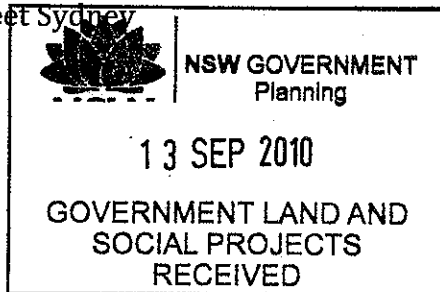


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10 September 2010

BARANGAROO SUBMISSION: LEND LEASE PLAN FOR BARANGAROO SOUTH

I am a long term resident of Sydney and currently completing a Master of Environmental Planning at Macquarie University. In June 2009 I lodged a submission on Barangaroo with the then Minister of Planning Kristina Keneally outside the designated public submission process. A slightly amended copy (to exclude the now defunct CBD Metro) is attached as I consider most of that submission to be still relevant and wish it to be part of this submission that I now lodge under your current process.

I wish to record my support for the Lend Lease Barangaroo South development plan that as far as I can see accords with the attached submission for that part of the Barangaroo site south of the High Street steps.

However my main concern is for the central part of the site that as my submission argues should be devoted to public meeting space and specifically a new Opera House. I am opposed to that part of the site being used as a cove as I think that this is a waste of valuable public meeting and cultural activity space that Sydney sorely needs in the CBD. As I also argue an important cultural use 'externality' is necessary for the central part of the site to put Barangaroo on the international map and ensure that the Barangaroo South development is economically sustainable.

I commend the attached submission (including this covering letter) for your consideration.

Yours sincerely

A handwritten signature in dark ink, appearing to be "A. Fraser".

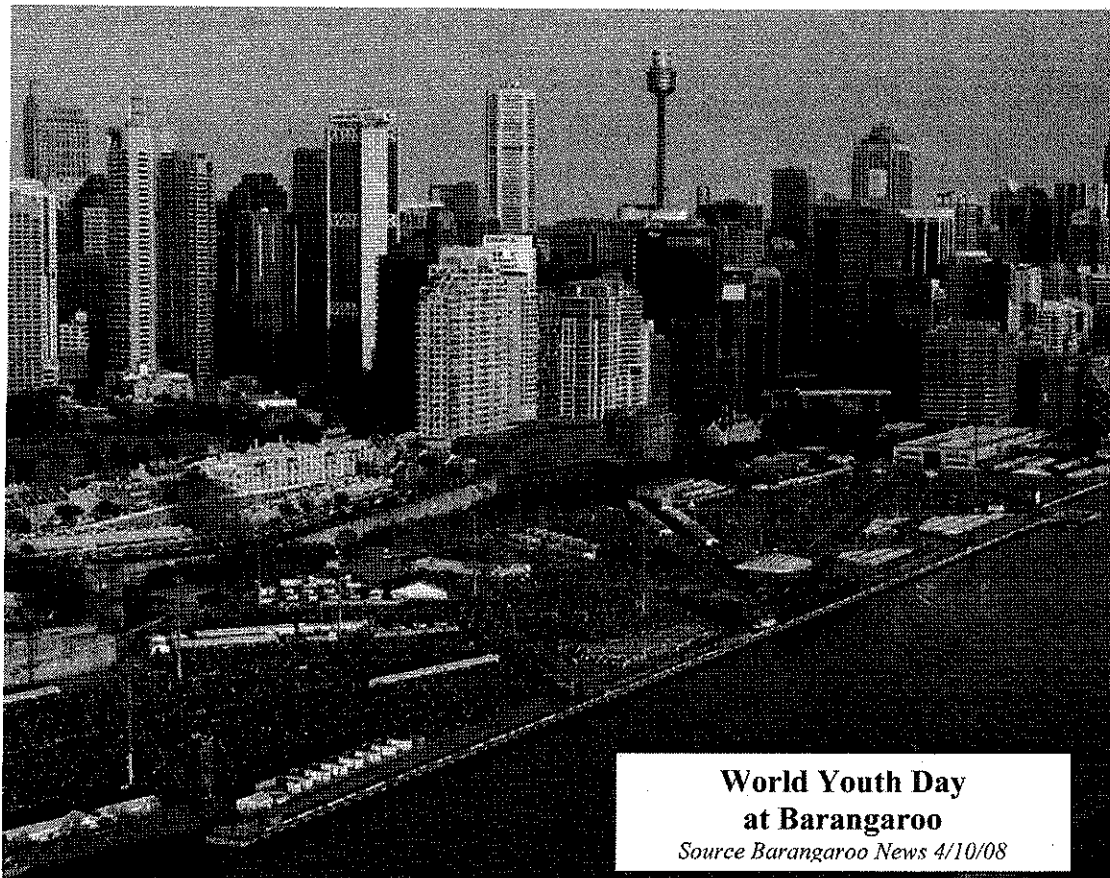
Andrew Fraser
B.Econ.; ANU, Dip. Ed.; Univ of Sydney
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Planning Barangaroo

*A Submission to the NSW Minister of Planning for an
Integrated and Sustainable Environmental Plan for Barangaroo*

by

Andrew Fraser



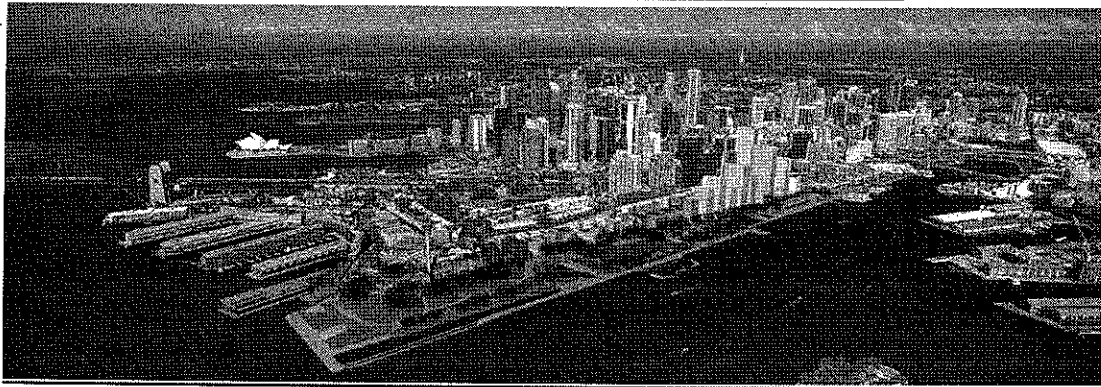
**World Youth Day
at Barangaroo**

Source Barangaroo News 4/10/08

Barangaroo is situated along the western and north- western edges of Sydney's CBD facing the harbour, with the historic Rocks area to the east and the bustling entertainment and business precinct of Darling Harbour to the south (Figure 1). The redevelopment of the Barangaroo site represents a rare opportunity to increase the area of green space in the CBD, create a vibrant cultural precinct and significantly increase the supply of high quality sustainable commercial space.

Figure 1
Barangaroo

Source kingstreetwharf.com.barangaroo



Planning to achieve these aims requires consideration of:

1. The need for and choice of a cultural centrepiece for the site
2. The net economic benefits of the site
3. The site's urban morphology
4. The sustainability of the site's built and open spaces
5. The availability of sustainable transport options
6. Affordable and sustainable housing options close to the site; and
7. The City of Sydney's 2030 vision for the western CBD.

These issues need to be integrated with the *City of Cities* metropolitan plan and relevant environmental planning instruments.

1. The Cultural Centrepiece

In a time of global recession, Barangaroo could provide a significant boost to the NSW economy. But why should international firms choose to situate there or tourists visit it when countries in our region are aggressively competing to attract the same business? High quality office space and water views can be found almost anywhere but without an attraction of global significance, commercial space will stand empty in these trying times. To avoid such an outcome, we need to create a cultural or community heart for Barangaroo that will at the same time enhance the site's economic potential. There has to be a unique centrepiece that will put Barangaroo on the map. To find inspiration for such a centrepiece we need to look no further than the superb Sydney Opera House. While that project was a difficult birth, no one now doubts the outstanding contribution the Opera House has made and will continue to make to the culture and economy of NSW and the nation.

However, while Sydney Opera House looks splendid from the outside, there has been a chorus of complaints ever since it was built that it does not serve the purpose for which it was designed, namely to provide a suitable home for the high art form of opera. The name Sydney Opera House is inappropriate because the largest performing space was given over to the concert hall. Opera was left with a space that was too small to stage grand opera and the lack of economies of scale means that the price of an opera ticket is beyond the reach of many Australians. A new larger space for opera of outstanding design built at Barangaroo would serve a wider audience, provide the cultural heart for the site and act as a magnet for international business. Like the present Opera House, the project could be the subject of an international design competition and be partially financed through a special lottery.

2.Net Economic Benefits

Figure 2.
Barangaroo Concept
Source Barangaroo News 4/10/08

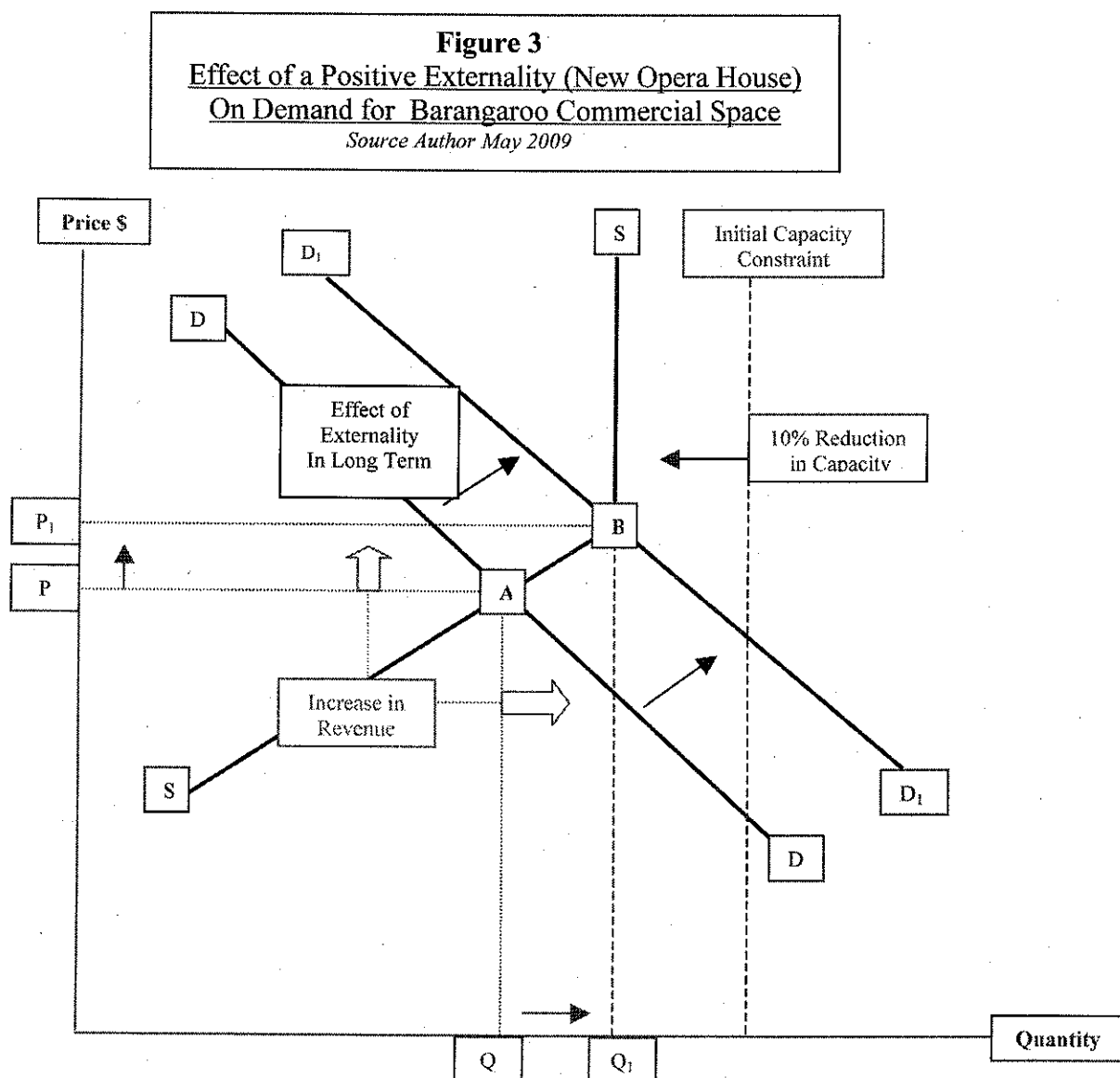


The spot marked X indicates where the proposed new Opera House would be situated. Based on Figure 2, this development together with its surrounding open space curtilage would replace about 10% of proposed commercial space (that is the 2 northernmost building envelopes of commercial space pictured). Green space would be unaffected and instead of the central inlet pictured above, there would be a large public square adjoining the new opera house where cultural events such as World Youth Day could be staged (see Figure 2.1).

