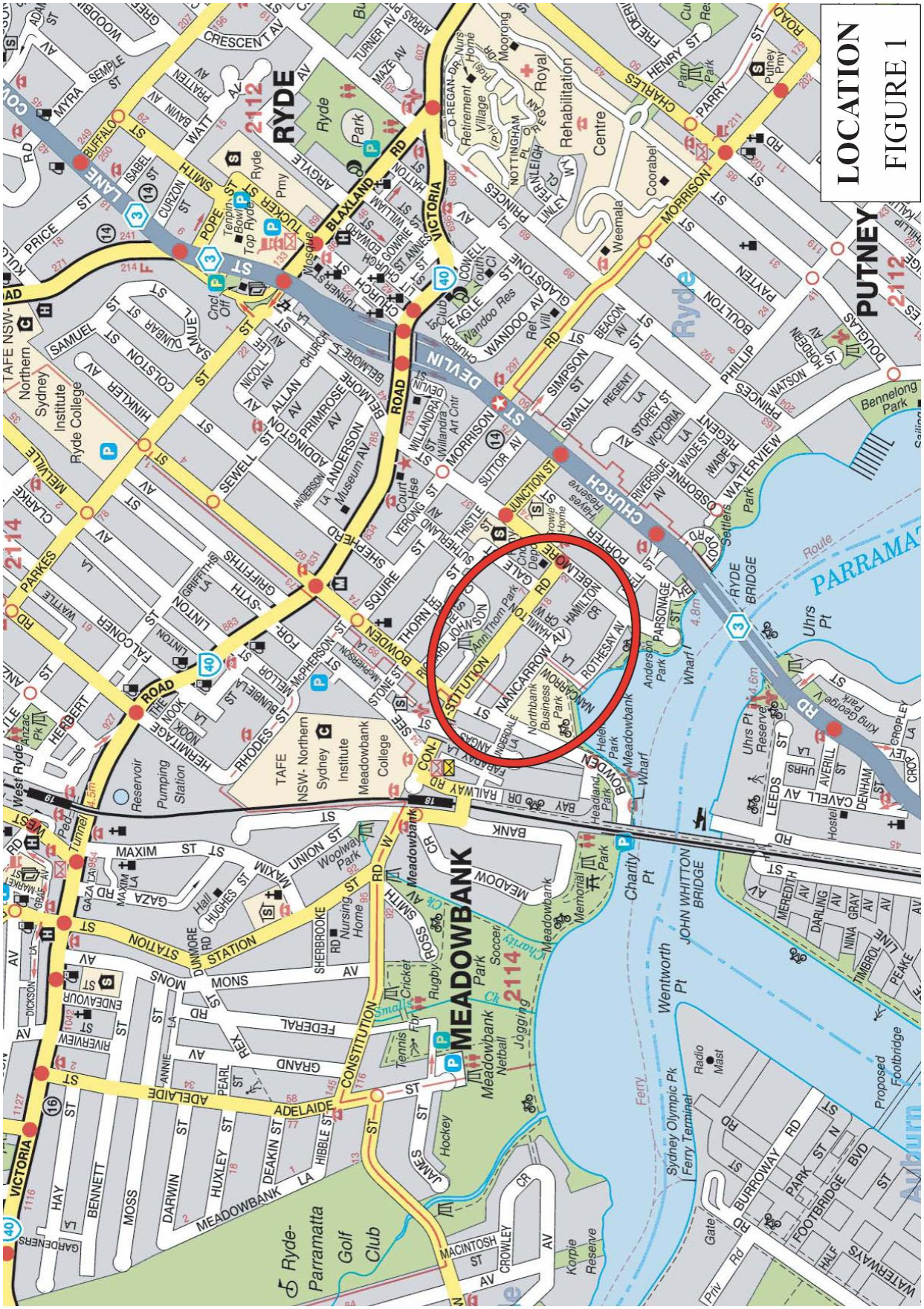
In broad terms, the scale of the redevelopment proposed indicates that the traffic generation potential of the proposed residential development will not be significantly higher than that of the industrial landuses it replaces.

It is appreciated however, that some of the industrial premises are currently underutilised, and that the change of use from industrial to residential will result in changes to trip distribution, in that the *direction* of peak period traffic flows will be reversed, with traffic *departing* the precinct in the AM peak rather than *approaching* its precinct as occurs with the current industrial landuses.

It is anticipated that construction of the Shepherds Bay Urban Renewal project will be undertaken in several stages, over a period of some 10-15 years.

The purpose of this report is to provide a "masterplan" assessment of the cumulative transport, traffic and parking implications of the overall development proposal, and to that end this report:

- describes the site and provides details of the development proposal
- reviews the road network in the vicinity of the site, and the traffic conditions on that road network
- identifies appropriate transport measures and strategies which will improve transport outcomes for Shepherds Bay residents in terms of public transport, walking and cycling
- assesses the traffic implications of the development proposal in terms of road network capacity
- assesses the adequacy and suitability of the off-street carparking facilities proposed on the site.


LOCATION
FIGURE 1
RYDE
PUTNEY
MEADOWBANK
CHURCH
DEVLIN
VICTORIA
BLAXLAND
MORRISON
CONSTITUTION
NANCARROW
ADELAIDE
MACINTOSH
Ryde-Parramatta Golf Club
Meadowbank Park
Wentworth Pt
Charity Pt
Uhrs Pt
Bennelong Park
Settlers Park
Anderson Park
Ryde Park
Woolwich Park
Pumping Station
Reservoir
TAFE NSW- Northern Sydney Institute Meadowbank College
Ryde College
Northern Sydney Institute
Royal Rehabilitation Centre
Retirement Village
Nursing Home
Hostel
Court Hse
Museum
Willandra Art Cntr
Ferry Terminal
Sydney Olympic Pk
Proposed Footbridge
RYDE BRIDGE
JOHN WHITTON BRIDGE
FOOTBRIDGE
Meadowbank Netball
Hockey
Tennis
Cricket
Rugby
Soccer
Jogging
Korpie Reserve
Helen Meadowbank Park
Headland Park
Memorial Park
Northbank Business Park
Weemala
Coorabel
Wandoo Res
Wharf
Ferry
Radio Mast
Gate
Pmy
Rd
PARRAMATTA ROAD

SITE
FIGURE 2

FIGURE 34. TERRACE CONCEPT PLAN

2. PROPOSED DEVELOPMENT

Site

The subject site is bounded by Bowden Street, Constitution Road and Belmore Street, and forms part of the Meadowbank employment area.

The Shepherds Bay precinct is currently occupied by a large number of industrial buildings and associated landuses such as carparking and service vehicle areas.

A survey of properties located within the Shepherds Bay precinct has identified approximately 40 industrial buildings or premises within the precinct, with a cumulative floor area of approximately 72,200m^2. At the time of the survey approximately 42,700m^2, or 59.2% of the total floor area was occupied.

Vehicular access to the existing industrial buildings is provided via Belmore Road, Constitution Road and Bowden Street around the perimeter of the precinct, as well as Hamilton Crescent, Nancarrow Avenue and Rothsay Avenue which extend into the precinct off the abovementioned perimeter roads.

There are no connecting roads within the precinct which would allow through traffic movements to traverse the precinct in either an east-west or north-south direction; all of the roads that extend into the precinct off the perimeter road network are cul-de-sacs or loop roads which return to the perimeter road network.

Proposed Development

The proposed redevelopment of the Shepherds Bay precinct envisages the redevelopment of the existing industrial precinct for residential purposes, in a manner similar to the redevelopment which has already occurred to some extent in the area located between Bowden Street and Bay Drive, immediately adjacent to the main northern railway line.

For the purposes of this assessment it has been assumed that up to 3,000 dwellings could be provided within the Shepherds Bay precinct, although it is understood that, in practice, the

number of dwellings that may ultimately be provided within the precinct is likely to be somewhat lower. The figure of 3,000 dwellings is therefore adopted as an upper limit, to provide a more rigorous assessment of the traffic and transport implications of the proposed development.

The proposed development also makes provision for a number of changes and improvements to the road network within the Shepherds Bay precinct (see Figure 3), as follows:

- removal of the existing two-lane elevated roadway/viaduct along Constitution Road, and the construction of a new road at ground level, comprising two traffic lanes *plus* two kerbside parking lanes

- construction of a new two-way local access road along the foreshore, between Belmore Street and Bowden Street, generally following the alignment of Rothsay Avenue, and

- construction of a new two-way local access road between Belmore Street and Bowden Street, generally following the alignment of Nancarrow Avenue and Hamilton Crescent.

The subject site is ideally located approximately 500m walk from Meadowbank Railway Station and the local shopping centre which comprises a range of shops, restaurants and services such as the local post office. Additional retail facilities (including a new supermarket) are located within a short walking distance of the site, on the lower levels of the recently completed high density residential developments located in Bay Road.

The subject site is also located within approximately 300m walking distance of the local primary school, and approximately 500m walking distance from Meadowbank TAFE College.

In addition, a number of regular bus services traverse the site via Constitution Road and Bowden Street which connect with Meadowbank Railway Station and Meadowbank Ferry Wharf. Additional bus services are also available in Church Street and in Victoria Road, to the east and north of the site respectively.

The ferry wharf is located approximately 400m walk from the mid-point of the site, and caters for regular ferry services between Parramatta and the Central Sydney CBD.

LEGEND:

- Vehicular Access
- Internal Road & destinations
- Foreshore pedestrian access
- Ferry access
- Railway Line
- Bus Stop

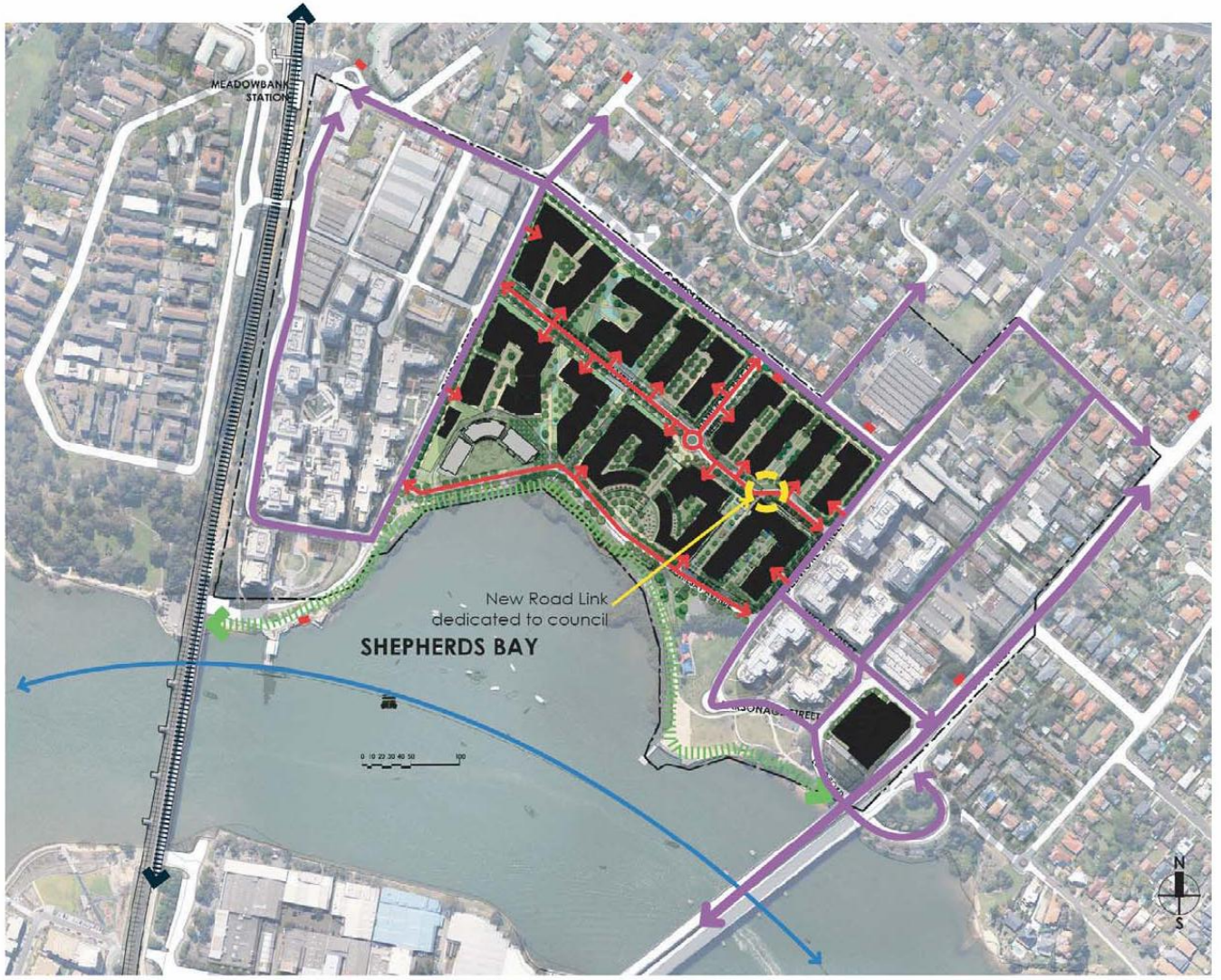


FIGURE 41. VEHICULAR ACCESS AND PUBLIC TRANSPORT PLAN

TRANSPORT & ACCESS NETWORK
FIGURE 3

The changes and improvements to the local road network within the Shepherds Bay Precinct, as described above, will significantly improve the permeability of the neighbourhood for pedestrians and cyclists, particularly for those residents wishing to walk or cycle to the nearby primary school, TAFE college, railway station or ferry wharf.