With a grand design, construction of a new opera house would be likely to create a greater number of jobs than the construction of the equivalent commercial space. This

public expenditure would have a substantial stimulus effect on the NSW economy in a time of recession. When built, the new opera house and its surrounding precinct would significantly increase the number of jobs in the tourism and entertainment industries.

The economic model shown in Figure 3 indicates that there would be no short-term price or quantity effect from a 10% reduction in available commercial space. This is because the global recession means that the demand for commercial space (DD) will intersect the supply curve (SS) at equilibrium point (A) that is below available capacity, even with the 10% reduction. However in the longer term the positive externalities generated from the prestigious new cultural precinct will cause an upward shift in demand (D_1D_1) which will result in a higher equilibrium price and quantity of commercial space at point B, settling at or near the available space limit (SQ_1).



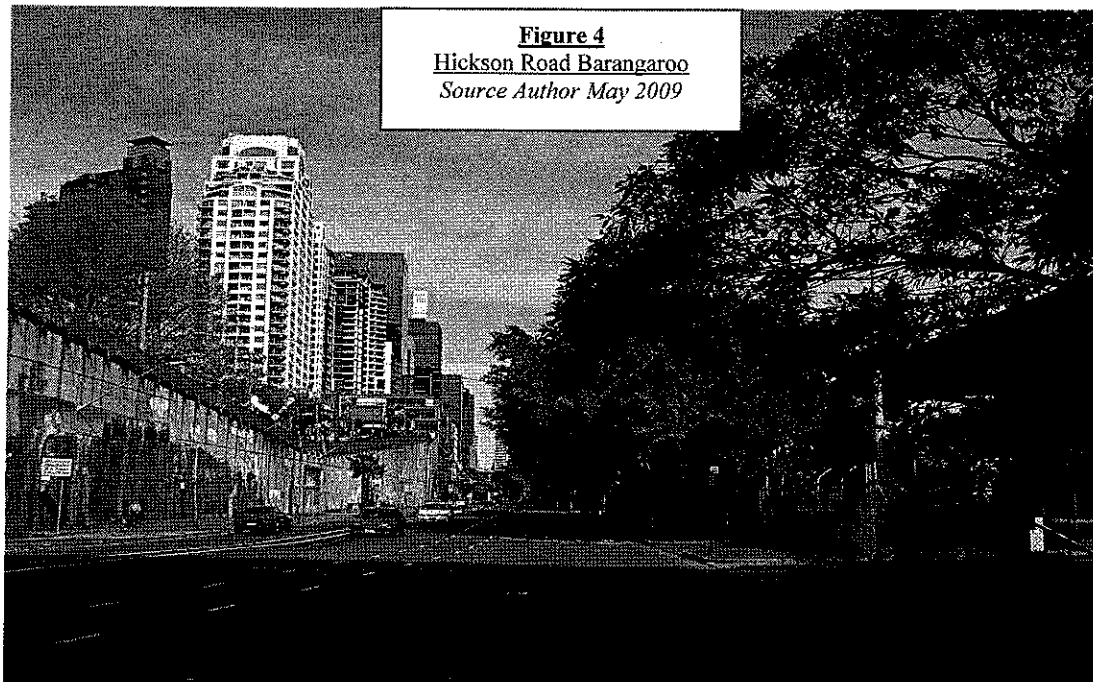
In other words, while the commercial space capacity of Barangaroo will be slightly less with the new cultural precinct, this capacity will be more fully utilised and thus give higher returns to investors over the long term than would be the case without the new opera house.

The fact that the City of Sydney is moving to allow substantially higher buildings at Circular Quay in return for more public space at ground level is relevant. This increase in available office space at this prime location would strengthen the need for a unique externality at Barangaroo so the latter's commercial space can compete.

3. Urban Morphology

Figure 2.1 sketches the cultural precinct proposed for the central part of the Barangaroo site. The northern end of the opera house could adjoin a large public square that could be used for open-air concerts, pageants and cultural events. There are few such spaces in Sydney's CBD and the inclusion of such a square would not only greatly enhance the site for locals but would greatly increase Sydney's capacity to mount large-scale international cultural events. The value of Barangaroo as a venue for such events was proven with the 2008 World Youth Day celebrations

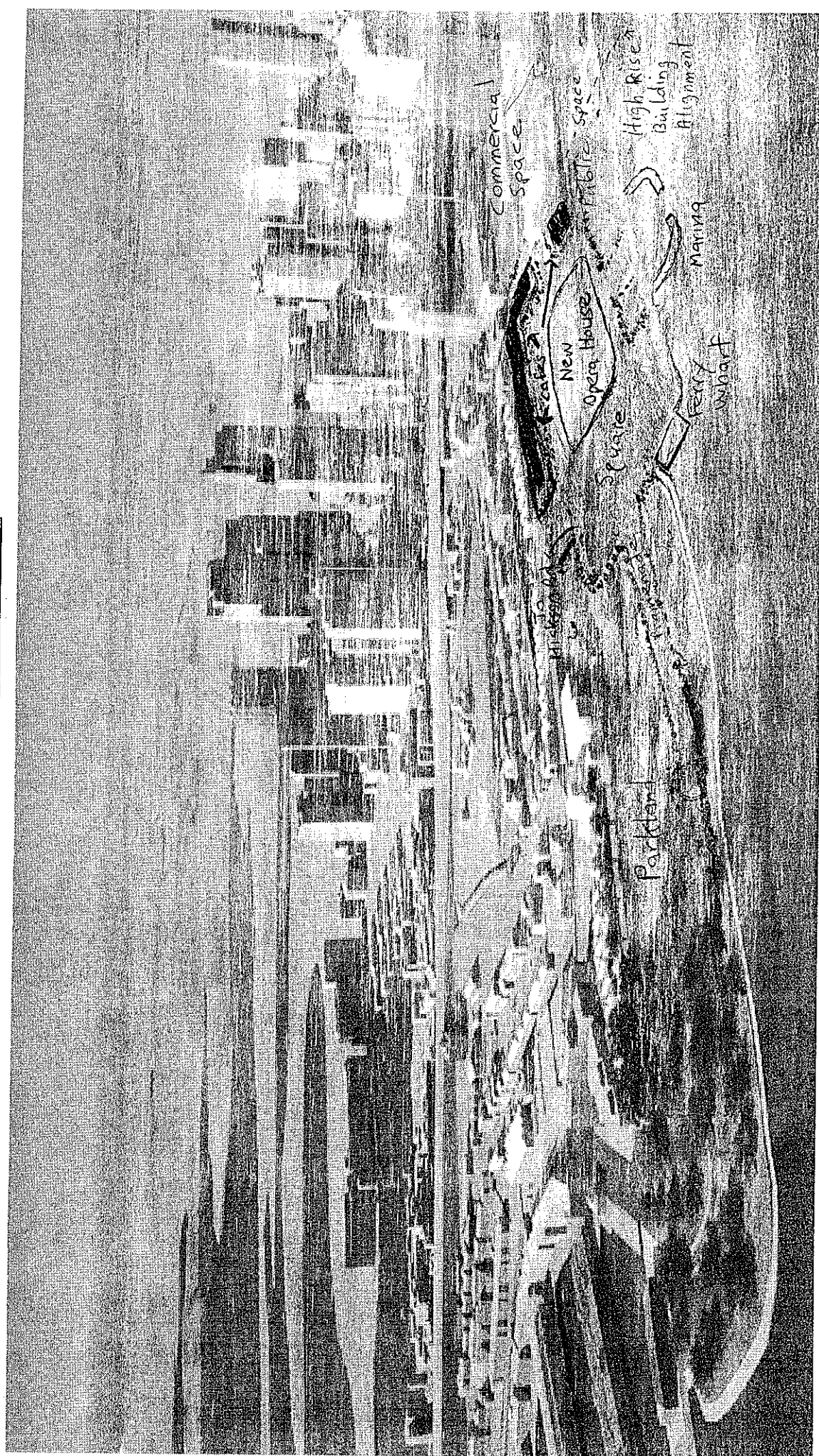
As shown in Figure 2.1 the opera house should be surrounded by sufficient public space curtilage to separate it from the commercial uses to the south. Parts of this public space could be leased out as one-story cafes, restaurants and kiosks symbiotic with the amenity of the central cultural precinct. A clear demarcation line between the central cultural precinct and the commercial uses to the south should occur at a point just south of the High Street steps (the 'High Rise Building Alignment')



The central part of the Barangaroo site (right) lies at the bottom of a ridge adjoining the historic Rocks area. The topography of the central part of the site would allow an opera house of about four or five stories to be built.

The picture below shows the site of the proposed opera house and public square as sketched in Figure 2.1. The proposed cultural precinct comprising a public square,

Figure 2.J
Modified Barangeroo Concept
With New Opera House
(Source; Figure 1 as modified by Author)



opera house and surrounding open space could extend southwards approximately from the nearest lighting pole (Figure 5) to the start of the modern building line at the south end of the site.

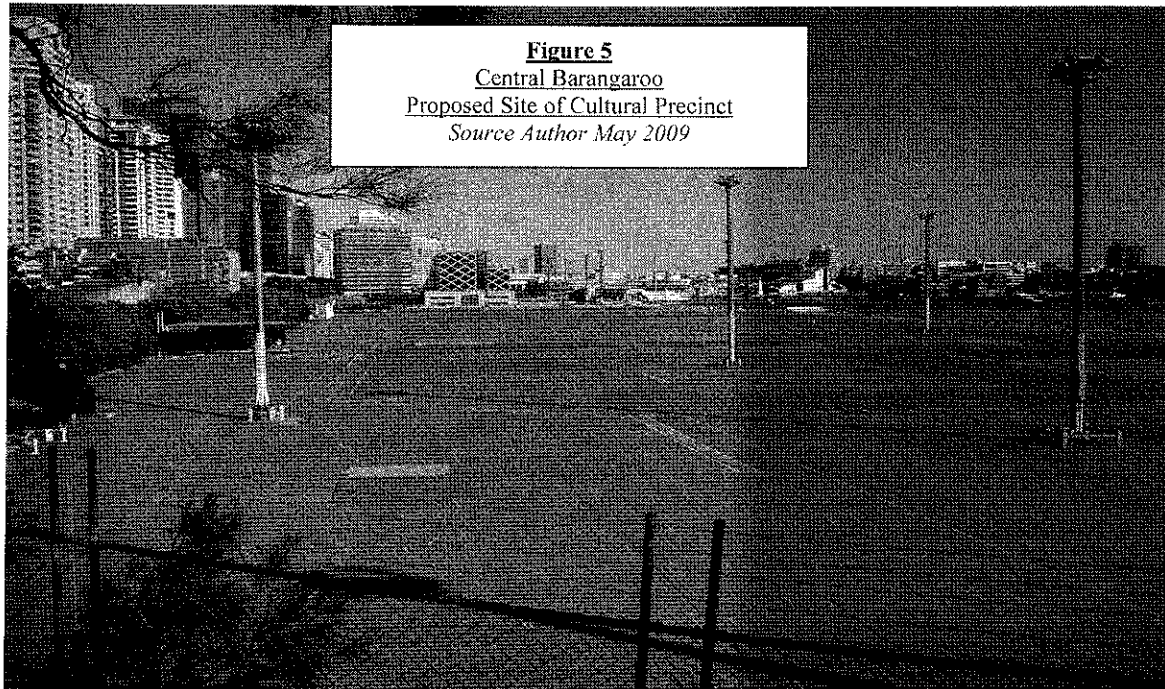


Figure 5
Central Barangaroo
Proposed Site of Cultural Precinct
Source Author May 2009

The High Street steps (pictured below) could mark the southern end of the cultural precinct.