In particular, the development makes provision for a number of new bicycle paths as illustrated on Figure 4. The proposed bicycle paths are proposed along Constitution Road and along the two new east-west access roads described above, as well as a new bicycle path following a north-south alignment between the foreshore and Constitution Road.

The proposed development also seeks to provide improved pedestrian accessibility throughout the local area, with particular emphasis on providing improved pedestrian links from the precinct to Meadowbank Station and Meadowbank Ferry Wharf and the retail facilities located in Bay Road/Railway Road. The proposed pedestrian network is illustrated on Figure 4.

During the preparation of this report discussions were held with officers from Council's Traffic Engineering Section and the Roads and Traffic Authority's Development Assessment Unit. The RTA requested that a capacity analysis be undertaken at a number of intersections located on Victoria Road and Church Street in the vicinity of the site, as follows:

- Victoria Road/Bowden Street
- Victoria Road/Belmore Street
- Church Street/Well Street
- Church Street/Junction Street
- Church Street/Morrison Road

This assessment has also analysed the operational performance of a number of local road intersections located around the perimeter of the site, as follows;

- Porter Street and Loops Street and Parsonage Street
- Belmore Street and Constitution Road
- Constitution Road and Hamilton Crescent
- Constitution Road and Bowden Street
- Railway Road and Bank Street.

The results of that analysis are discussed in Chapter 3 of this report.

LEGEND:

Pedestrian access

Bicycle paths

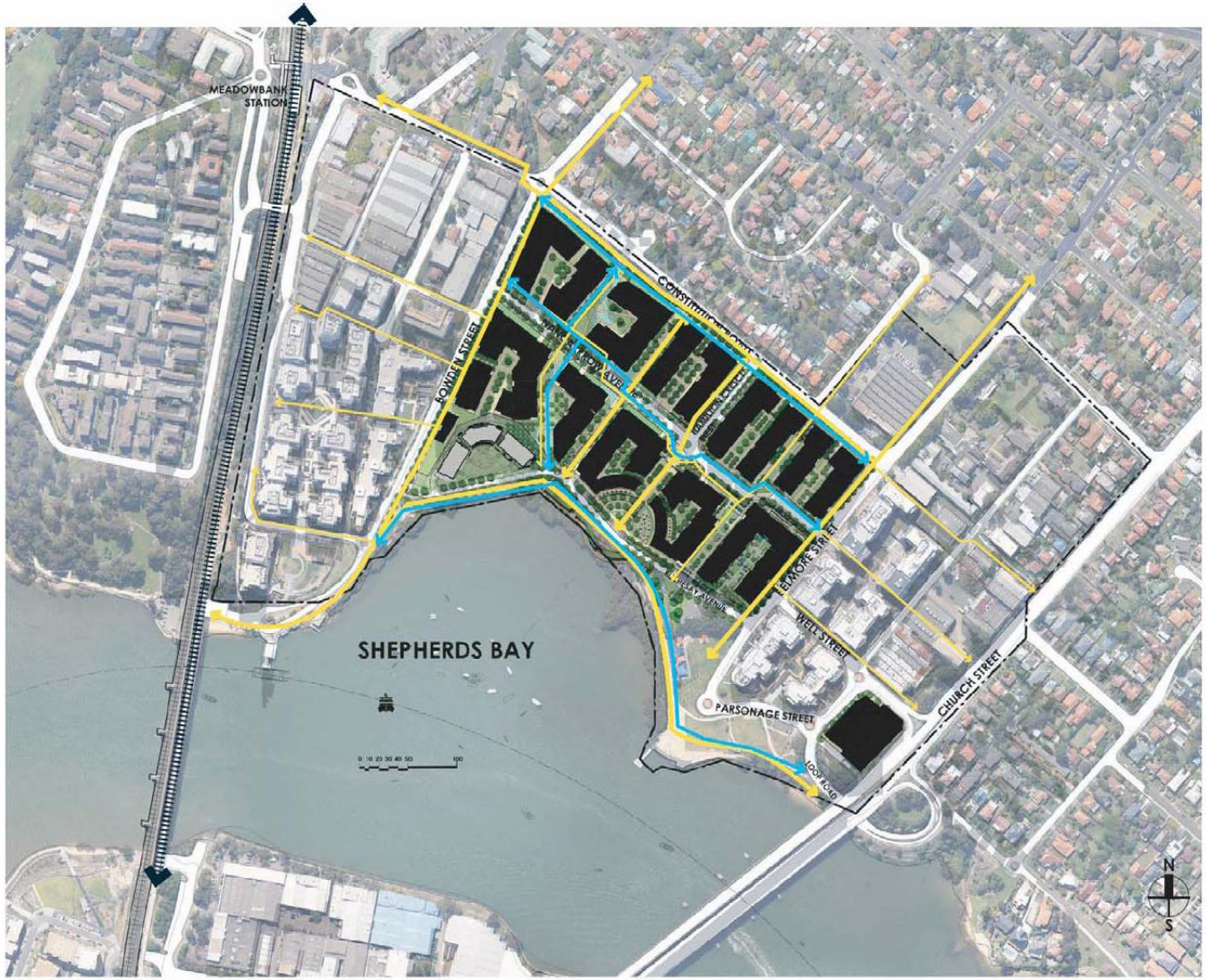


FIGURE 44. PEDESTRIAN AND CYCLE ACCESS PLAN

PEDESTRIAN & BICYCLE NETWORK
FIGURE 4

3. TRAFFIC & TRANSPORT ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the school by the Roads and Traffic Authority is illustrated on Figure 5.

Church Street is classified by the RTA as a *State Road* and provides the key north-south road link in the area. It typically comprises 6 traffic lanes (ie. 3 lanes in each direction), with opposing traffic flows separated by a central concrete median island.

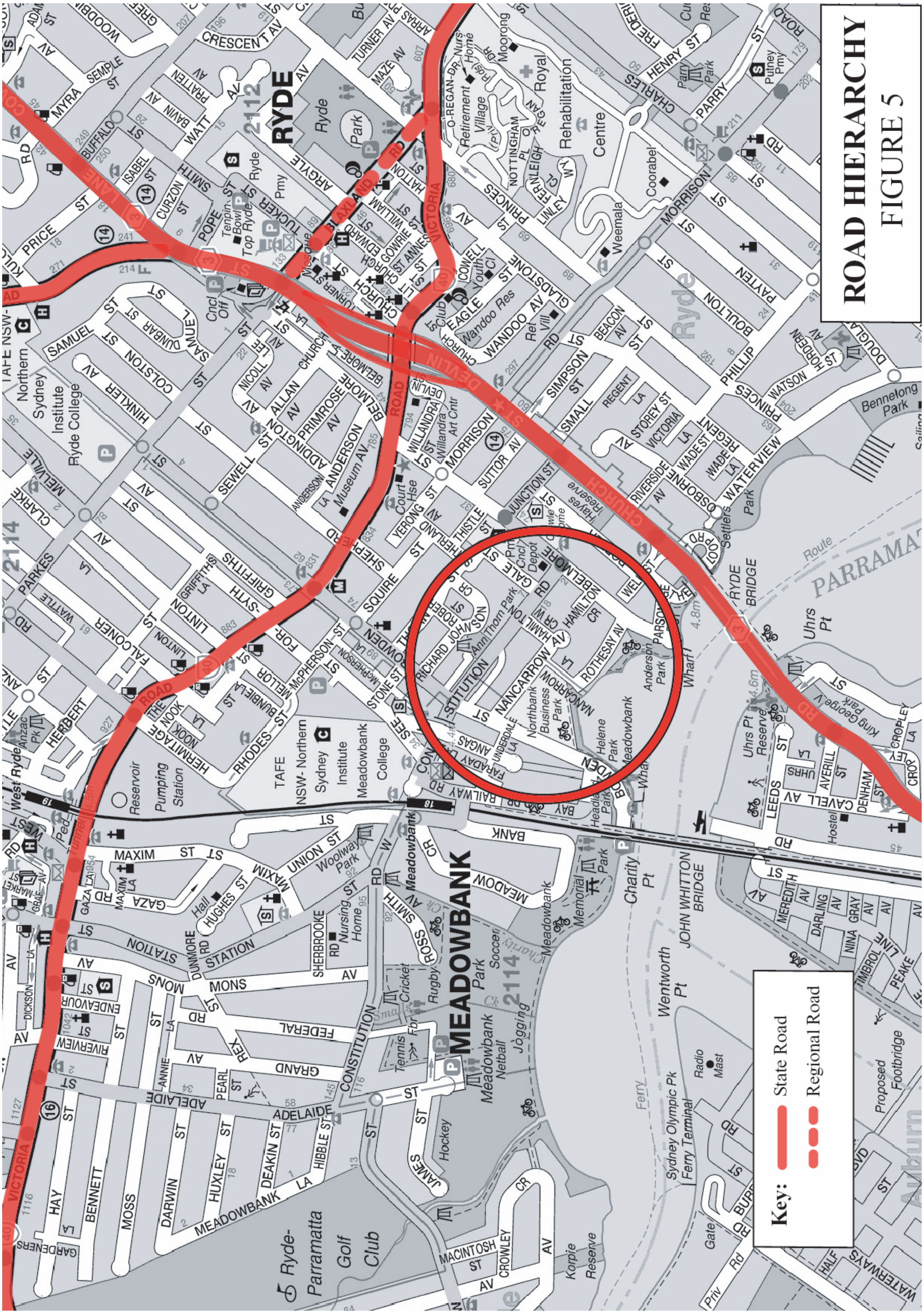
Victoria Road is also classified by the RTA as a *State Road* and provides the key east-west road link in the area. It typically comprises 6 traffic lanes, with opposing traffic flows separated by a central concrete median island.

Junction Street, Belmore Street and Constitution Road form part of a *collector route* which generally follows an east-west alignment. It generally carries 1 traffic lane in each direction, with kerbside parking permitted at selected locations only.

Existing Traffic Controls

The existing traffic controls which apply to the road network in the vicinity of the site are:

- a 70 km/h SPEED LIMIT on Church Street
- a 60 km/h SPEED LIMIT in Victoria Road
- a 50 km/h SPEED LIMIT on all other local roads in the area
- TRAFFIC SIGNALS in Church Street at its intersection with Junction Street and with Morrison Road
- TRAFFIC SIGNALS in Belmore Street at its intersection with Constitution Road and with Junction Street


ROAD HIERARCHY
FIGURE 5
Key:
State Road
Regional Road
RYDE
MEADOWBANK

- CENTRAL MEDIAN ISLANDS in Church Street and in Victoria Road which preclude right-turn movements except at key traffic signal controlled intersections

- a ROUNDABOUT in Constitution Road at its intersection with Bowden Street

- ROUNDABOUTS in Porter Street where it intersects with Parsonage Street and with Well Street.

Existing Traffic Volumes

An indication of the existing traffic volume using the road network in and around the Shepherds Bay precinct is provided by detailed peak period traffic surveys undertaken as part of this traffic study. The traffic surveys were conducted during the morning and afternoon peak periods on Thursday, 24 June 2010. The results of the traffic surveys are summarised on Figure 6 and reveal that:

- two-way traffic flows in Church Street are generally in the order of 6,200 vehicles per hour (vph) during commuter peak periods