Figure 5.1
High Street Steps
Looking East from
Barangaroo
Source Author May 2009

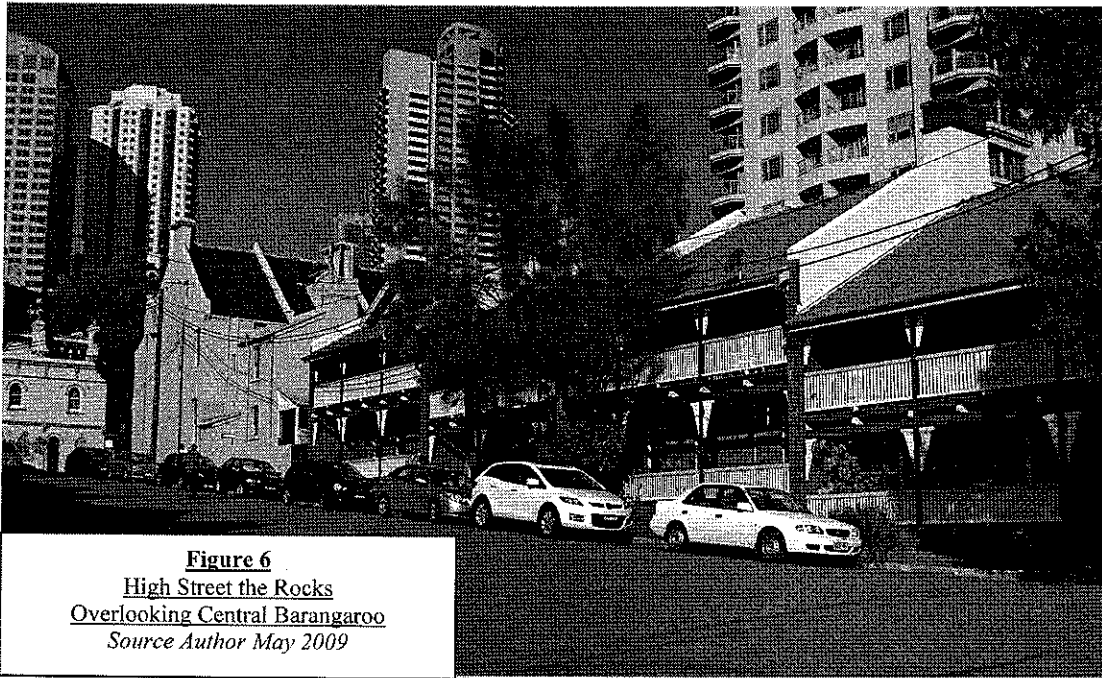


Figure 6
High Street the Rocks
Overlooking Central Barangaroo
Source Author May 2009

The opera house building should be sympathetic with the historic workers cottages, pubs and other structures to be found in the Rocks. For example a simple neo-Georgian sandstone building would be in keeping with the fine early Sydney buildings designed by the convict architect Francis Greenaway (1777-1837).

Figure 7
Barangaroo North
Before Removal of Buildings
Source Wikipedia



Figure 7.1
Barangaroo North
Looking West
Source Author May 2009



The northern end of the Barangaroo site would be taken up with parkland. To differentiate from the Botanic gardens to the east of the CBD, it would be appropriate be vegetate it with Australian native plants. It should be landscaped to create an environment where humans and other species can coexist. Rainwater could be harvested for irrigation and water features.

It may be feasible to create a biodiversity corridor from the Barangaroo park south along the eastern edge Barangaroo, under the north-south leg of the Western

Distributor to Harbour Street and then to a large new park that is planned for the western CBD (see Section 7).



Figure 8
Possible Biodiversity Corridor Under Freeway at Darling Harbour
Source Author May 2009

To the north the Barangaroo Park could be connected with another biodiversity corridor along the wide Hickson Road to Dawes Point Park.

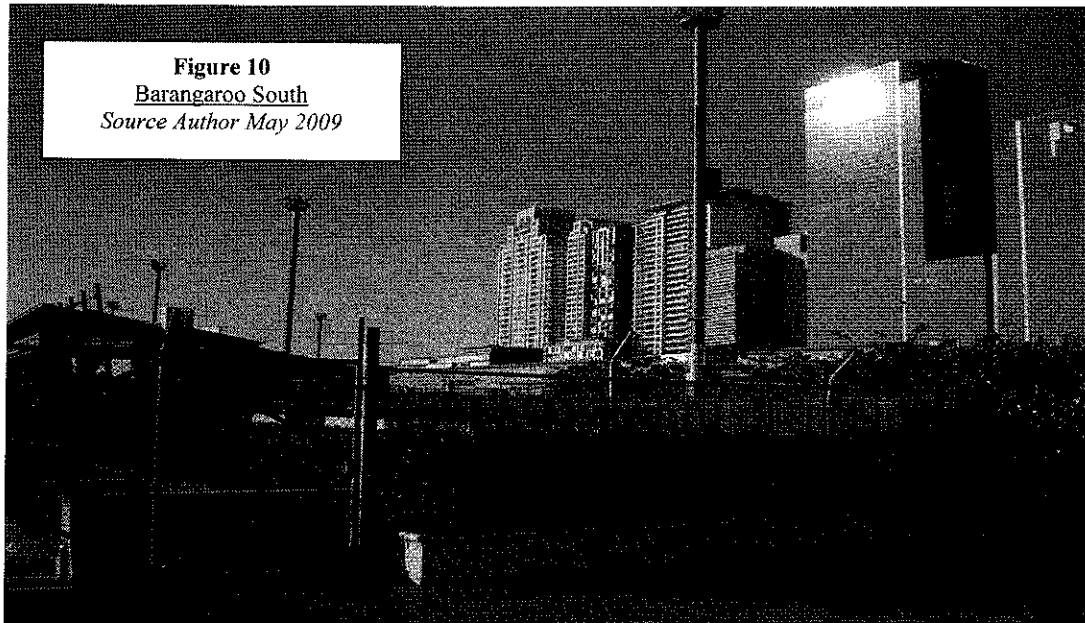
Figure 9
Sydney Theatre
Hickson Road North
Source Author May 2009



Figure 9.1
Looking Northeast to
Sydney Theatre
Source Author May 2009

Along Hickson road to the northeast, Barangaroo is close to the Sydney and Wharf theatres, which, apart from putting on plays, host major cultural events such as the Sydney Writers Festival. This theatre precinct could be linked to Barangaroo via a promenade lined with trees and outdoor sculptures by Australian artists that could

proceed west along the harbour side of Hickson Road through Barangaroo to the new opera house.



The southern end of Barangaroo is to be taken up with commercial space along the southeastern edge of the site to connect with the commercial development on the other side of Hickson Road. The southwestern edge of the site could contain small restful public spaces where workers and city residents can relax and eat lunch.



The cruise ship terminal at the southern end of Barangaroo does not enhance the amenity of the proposed new development. It is a secure, customs- controlled space that takes up a large area that could be used for more high value commercial and

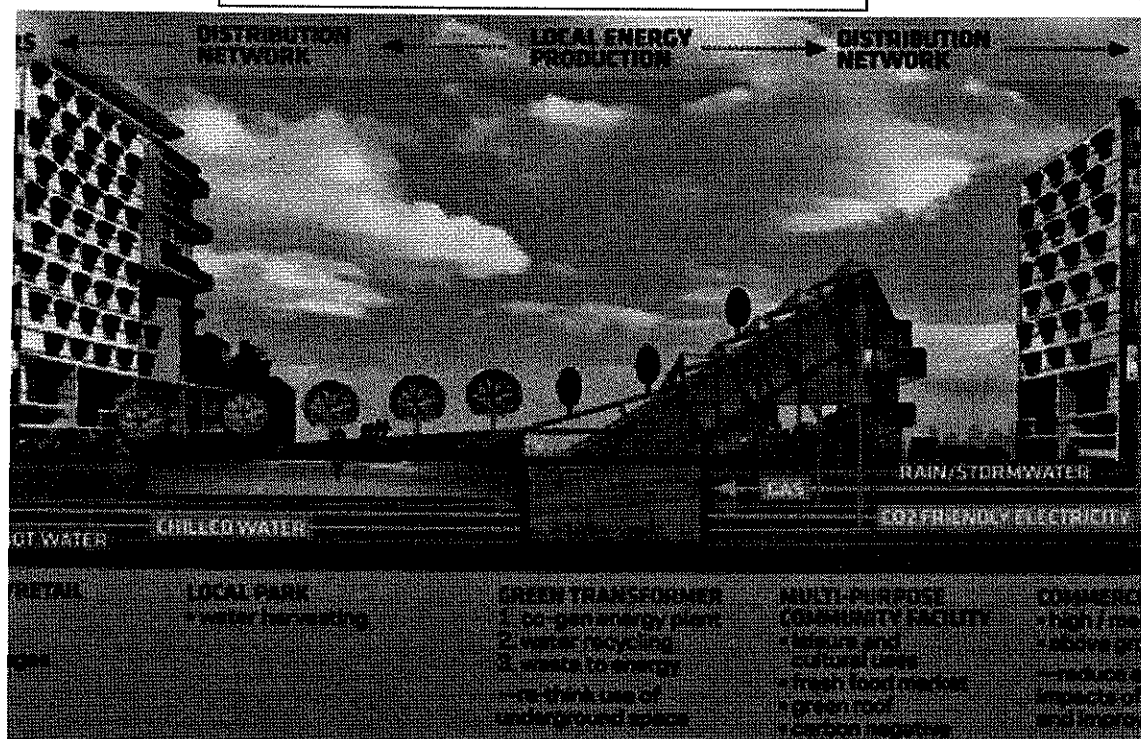
public space purposes. The recent Swine Flu scare on a cruise ship at Wharf 8 shows the need to isolate port facilities from the population at large. It would be appropriate to relocate the terminal further west with other port facilities where it would create a new more needed activity hub.

4. Sustainability of the Site

To save on energy usage and greenhouse gas emissions all buildings on the site should be built to the highest energy efficiency standards for lighting, heating and cooling. Insulation and computerised systems should be employed to regulate temperature at about 20° and rooftop photo-voltaic cells used to generate electricity. Green roofs, which absorb greenhouse gases, retain rainwater and provide significant habitat should be mandatory on all buildings. Green roofs have the advantage being natural, low maintenance and inexpensive. They also provide natural insulation.

A more intensive rooftop garden alternative would be suitable for the the proposed opera house. It allows a wide diversity of plants and habitats, can be aesthetically landscaped and permits the roof to be used as open space. As a rooftop garden provides significant public amenity, its relatively high maintenance cost could be justified on a major public building.

Figure 12
Green Transformers
Source Sustainable Sydney 2030



Green Transformers are central plants which convert waste to energy, produce low-carbon energy and recycled water. Through cogeneration, heat is captured as the product of energy generation. This heat is then used for heating, hot water and can even be used to chill water that is then used to cool buildings.

A major opportunity exists to design Barangaroo as a 'closed loop' system. Rainwater

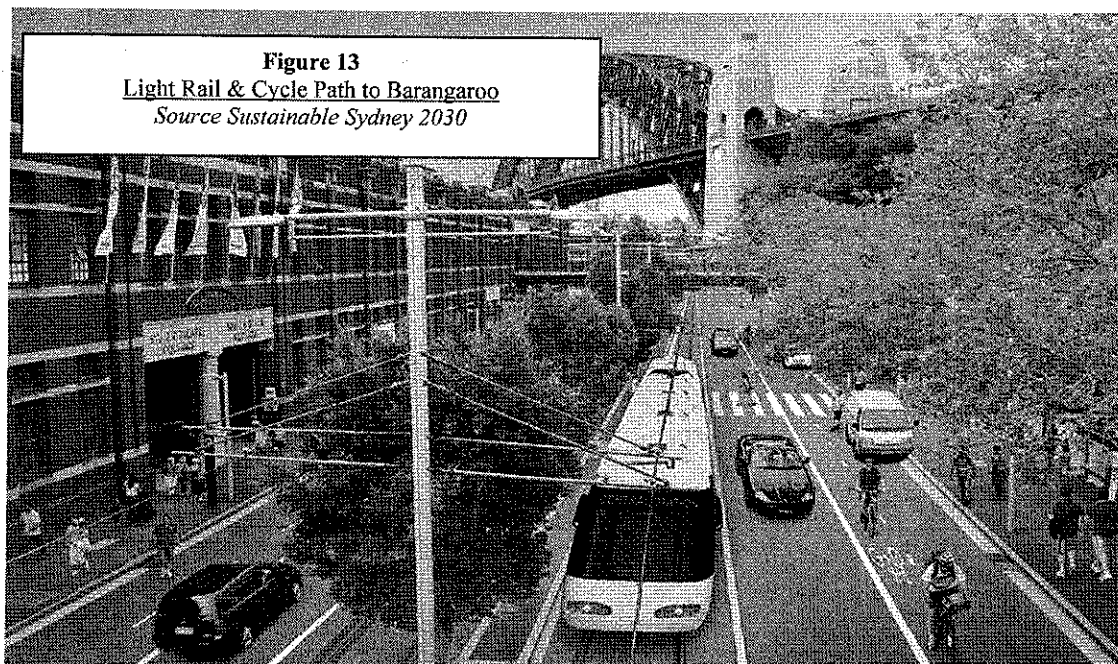
could be collected at ground level and recycled for toilet flushing. Both the green and open space areas of the site could form the catchment area. The built open space such as the proposed public square could be made of permeable bricks so water passes through the surface and is collected below. Grass would grow in the cracks around the bricks so the surface connects with the green spaces.