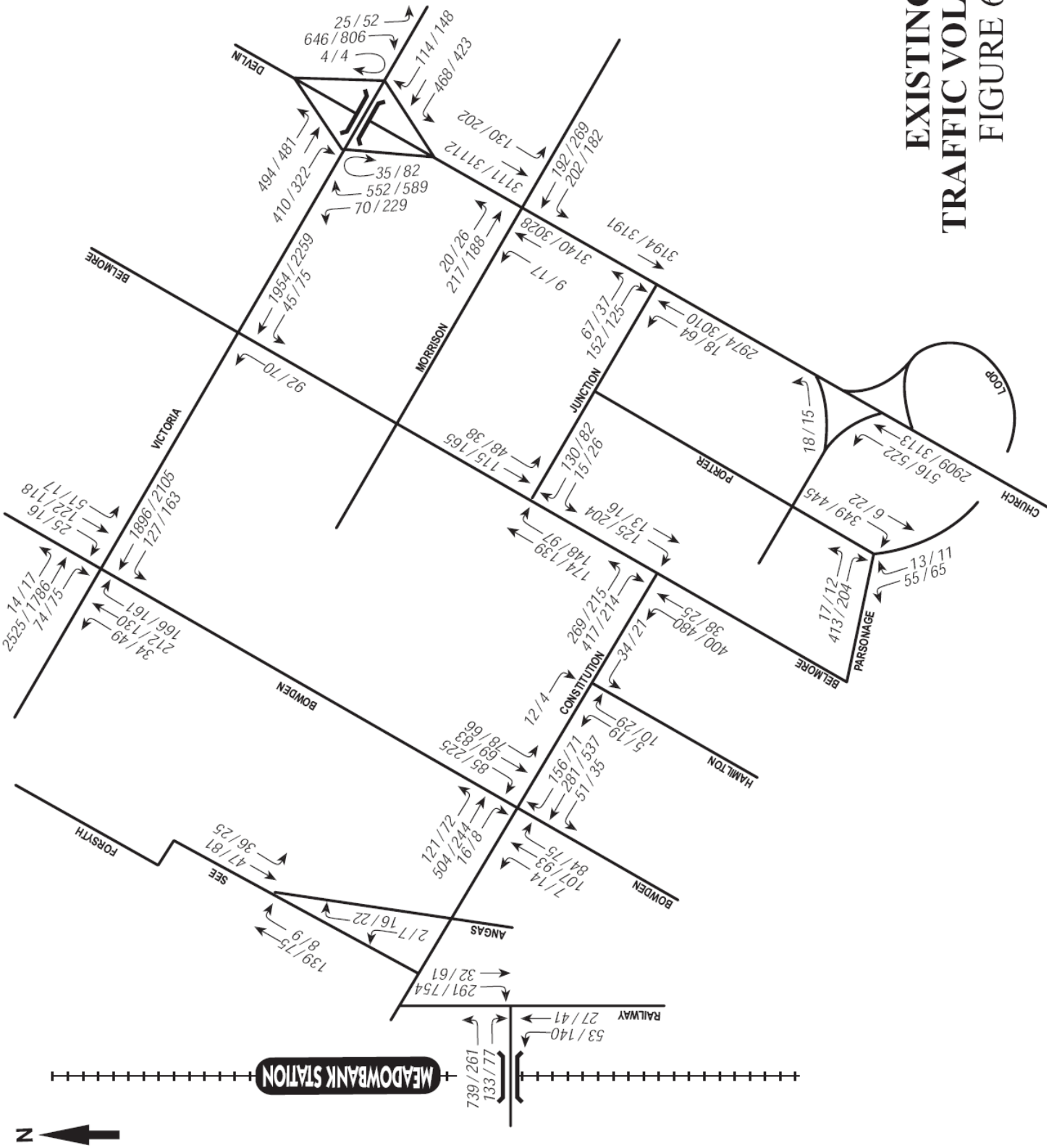
- two-way traffic flows on Victoria Road are typically in the order of 4,500 vph during commuter peak periods

- two-way traffic flows on Constitution Road are somewhat lower, typically in the order of 1,100 vph during peak periods

- traffic flows on Belmore Road, south of Constitution Road, are typically in the order of 800 vph during peak periods, and

- two-way traffic flows across the railway overbridge at Meadowbank Station are in the order of 1,200 vph (two-way) during peak periods.

EXISTING TRAFFIC VOLUMES
FIGURE 6



Projected Traffic Generation

As noted in the foregoing, the proposed development is not expected to significantly increase the volume of traffic generated by the precinct, although there will be some changes in the *direction* of traffic flows. For example, traffic *approaching* the industrial premises during the AM peak is expected to be *replaced* by traffic *departing* the proposed dwellings during the AM peak period, and vice-versa in the PM peak period.

It is also pertinent to note that a number of the industrial premises are underutilised at present, such that the cumulative traffic generation potential of the existing precinct has been reduced as those industrial premises were vacated. A recent survey found that approximately 42,700m^2, or 59.2% of total floor area is currently occupied.

Based on the traffic generation rates nominated in the RTA *Guidelines* the proposed Shepherds Bay Urban Renewal Project is expected to result in an increase in the traffic generation potential of the precinct of approximately 150 vph, as set out in the table below. Taking into account the current vacancy factor, the potential increase in the traffic generation potential of the precinct is in the order of 440 vph during peak periods, as set out in the table below:

Shepherds Bay Precinct Projected *Nett Increase* in Traffic Generation Potential Based on RTA Guidelines		
	If Industrial Was Fully Occupied	**With Current Vacancy factor**
Proposed Residential Uses	870 vph	870 vph
Less Existing Industrial Uses	-720 vph	-427 vph
	+150 vph	**+443 vph**

Those projected increases in traffic flows are relatively minor, particularly when it is considered in the context of the existing traffic flows of some 11,000 vehicles per hour on the adjacent road network (ie. on Church Street and Victoria Road). In addition, it should also be noted that the increased or additional traffic flows will be dispersed over a number of different routes which form part of the road network serving the local area.

Traffic Modelling

Road network modelling of the Shepherds Bay Urban Renewal Project has been undertaken by *Road Delay Solutions Pty Ltd* for the horizon years 2016 and 2026, as well as the "base" 2010 year.

The traffic modelling incorporates Department of Planning population and employment forecasts as well as all known planned and programmed State infrastructure projects in the Sydney metropolitan area, as at the end of 2009.

The proposed Shepherds Bay Urban Renewal Project is located within the Department of Transports TPDC model as part of Zone 485 in the Sydney metropolitan area.

For the purposes of this assessment, the network model assumed that the residential redevelopment of Shepherds Bay will be completed by 2016, although in practice it is anticipated that some developments will not occur until after 2016.

The network traffic modelling provides detailed traffic volume projections for each of the key intersections located in and around the Shepherds Bay precinct which is being analysed using the SIDRA capacity analysis program.