Sewerage and other biodegradable wastes could be recycled to produce biogas which together with the energy generated by rooftop photovoltaic cells, could not only meet the energy needs of the site users but produce a surplus that could be sold on the electricity grid. The residual biodegradable wastes could be converted to fertiliser for use on the green spaces and roof gardens. The whole system would be carbon neutral or carbon negative so that there are no net greenhouse gas emissions.

As the Barangaroo site is on low-lying land adjoining the Harbour, sea level rises as a result of climate change constitute a significant issue. To address this issue, a retaining wall taking account of future sea level rises could be built around the site. Such a project could be the start of a general program of climate change adaptation around the harbour.

In addition it may be appropriate to raise the land on which the built structures are to be erected. For this reason, Figure 2.1 envisages that the public square, the opera house and the commercial buildings would be raised about 3 metres above the present ground level. Such a construction technique would also enhance the amenity of the site because pedestrian facilities such as kiosks, toilets, and restaurants could be set in under the raised building platform at ground level without spoiling the classic lines of the main public structures. The present opera house employed a similar construction technique so that the pedestrian facilities are not visible at a distance.

5. Sustainable Transport



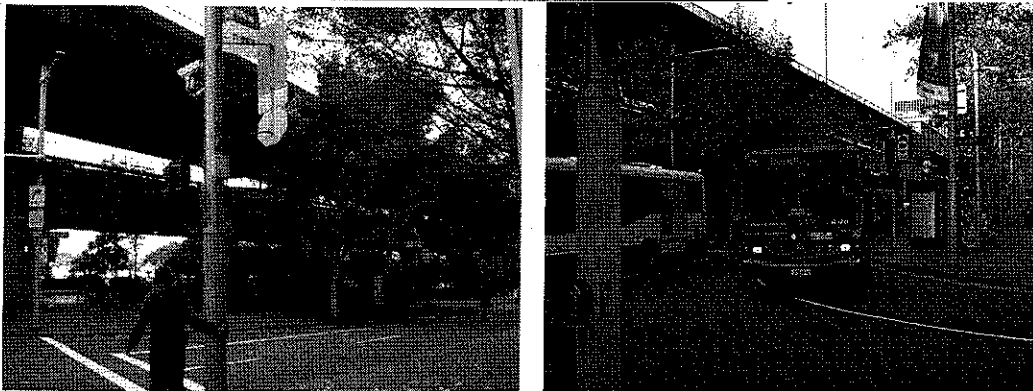
The Barangaroo development would be well served by an extension of the present light rail system in a loop that starts and finishes at Central Railway Station and connects with heavy rail at Wynyard and Town Hall stations. The light rail loop line could proceed along Castlereagh Street, across Hunter Street, down George Street, around Dawes Point to Hickson road past Barangaroo to join Sussex street, then to Haymarket and back to Central station. Much of this route is already densely built up and when Barangaroo is completed, the remainder would quickly become so, thus justifying the relatively modest cost of construction over a relatively short- time frame.



Figure 14
Light Rail Along
Castlereagh Street
Source Sustainable Sydney 2030

While trams would travel in their own dedicated lanes, pedestrians and cars would share the same urban space in narrower streets like Castlereagh. Trams would have a desirable traffic -calming effect.

Figure 15
Albert Street West Circular Quay
Source Author May 2009



To avoid overlap of bus and light rail, it would be necessary to reroute buses currently travelling to and from Circular Quay via lower George Street. These services could be replaced by the light rail loop within the CBD or rerouted down Pitt Street. The western end of Albert Street could then be fully pedestrianised. The amenity of the space could be much enhanced if the Cahill Expressway was removed.

Wynyard is a key transport interchange for the CBD. Light rail trams could be boarded at the Wynyard transport plaza in both directions as they transit lower George Street to and from Castlereagh Street via Hunter Street. The latter street would be made two way. An efficient traffic control system like that in use in Zurich would give trams a green light at intersections.

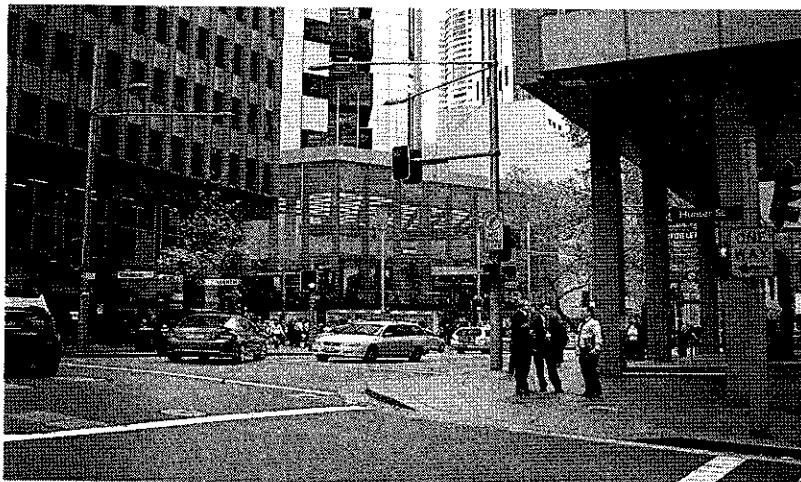


Figure 16
Proposed Tram Route
Into Lower George Street
Source Author May 2009

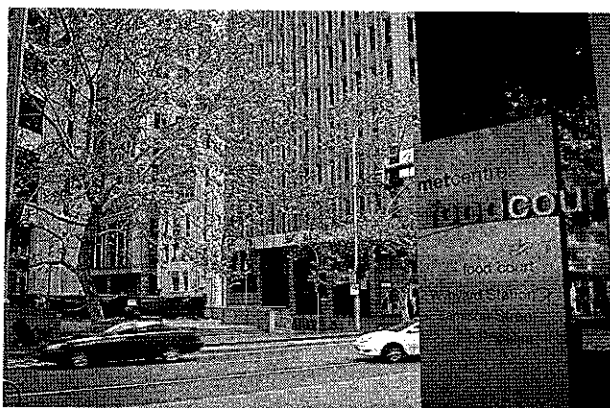


Figure 16.1
Possible Site for Tram
Stop At Wynyard
Near Australia Square
Source Author May 2009

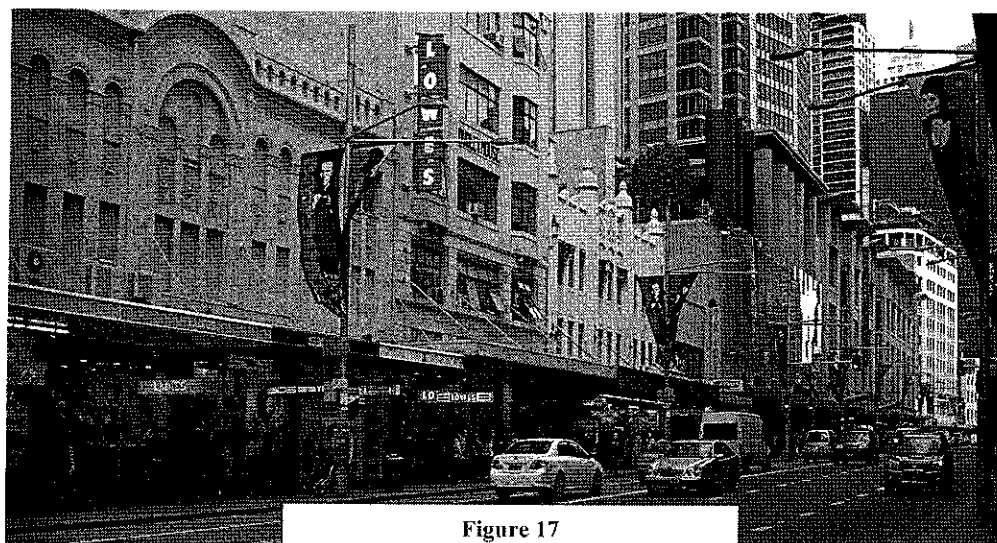


Figure 17
Imagine Central George Street
Without the Cars!
Source Author May 2009

The proposed route for the light rail loop does not go through central George Street. This leaves the option open for the future pedestrianisation of this space and its revitalisation as an attractive mixed residential, retail and commercial use precinct. The road could be landscaped with trees to create a green pedestrian promenade.

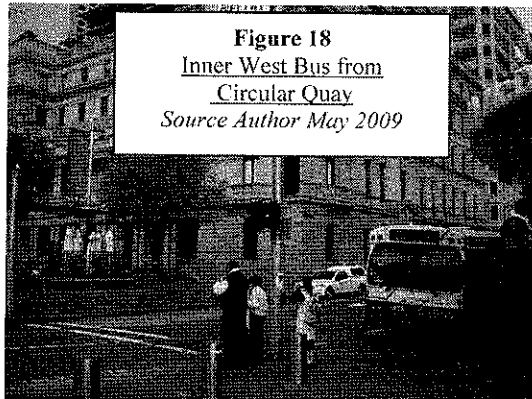


Figure 18
Inner West Bus from
Circular Quay
Source Author May 2009

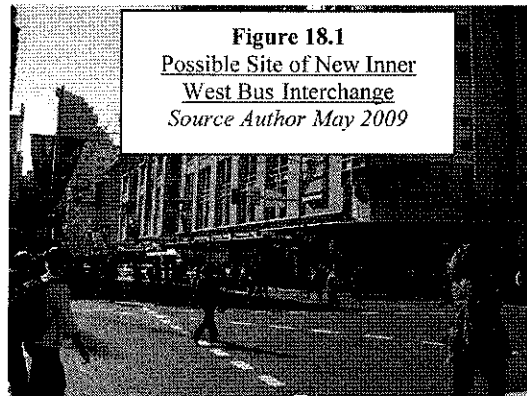


Figure 18.1
Possible Site of New Inner
West Bus Interchange
Source Author May 2009

The closing off of central George Street between Hunter Street and Market Street (except for King Street) and of West Circular Quay would create the need for a new bus interchange further north in the CBD. This could be built in George Street at the Queen Victoria building between Market and Park Streets with all motorised traffic except buses excluded. Buses would circulate around and across this block and cars around it. Without the cars there would be much more dedicated space for pedestrians.

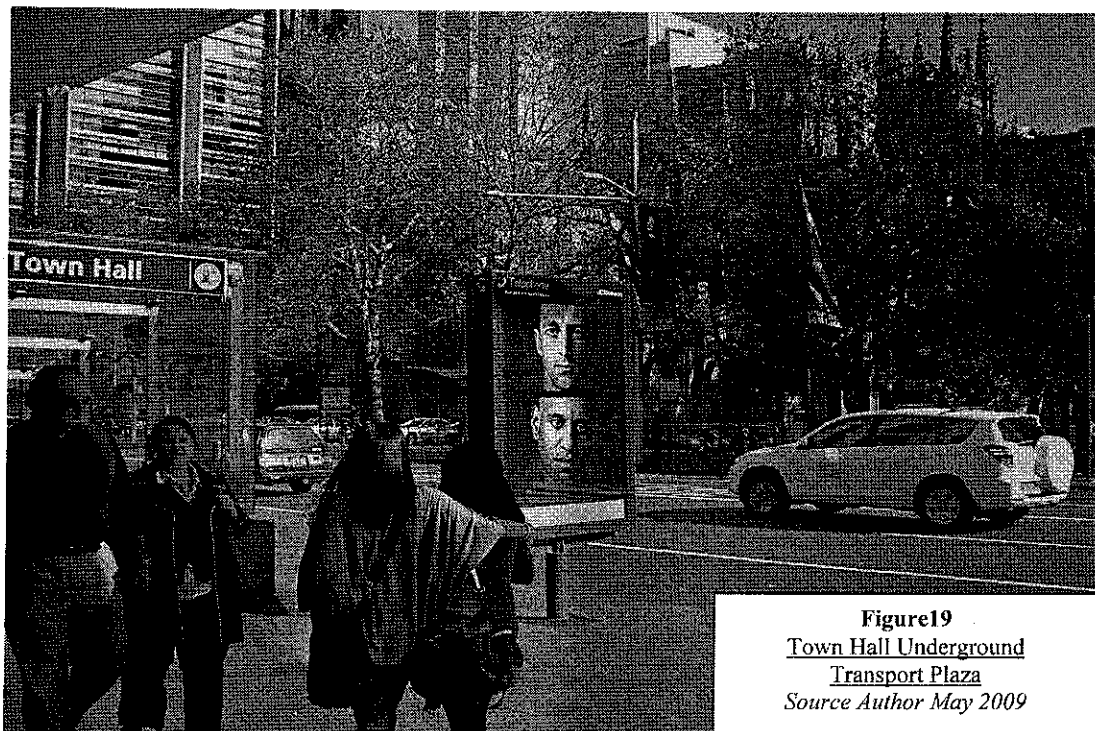
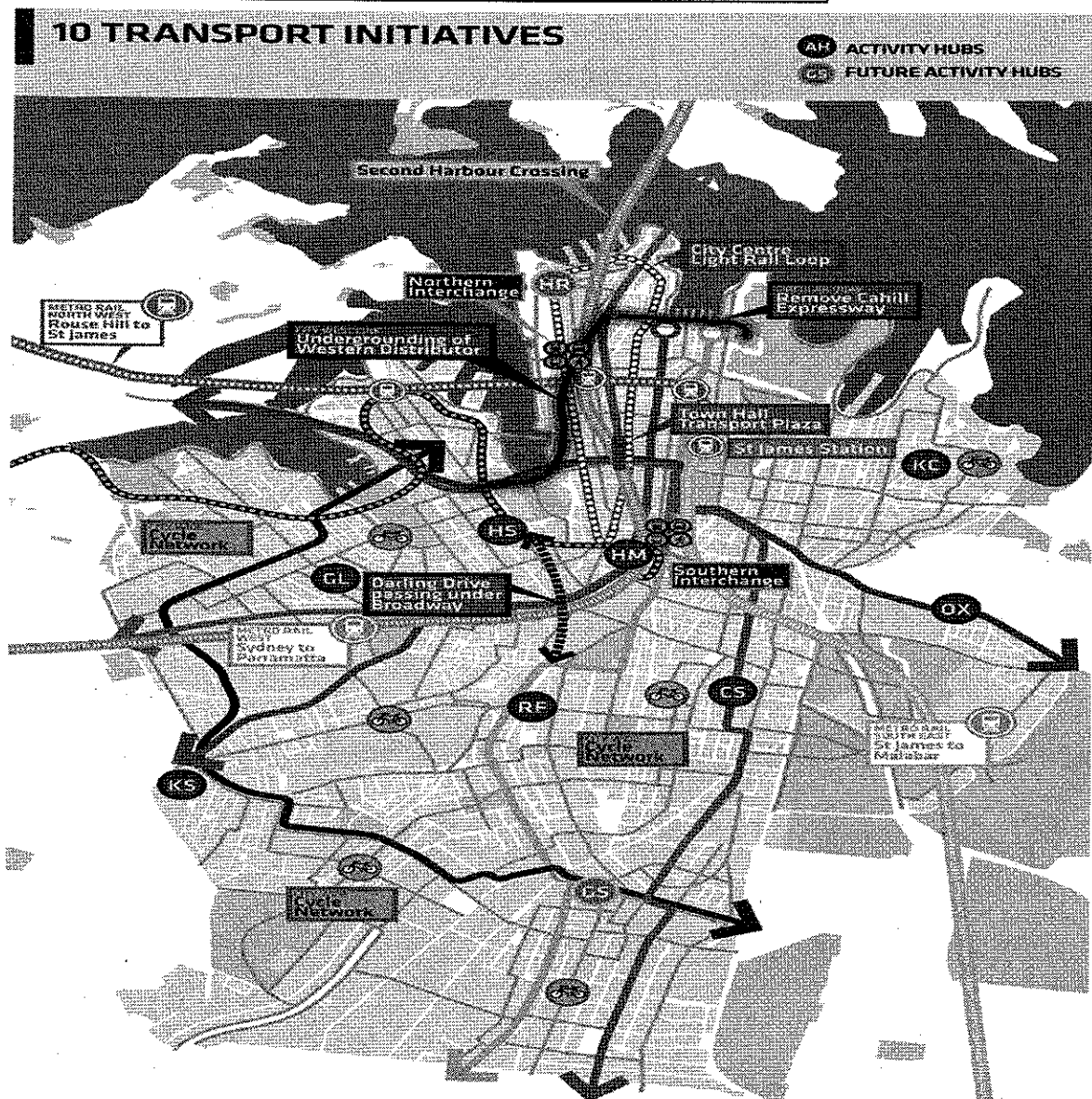


Figure19
Town Hall Underground
Transport Plaza
Source Author May 2009

Light rail could be directly accessed at Town Hall via a short pedestrian extension under Pitt Street to Castlereagh street. To create much needed pedestrian space around Town Hall station and to enhance the amenity of the Town Hall and St Andrews Cathedral, George Street could be closed off between Park and Bathurst Streets except for buses. The buses could run in two bus lanes through the centre of the new public open space thereby created.

Figure 20 (below) shows proposals for a new north west rail link and a second harbour crossing which should be supported because they will meet the long-term mass transit needs of Sydney. As shown, the light rail loop would access heavy rail at the Northern Interchange (Wynyard), the Town Hall Transport Plaza and the Southern Interchange (Central).

Figure 20
Proposals for Sustainable Transport Networks
Source Sustainable Sydney 2030



As can be seen from the green lines in Figure 20, the City of Sydney planners envisage an extensive network of cycle ways. This includes cycleways which would proceed along Hickson Road, along the waters edge at Barangaroo into Darling Harbour and across Pymont Bridge to the inner west suburbs.

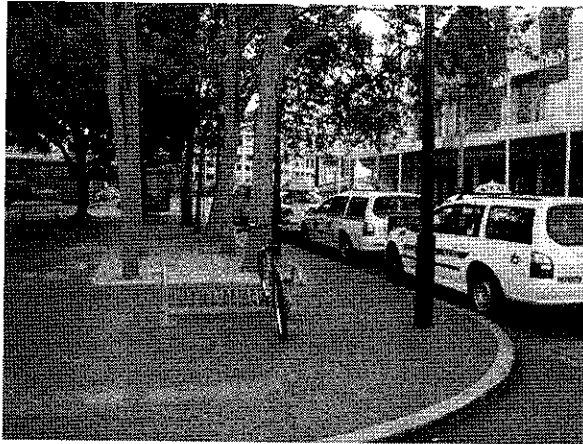


Figure 21
Bike Parking
Darling Harbour
Source Author May 2009

Barangaroo should lead the way in supporting sustainable transport. Bike parking bays (Figure 21) should be provided as well as change rooms for commuters bicycling to and from work. To discourage commuters bringing cars into the city, limited car parking should be provided on site. Instead Park and Ride facilities should be built at public transport nodes outside the City of Sydney in line with the *City of Cities* metropolitan plan. A new ferry wharf would not only provide sustainable transport but create an activity hub near the proposed public square (see Figure 2.1).

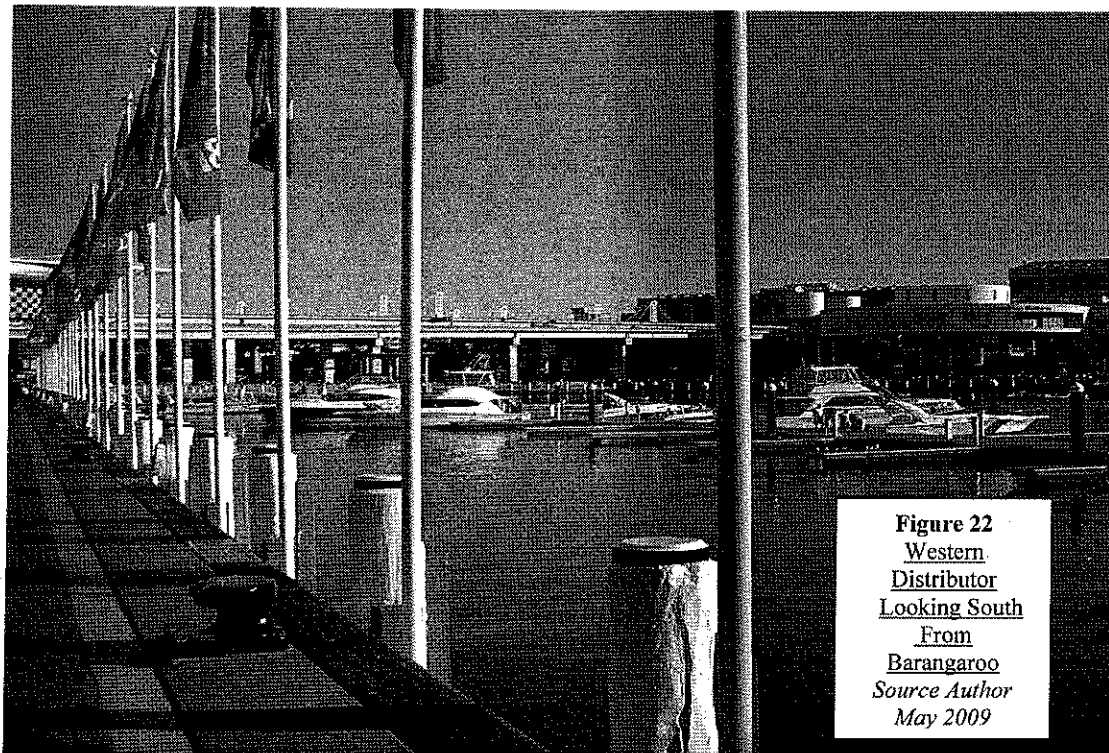
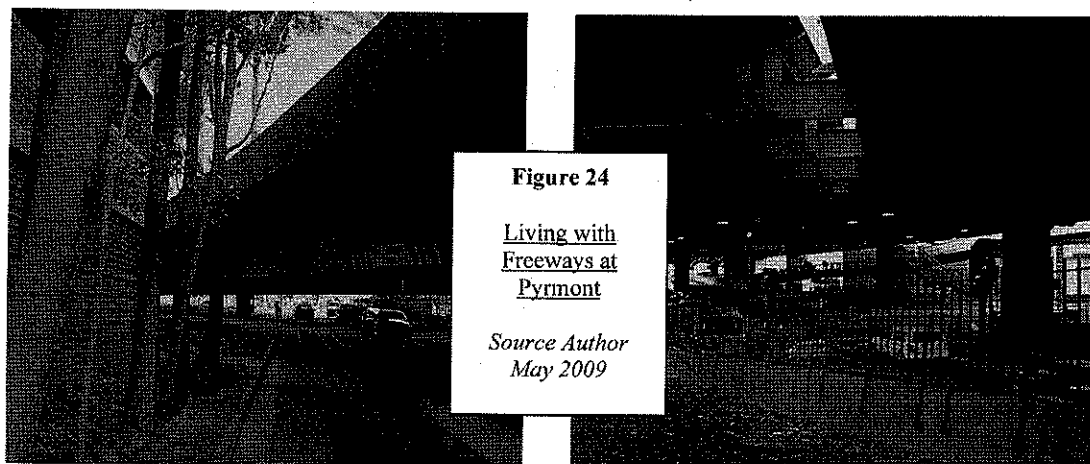
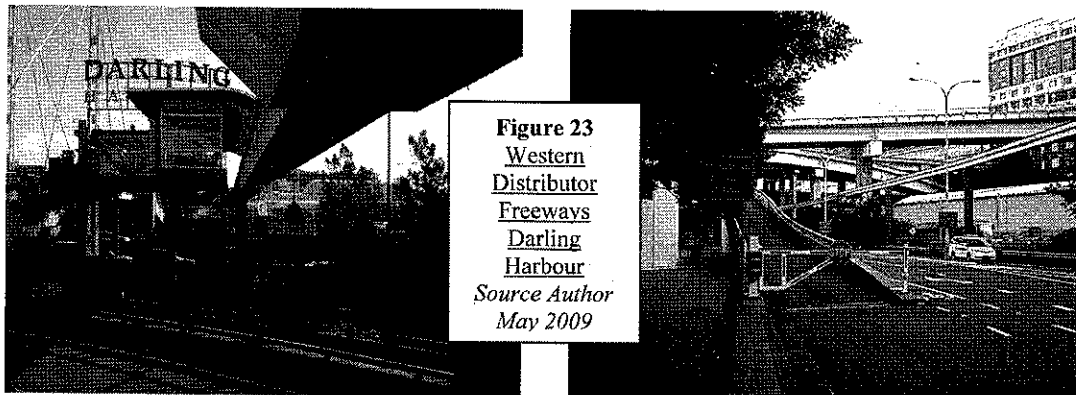