The results of the network and intersection traffic modelling (see Table 3.1) indicate that, upon "completion" of the residential developments in the Shepherds Bay precinct in 2016, the intersections located in and around the Shepherds Bay precinct will continue to operate satisfactorily, with only minor increases in total average vehicle delays. In particular, the modelling indicates that:

- the improvements works proposed in Constitution Road as part of the development proposal will satisfactorily accommodate projected future traffic volumes expected to be generated by the Urban Renewal Project

- the proposed configuration of the Constitution Road/Bowden Street intersection (ie. with Constitution Road widened locally to provide 4 lanes at Bowden Street) will operate satisfactorily during commuter peak periods

- there will not be any improvements required at the railway overpass south of Meadowbank railway station

- there will not be any road improvements required in Belmore Street, and

- in the longer term, some improvements may be required at the Parsonage Street/Porter Street intersections (both currently controlled by roundabouts) to accommodate the projected growth in *through-traffic* volumes traversing the precinct in 2026

- the growth in *through traffic* volumes traversing the precinct in 2026 westbound in Morrison Road turning right into Belmore Road then left into Victoria Road will result in increased delays during the PM peak.

Whilst the growth in *through traffic* volumes in 2026 is not directly attributable to the Urban Renewal Project, consideration could be given to implementing traffic calming measures to discourage the growth in *through traffic* volumes.

TABLE 3.1 - RESULTS OF SIDRA ANALYSIS

	2010 Existing		2016 Base		2016 Proposed		2026 Base		2026 Proposed	
	AM	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Church Street and Morrison Road										
LOS	B	B	B	D	B	D	D	C	E	D
Church Street and Junction Street										
LOS	B	B	B	B	B	B	B	B	B	B
Church Street and Well Street										
LOS	A	A	A	A	A	A	A	A	A	A
Victoria Road and Belmore Street										
LOS	A	A	A	A	A	A	A	F	A	F
Belmore Street and Junction Street										
LOS	C	C	B	B	B	B	C	C	C	C
Porter Street and Loop Street And Parsonage Street										
LOS	A	A	A	A	B	B	F	F	F	F
Belmore Street and Constitution Road										
LOS	C	C	C	C	C	C	C	C	C	C
Constitution Road and Hamilton Crescent										
LOS	A	A	A	A	A	A	B	C	D	C
Constitution Road and Bowden Street										
LOS	A	A	A	A	A	A	A	A	A	A
Victoria Road and Bowden Street										
LOS	C	C	C	B	C	B	C	B	C	C
Railway Road and Bank Street										
LOS	A	A	A	A	A	A	F	F	F	F

Conclusion – Traffic Analysis

The foregoing assessment has found that:

- the road improvements proposed in Constitution Road will satisfactorily accommodate the needs of the proposed development

- the potential growth in *through traffic* volumes by 2026 may warrant the implementation of *traffic calming measures* to ameliorate the effects of that growth in *through traffic* activity

- the cumulative development potential of the proposed development will not have any unacceptable traffic implications in terms of road network capacity, and

- the proposed development will not have any adverse impacts on the performance of nearby intersections, and will *not* require upgrading or road improvement works, other than those proposed in Constitution Road.

Criteria for Interpreting Results of SIDRA Analysis

1. Level of Service (LOS)

LOS	Traffic Signals and Roundabouts	Give Way and Stop Signs
'A'	Good operation.	Good operation.
'B'	Good with acceptable delays and spare capacity.	Acceptable delays and spare capacity.
'C'	Satisfactory.	Satisfactory but accident study required.
'D'	Operating near capacity.	Near capacity and accident study required.
'E'	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode.	At capacity and requires other control mode.
'F'	Unsatisfactory and requires additional capacity.	Unsatisfactory and requires other control mode.

2. Average Vehicle Delay (AVD)

The AVD provides a measure of the operational performance of an intersection as indicated on the table below which relates AVD to LOS. The AVD=s listed in the table should be taken as a guide only as longer delays could be tolerated in some locations (ie inner city conditions) and on some roads (ie minor side street intersecting with a major arterial route).

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way and Stop Signs
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	Operating near capacity.	Near capacity and accident study required.
E	57 to 70	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode.	At capacity and requires other control mode.

3. Degree of Saturation (DS)

The DS is another measure of the operational performance of individual intersections.

For intersections controlled by traffic signals[1] both queue length and delay increase rapidly as DS approaches 1, and it is usual to attempt to keep DS to less than 0.9. Values of DS in the order of 0.7 generally represent satisfactory intersection operation. When DS exceeds 0.9 queues can be anticipated.

For intersections controlled by a roundabout or GIVE WAY or STOP signs, satisfactory intersection operation is indicated by a DS of 0.8 or less.

[1] *The values of DS for intersections under traffic signal control are only valid for cycle length of 120 secs.*

4. PARKING IMPLICATIONS

The off-street parking requirements applicable to development proposals within the Meadowbank Employment Area are specified in Council's Development Control Plan in the following terms:

Residential

- For Residential Flat Buildings (RBF) within 400m of Meadowbank Station:

One bedroom dwelling	1 space/dwelling
Two bedroom dwelling	1.2 spaces/dwelling
Three bedroom dwelling	1.5 spaces/dwelling
Visitors	1 space/4 dwellings

- For other residential flat buildings:

One bedroom dwelling	1 space/dwelling
Two bedroom dwelling	1.4 spaces/dwelling
Three bedroom dwelling	1.6 spaces/dwelling
Visitors	1 space/4 dwellings

Another indication of the off-street parking rates which could be applied to the proposed development is provided by the Roads and Traffic Authority's publication *Guide to Traffic Generating Developments, Section 5 – Parking Requirements for Specific Land Uses (October 2002).*

The RTA *Guidelines* are based on extensive surveys of a wide range of land uses and nominates the following off-street parking requirements:

High Density Residential Flat Buildings (Metropolitan Sub-Regional Centres)

1 bedroom unit:	0.6 spaces per dwelling
2 bedroom unit:	0.9 spaces per dwelling
3 bedroom unit:	1.4 spaces per dwelling
Visitors:	1.0 space per 5 dwellings

The proposed development makes provision for off-street carparking facilities to be provided generally in accordance with the parking rates nominated in Council's DCP, although it is noted that in some instances part of the visitor parking component may be accommodated using on-street kerbside parking where appropriate.

In summary, the off-street parking proposed to be incorporated in the development proposal are generally in accordance with the rates nominated in Council's DCP and in the RTA Guidelines, with some reliance on on-street carparking where appropriate. Those carparking provisions take into account the proximity of the site to a variety of public transport services, most notably Meadowbank Railway Station, and are considered appropriate in this instance.

5. TRANSPORT PLANNING

The proposed Urban Renewal Project is fortunate to be located in an area where a variety of alternate transport options are available such as train, bus, cycling and walking, as detailed below.

Train Services

Meadowbank Railway Station is located near the corner of Railway Road and Constitution Road, approximately 500m from the "mid-point" of the subject site. The railway station is approximately 6 to 8 minutes walk from the subject site.