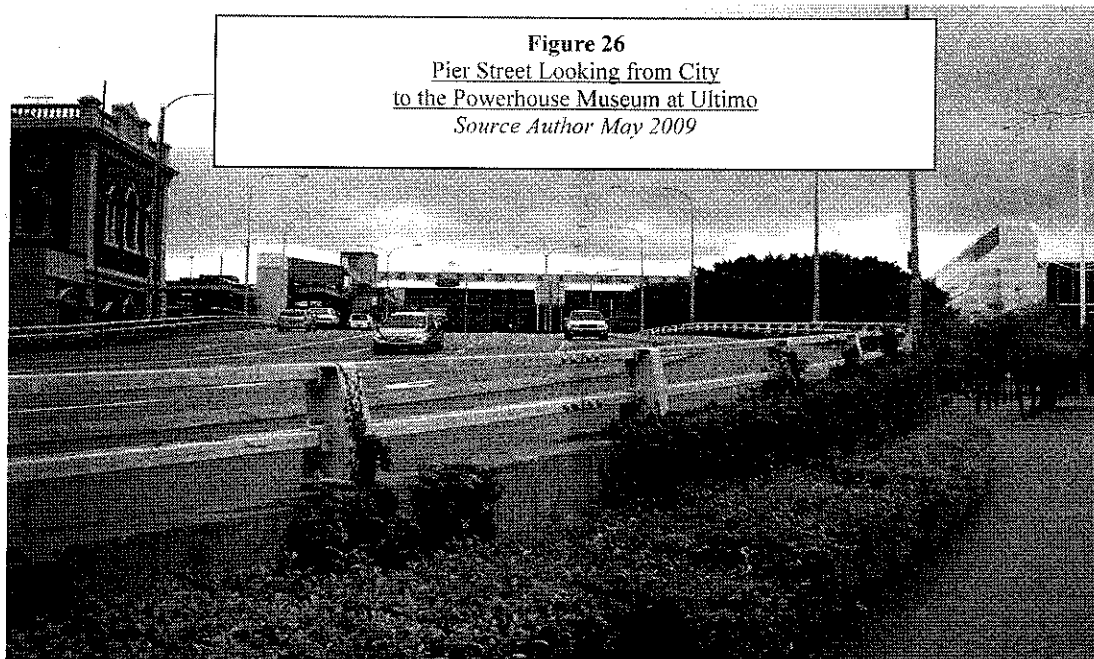
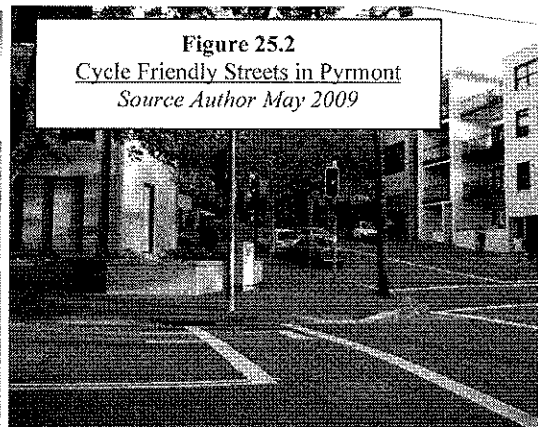
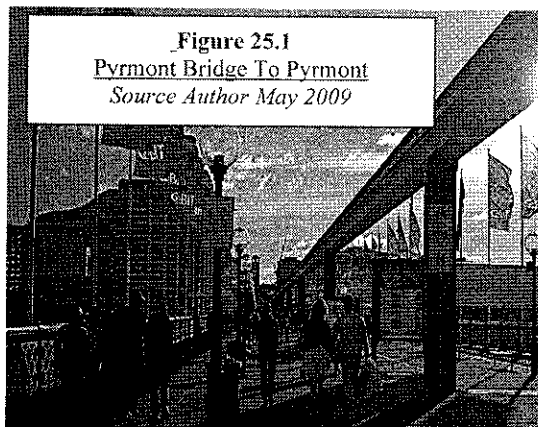
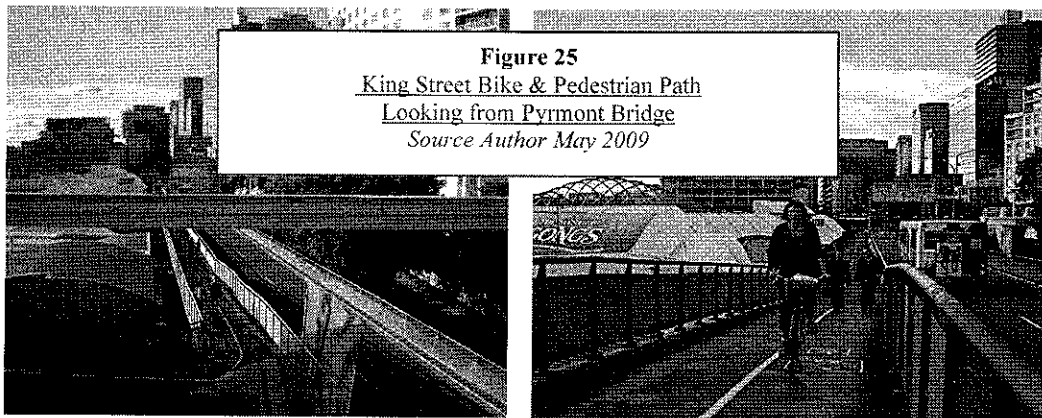
Figure 22
Western
Distributor
Looking South
From
Barangaroo
Source Author
May 2009

The environment at Darling Harbour is dominated by the Western Distributor that spoils the amenity of the area for bicycling and walking. If the freeways were buried as proposed by City of Sydney planners, it would open up the whole Western CBD area and significantly enhance the liveability of the nearby Pyrmont-Ultimo area.

The underground Western Distributor could link up with the Cross City tunnel and emerge just south of the of the Harbour Bridge to connect with the Bradfield Highway, thus avoiding the need for through traffic to access the CBD area. Also a new underground connection could be built to improve the flow of traffic presently accessing the Bradfield Highway via Wattle and Fig Streets Ultimo. This would significantly decrease the volume of traffic in the latter streets and have a calming effect on the Ultimo and Pyrmont urban villages (see Section 6).



At present a safe cycle and pedestrian route is possible along Hickson Road from Barangaroo into Darling Harbour, then across Pyrmont Bridge across to cycle friendly streets in Pyrmont and Ultimo. A specially constructed ramp between King Street and and Pyrmont Bridge can also be accessed at the intersection of Sussex and King streets from the Barangaroo direction.

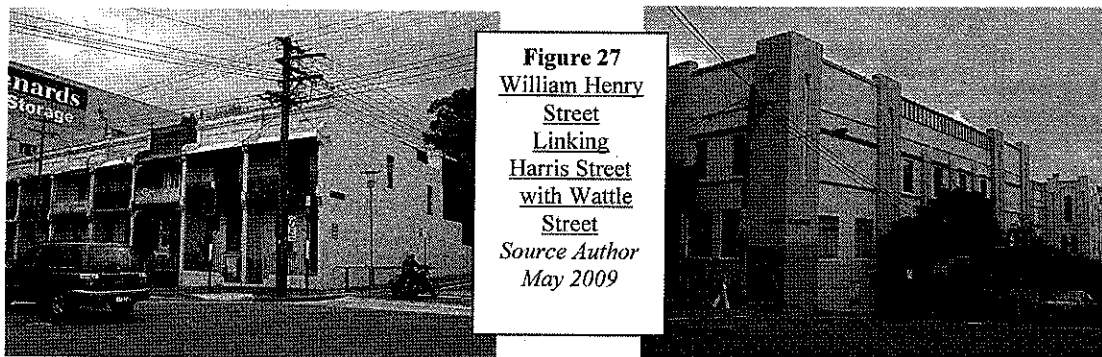


While Pyrmont bridge presently affords an amenable path into Pyrmont/Ultimo for pedestrians and cyclists, a second such crossing is needed further south. A wide pedestrian and bicycle promenade (accessed both from Darling Harbour and the city) could be reserved across Pier Street. This would encourage more Ultimo/Pyrmont residents to access the city by foot or bike and improve the sustainability of high density housing in the rectangle bounded by Harris and Wattle Streets.

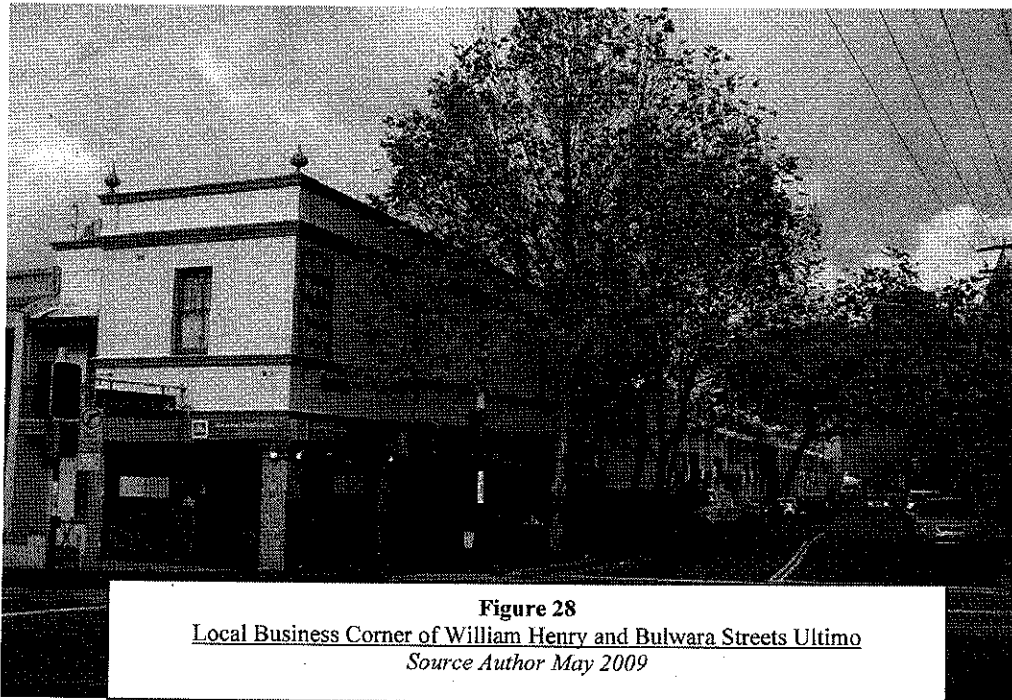
6. Affordable and Sustainable Housing Options Close to Barangaroo

As indicated above, Pyrmont and Ultimo urban villages are currently going through an extensive densification process which has significantly increased and has further potential to increase, the supply of affordable housing close to Barangaroo. Most housing densification has occurred at Pyrmont, north of the Western Distributor, along a public transport corridor. This corridor is well served by an efficient bus service from the CBD along Harris Street to Star City, a light rail service on the lower harbourside level from Haymarket and a pedestrian/bike corridor across the Pyrmont Bridge.

If the Western Distributor was buried, buses could proceed from the proposed new bus interchange at the Queen Victoria Building, west down Park Street, south past Darling Harbour and west into Pier Street where they could access Harris and Wattle streets. These route would create potential for a longer densification corridor in the Pyrmont-Ultimo area and eventually support a case for an extension of light rail along the latter streets.

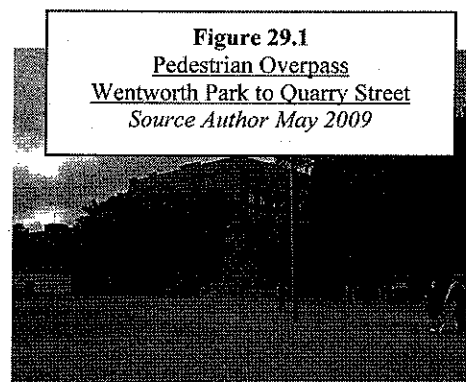
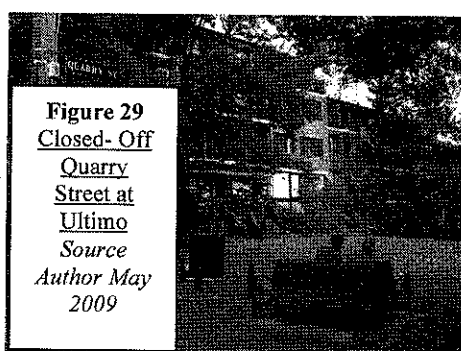


William Henry Street Ultimo features mixed commercial and residential uses, low-rise high density housing and a range of housing styles. A variety of zoned uses and housing types permits residents to remain in the area throughout the cycle of life and thus create a sense of community.



Mixed residential and commercial land uses ensure local job opportunities and services for residents.

Environmental planning instruments need to impose maximum parking space requirements. This would prevent the streets being clogged with cars and encourage walking and cycling. It would also permit more closing off of streets to create attractive public spaces. A pedestrian and bicycle oriented district would favour local businesses and help build the neighbourhood. Without having to supply car parking, developers could offer more affordable housing. Traffic- calmed and pedestrianised streets provide a safe environment for children.



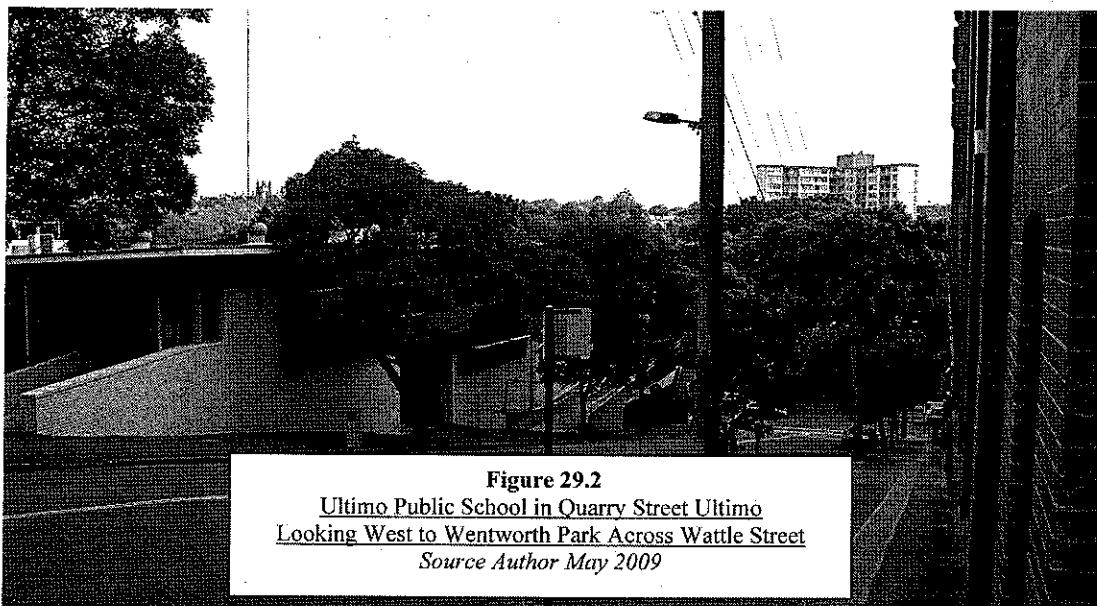


Figure 29.2
Ultimo Public School in Quarry Street Ultimo
Looking West to Wentworth Park Across Wattle Street
Source Author May 2009

Quarry Street Ultimo is already partially closed off (see Figure 29) and an opportunity exists to close it off over its whole length. With the Western Distributor buried, local traffic could use Fig Street to cross between Wattle and Harris Streets. A vegetated overpass could then be constructed across Wattle Street to create a green corridor to Wentworth Park. Similarly the eastern end of Quarry Street could connect with the proposed new park at Darling Harbour via another green corridor.

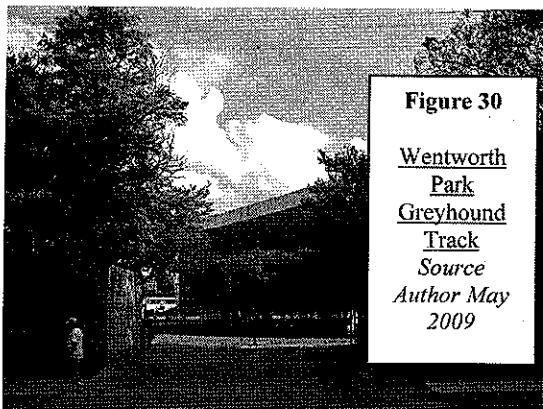


Figure 30

Wentworth
Park
Greyhound
Track
Source
Author May
2009

Figure 30.1
Light Rail Overpass Wentworth Park
Source Author May 2009



The eventual sustainable outcome could be an extensive biodiversity corridor that extends from Dawes Point Park under the Harbour Bridge down Hickson Road through Barangaroo and a new Darling Harbour Park to Wentworth Park. Consideration could be given to relocating Wentworth Park Greyhound Track to Olympic Park where it would be closer to the centre of the Greater Sydney metropolitan area and thus serve a bigger community. This would create more green space at Wentworth Park that could be landscaped in an ecologically sustainable way.

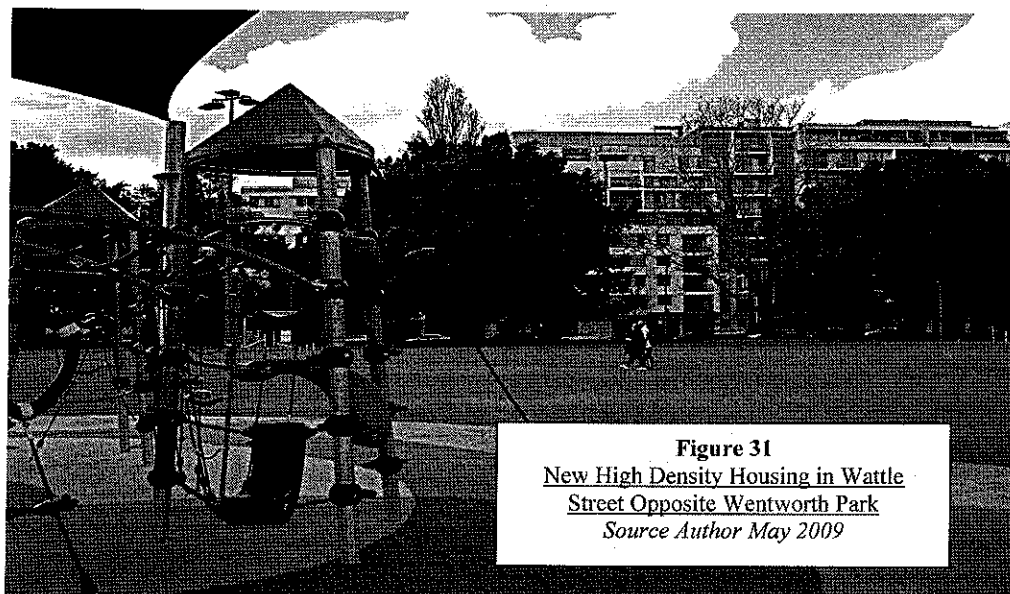


Figure 31
New High Density Housing in Wattle
Street Opposite Wentworth Park
Source Author May 2009

Figure 31 indicates that a strip of high-density luxury apartments is being developed along Wattle street overlooking the southern end of Wentworth Park. To ensure a balance of socioeconomic groups living on the edges of this amenable green space, affordable housing needs to be integrated with the up market housing. Fortunately an opportunity exists to redevelop a large parcel of land adjoining William Henry Street opposite Wentworth Park as a social housing project. The land is currently occupied by the City of Sydney Depot that should be relocated to cheaper industrial land elsewhere in the City.

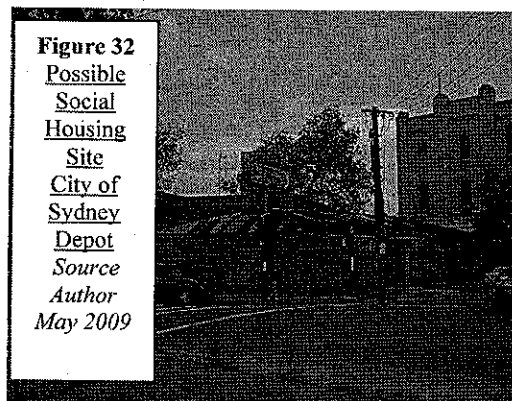


Figure 32
Possible
Social
Housing
Site
City of
Sydney
Depot
Source
Author
May 2009

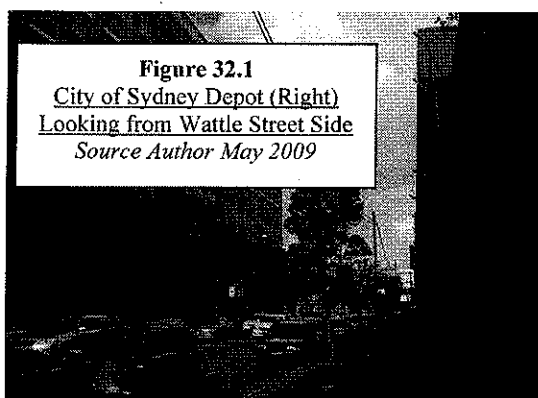


Figure 32.1
City of Sydney Depot (Right)
Looking from Wattle Street Side
Source Author May 2009

The social housing development on the City of Sydney Depot site could be designed as an innovative 'closed loop' project like the Olympic village. Photo voltaic roof panels, green roofs, energy saving, water harvesting and recycling of wastes (see Figure 12, 'Green Transformers') would be key features of the project. It could serve as the benchmark for car-free and ecologically friendly development in the Pymont-Ultimo district.

7 The City of Sydney Vision for the Western CBD

BEFORE



Figure 33

Existing View
to the North
Across Darling
Harbour to
Barangaroo

Source
Sustainable
Sydney 2030

AFTER

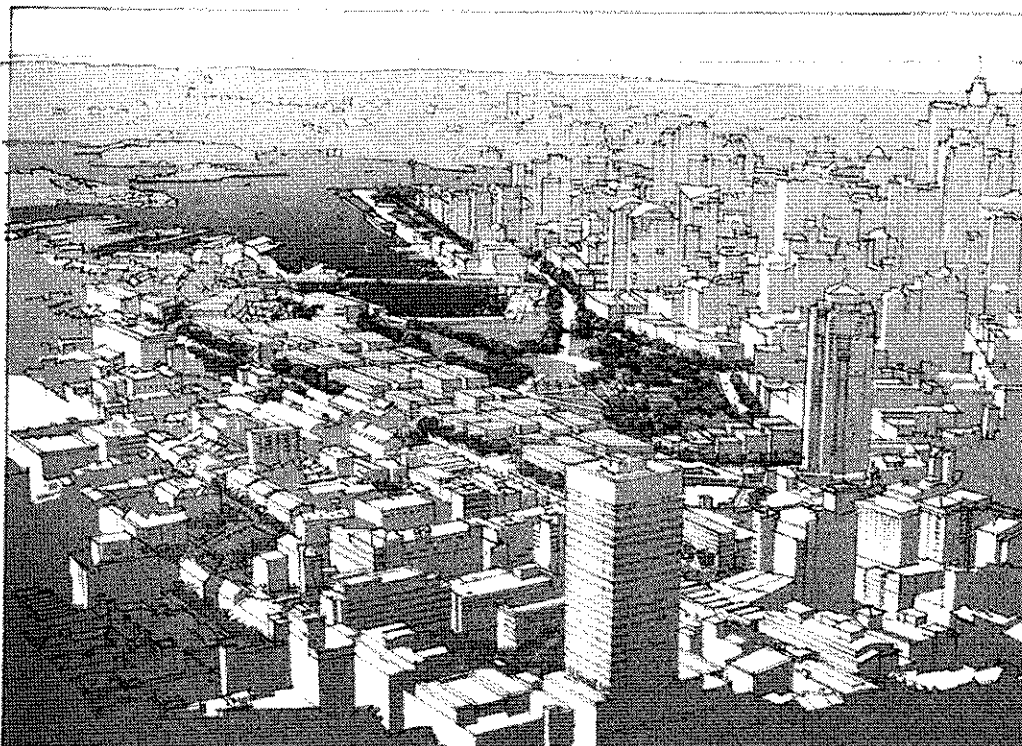


Figure 33.1

Planned New
Western Edge
for the CBD
Looking North
Across Darling
Harbour to
Barangaroo

Source
Sustainable
Sydney 2030

As can be seen from Figures 33 and 33.1, the City of Sydney planners envisage a radical transformation of the western edge of the CBD by 2030. When the commercial and entertainment buildings surrounding Darling Harbour and Haymarket come to the end of their useful lives, they will be replaced with low- rise high density residential blocks. The living environment will be highly amenable because the residential blocks will front a new ecologically landscaped park, 80% the size of Hyde Park.