The railway station is located on the Northern Line, approximately mid-way between Strathfield and Hornsby Stations. The Northern Line operates on a loop comprising Hornsby, the City Circle and Strathfield, via the new Epping-Chatswood rail link.

Weekday train services operate every 15 minutes during weekday commuter peak periods, and every 30 minutes outside peak periods. Weekend services also operate every 30 minutes.

Meadowbank Railway Station is located four stops south of Epping Station, a major bus rail interchange with connecting rail services to the City via Macquarie University, Chatswood and North Sydney, and connecting bus services to the Hills District.

To the south Meadowbank Railway Station is located four stops from Strathfield Station, a major bus rail interchange with connections to the North Shore and Western Line, the South Line (to Campbelltown), the Inner West Line between the City Circle and Liverpool, as well as most intercity rail services (ie. to Newcastle, Lithgow and Southern Highlands).

Bus Services

Bus services through the Meadowbank area are operated by *Sydney Buses.* Route maps are reproduced in Appendix B and summarised below:

Route No.	Nearest Bus Stop	Operating Between
507	Constitution Rd	Meadowbank Station to Sydney CBD & Macquarie University
513	Bowden St	Meadowbank Wharf to Carlingford Court
533	Church St	Chatswood to Olympic Park
458	Church St	Burwood Station to Top Ryde
459	Church St	Strathfield Station to Macquarie University
534	Victoria Rd	West Ryde Station to Chatswood Station
520	Victoria Rd	Parramatta Station to Sydney CBD
524	Victoria Rd	Parramatta Station to Top Ryde

Most weekday services operate every 30 minutes, with additional services during commuter peak periods. Most weekend services generally operate every 60 minutes. Bus stops are located at regular intervals along both sides of Bowden Street and Constitution Road, as well as along Church Street and Victoria Road.

An extract from Sydney Buses' Public Transport Guide illustrating the bus routes in the vicinity of the site is shown on Figure 7.

Bicycle and Pedestrian Routes

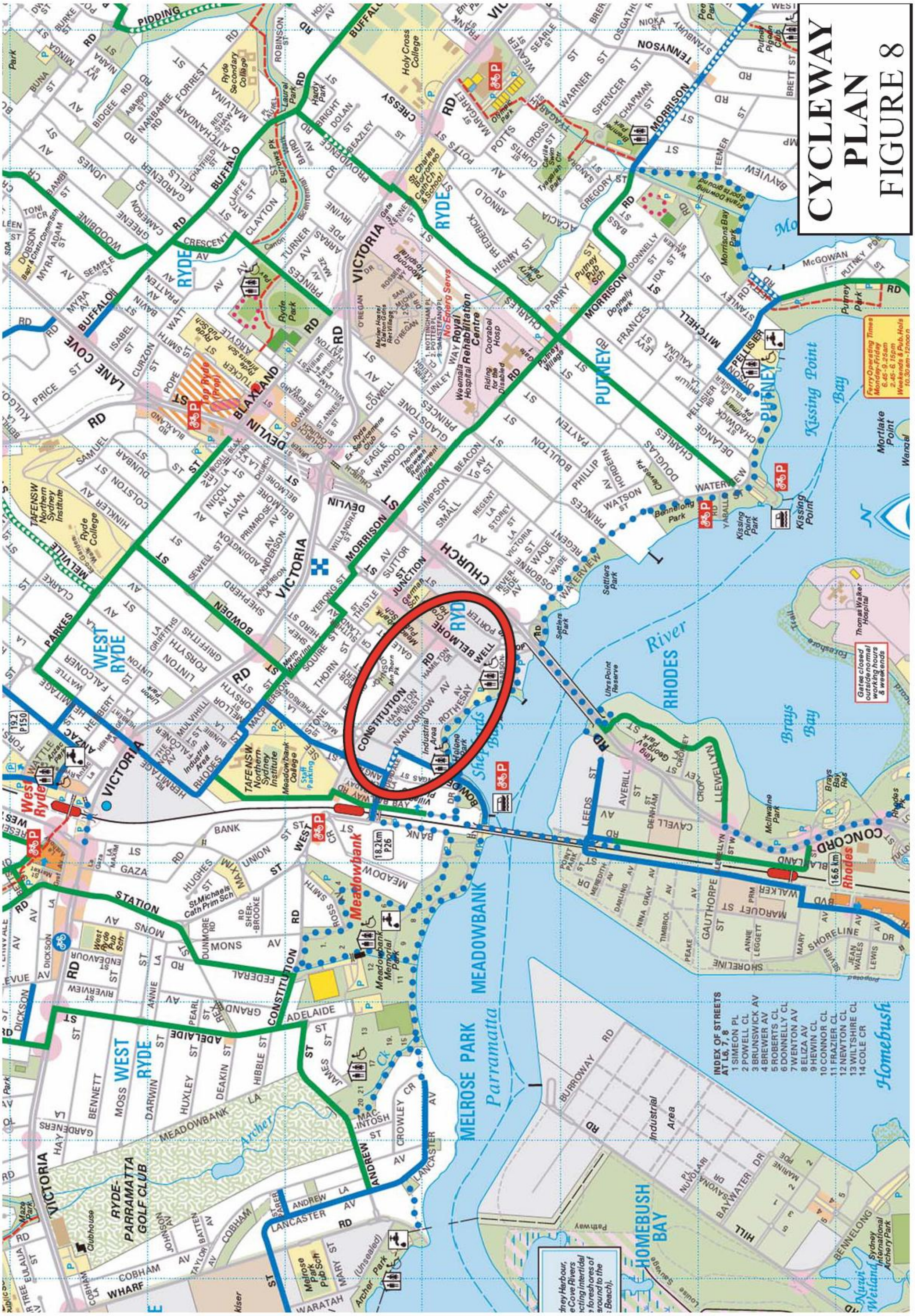
There are a number of cycleways and shared pedestrian paths providing convenient access to and from the proposed Urban Renewal Project at Meadowbank for those residents who do not wish to drive or use public transport. Studies have shown that in Sydney, over 50% of trips are less than 5km; such trips are ideally suited to walking or cycling.

The nearby shared off-road pedestrian and cycleway path which is located along the foreshore continues towards the west to Parramatta and towards the east to the City, using a combination of on and off-road cycleways and pedestrian paths.

An on-road cycleway connects with the foreshore shared pedestrian and cycleway path and follows a generally north-south alignment along Bowden Street and Angus Street to connect with West Ryde Railway Station and other on-road cycleways which extend further to the north. A shared pedestrian and cycleway path also extends southward across Ryde Bridge to the Rhodes peninsula where it connects to other on and off-road cycleways that extend to the south to Concord and Olympic Park.

An extract from Council's Bike Map illustrating the shared cycle paths and cycle routes located in the vicinity of the site is illustrated on Figure 8.

BUS ROUTES
FIGURE 7



CYCLEWAY PLAN FIGURE 8

The proposed development will enhance the options available to residents for walking and cycling through the provision of 3 new east-west cycle links between Bowden Street and Belmore Road. The improved permeability for pedestrians and cyclists that will be provided by these links will provide more direct links for residents when walking or cycling to nearby facilities such as the local primary school, TAFE College, local shops and railway station.

Improved pedestrian links will be provided along all east-west and north-south road links, with additional mid-block pedestrian links to be provided generally following a north-south alignment. The improved pedestrian links will significantly enhance the accessibility of public transport services for residents wishing to walk to the station or to bus stops located in Constitution Road, Bowden Street, Victoria Road, Belmore Street or Church Street.

Metropolitan Transport Plan - Connecting the City of Cities

The *Metropolitan Transport Plan - Connecting the City of Cities* sets out a 25 year vision for transport and landuse planning in the Sydney metropolitan area. The plan seeks the introduction of measures to promote and encourage mixed use and appropriate higher intensity uses within walking distance of public transport infrastructure, such as Meadowbank Railway Station and Meadowbank Ferry Wharf. The plan sets out a 10-year fully funded package of transport infrastructure improvements which include a number of measures that will increase the capacity of public transport services available to Meadowbank residents, as follows:

- provision of a dedicated freight rail route through Sydney, including the Northern Sydney Freight Line, with associated benefits for the passenger rail system. These benefits are expected to include a potential increase in the number of passenger rail services that could be provided on the main Northern Line

- construction of the North West Rail Link which will increase the public transport options available to the residents of Meadowbank.

In addition, it is understood that the State Government, in conjunction with the Federal Government, has announced that funding has been allocated to enable the western section of the Parramatta-Chatswood Rail Link to proceed. This project will also improve the public transport options available for the residents of Meadowbank.

NSW State Plan

The *NSW State Plan* identifies a number of transport planning initiatives including the upgrading the M2 Motorway, and improvements to the public transport system such as the Northern Sydney Freight Line which will ultimately allow for increased capacity and reliability of train services on the main Northern Line (ie. the City Rail passenger service), serving suburbs such as Meadowbank.

Planning Guidelines for Walking and Cycling

The *Planning Guidelines for Walking and Cycling* identify a number of city-scale design principles that can assist the creation of walkable and cyclable cities and neighbourhoods. These principles emphasise urban renewal and the creation of compact, mixed use, accessible centres around public transport stops. At the neighbourhood scale, design principles can be reinforced through the creation of local and accessible centres and neighbourhoods with connected street patterns and road design which aim to reinforce local walking and cycling networks.

In particular, the guidelines note that increased population density is an important element in creating a walkable and cyclable city. A compact development brings activities close together, making them more accessible by foot or by bicycle, without the need to use a car. Increased population density also enhances the viability of public transport services.

The Shepherds Bay Renewal Project is consistent with those objectives in that it seeks to provide increased population density in close proximity to existing public transport services which are accessible by walking or cycling. In addition, the provision of a number of new internal road links will improve the permeability of the neighbourhood for pedestrians and cyclists.

The Urban Renewal Project provides a number of opportunities to provide improved connections for walking and cycling using both the existing and proposed new road links to connect the existing shared pedestrian path and cycleway along the foreshore to the south of the site with the schools, shops and public transport services located to the north and west of the site.

Integrated Land Use and Transport Policy

The *Integrated Land Use and Transport Policy* encourages increased housing densities within an acceptable walking distance – ie; 400 to 1,000m, of major public transport modes such as railway stations and high frequency bus routes, to help moderate the demand for private car travel and to reduce the growth of VKT (Vehicle Kilometres Travelled).

The proposed development is consistent with those objectives in that it will result in increased population densities in an area which already has good access to public transport services as well as options for walking and cycling.

NSW Bike Plan

The *NSW Bike Plan* promotes cycling-friendly development decisions and notes that cycling is strongly influenced by the shape of our neighbourhoods. It encourages cycling-friendly developments concentrated in existing centres. Planning ahead to locate residential areas, community activities (such as schools, shops and services) close together, and next to cycleways, makes it more likely that a bicycle will be used to travel from one to the other.

The Urban Renewal Project is ideally placed in this regard in that it is located immediately adjacent to an established shared pedestrian/bicycle path along the foreshore, and is located approximately 500m from Meadowbank Railway Station, shops and services such as the post office and the like. Careful planning of the proposed development will enable the Urban Renewal Project to further capitalise on its location by providing improved permeability through the neighbourhood, as well as improved pedestrian and bicycle pathways along the existing roads located within the neighbourhood.

Implementation of a Location Specific Sustainable Travel Plan

The proposed development provides the opportunity to provide a site specific sustainable travel plan which seeks to reduce dependence on private car travel. Key features of the sustainable travel plan could include (but are not limited to):

1. Establish high quality and efficient pedestrian and cycle links to existing routes to encourage travel by these modes

2. incorporate fibre/internet to the home for premises in an early state
3. community education to support public transport initiatives
4. provide a “How to Find Us” website facility with links to bus and train timetables etc
5. provide a “Handover Pack” to all new residents that identifies existing walking, cycling and public transport options available

6. CONCLUSION

This Transport and Accessibility Study has been prepared for *Robertson & Marks Architects Pty Ltd* to accompany a Concept Plan application to the Department of Planning for the proposed Shepherds Bay Urban Renewal Project which is located in Belmore Road, Constitution Road and Bowden Street, Meadowbank.

The Concept Plan envisages the staged construction of a new and revitalised residential area comprising approximately up to 300 dwellings to replace the existing industrial uses on the site.

The foregoing assessment has found that:

- the site is ideally located in close proximity to a range of walking, cycling and public transport options

- the site is also located in easy walking/cycling distance of a range of shops and services such as the post office, the TAFE College and the local primary schools

- two new road links proposed within the site will improve permeability for pedestrians and cyclists

- the site is also located immediately adjacent to a shared pedestrian and bicycle path with links to Parramatta and the City

- the proposed development will not have any unacceptable traffic implications in terms of road network capacity, and does not generate a need for any upgrades or road improvements, other than the upgrading of Constitution Road

- the parking facilities incorporated in the development proposal will satisfactorily accommodate the needs of the proposed development.