Such a complementary development would go a long way in providing for the living needs of many of the workers in the new Barangaroo job- creating centre. The blocks will be within easy walking and cycling distance of the latter centre and the rest of the CBD. As discussed in Section 6 above, care would need to be taken to make the zoning flexible enough to allow range of housing types and to permit local retail and commercial uses to service the development and build the neighbourhood. Severe maximum parking limits should be imposed on developers to encourage walking and cycling and keep down housing costs. The whole development should be designed as a 'closed loop' system incorporating the green features described elsewhere in this submission.

Figure 33.1 shows a green corridor extending from along the eastern edge of Barrangaroo and Darling Harbour to the new ecological park. The drawing does not show any built development for Barangaroo but the sustainable mixed public, commercial and green headland uses for the site outlined in my submission do not preclude this green corridor. Indeed as discussed above, my plan calls for a much longer green corridor extending from Dawes Point Park through Barangaroo/Darling Harbour to the new ecological park and then west to Wentworth Park.

The key to opening up the western edge of the CBD in this very sustainable way is the burying of the Western Distributor as discussed in my submission. Not only will it radically improve the liveability of the western CBD and the Ultimo/ Pyrmont urban villages, it will create much needed space to build high- density residential blocks to serve Sydney's growing population as shown in Figure 33.1. It will also make possible the green corridor detailed in that drawing. It is thus entirely consistent and complementary to the integrated development plan for Barangaroo outlined in my submission. I therefore support the City of Sydney's overall vision for the western edge of the CBD.

In the meantime I propose that detailed planning for Barangaroo along the lines outlined in this submission should begin as soon as possible.

The proposed route for the light rail loop does not go through central George Street. This leaves the option open for the future pedestrianisation of this space and its revitalisation as an attractive mixed residential, retail and commercial use precinct. The road could be landscaped with trees to create a green pedestrian promenade.

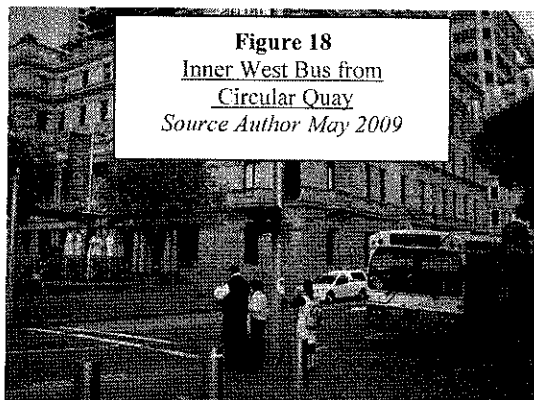


Figure 18
Inner West Bus from
Circular Quay
Source Author May 2009

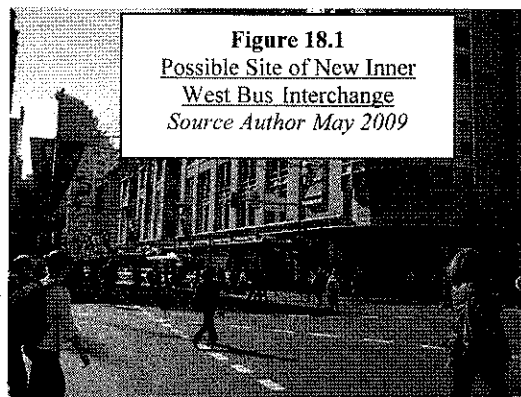


Figure 18.1
Possible Site of New Inner
West Bus Interchange
Source Author May 2009

The closing off of central George Street between Hunter Street and Market Street (except for King Street) and of West Circular Quay would create the need for a new bus interchange further north in the CBD. This could be built in George Street at the Queen Victoria building between Market and Park Streets with all motorised traffic except buses excluded. Buses would circulate around and across this block and cars around it. Without the cars there would be much more dedicated space for pedestrians.

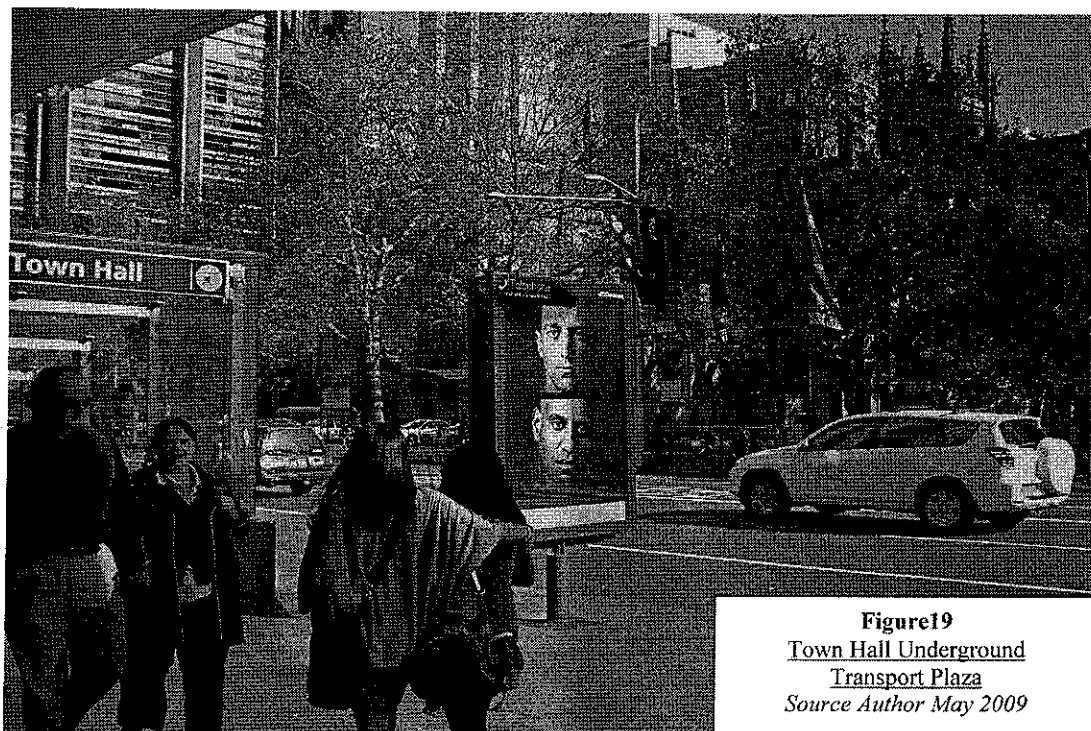
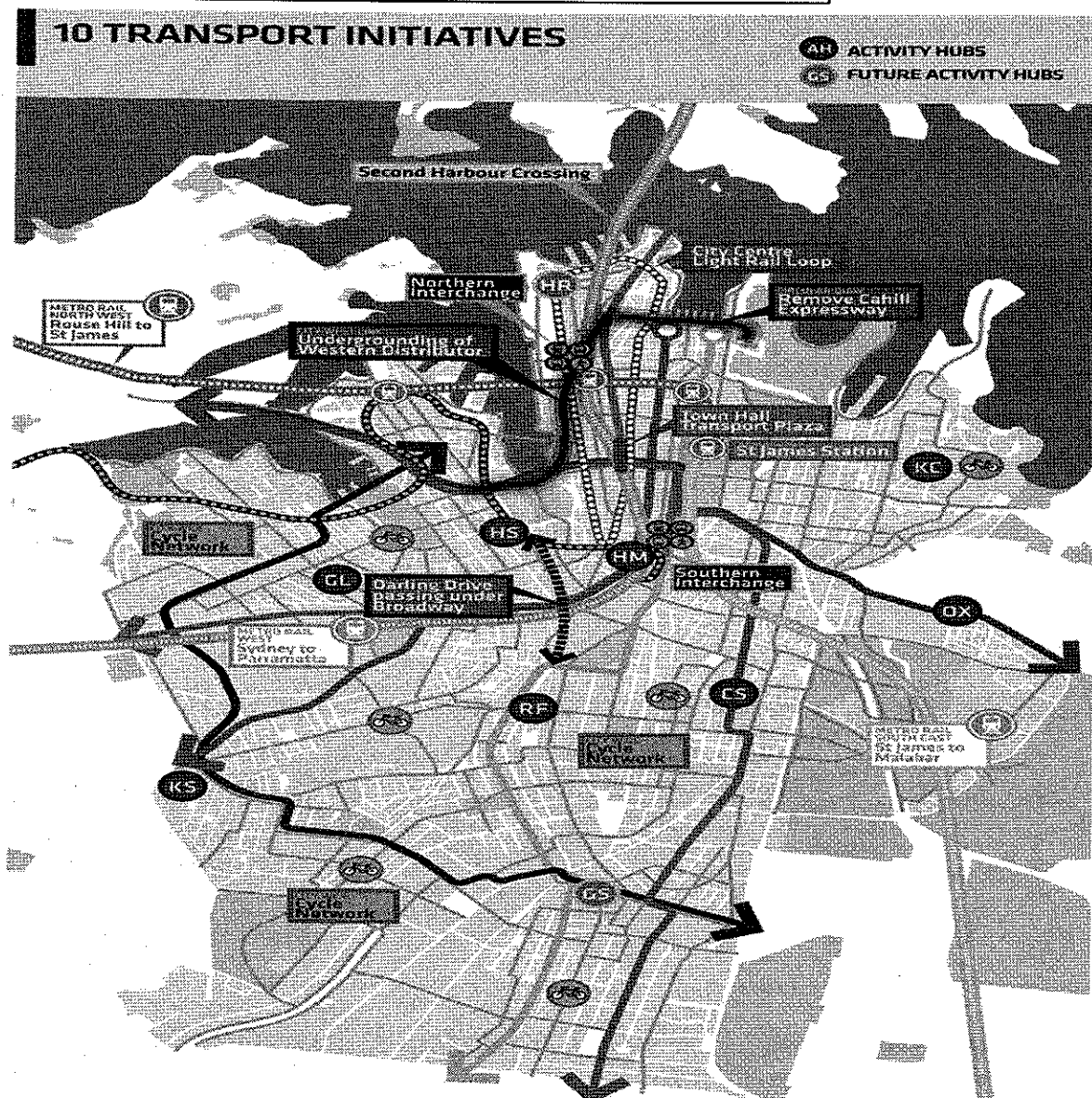


Figure19
Town Hall Underground
Transport Plaza
Source Author May 2009

Light rail could be directly accessed at Town Hall via a short pedestrian extension under Pitt Street to Castlereagh street. To create much needed pedestrian space around Town Hall station and to enhance the amenity of the Town Hall and St Andrews Cathedral, George Street could be closed off between Park and Bathurst Streets except for buses. The buses could run in two bus lanes through the centre of the new public open space thereby created.

Figure 20 (below) shows proposals for a new north west rail link and a second harbour crossing which should be supported because they will meet the long- term mass transit needs of Sydney. As shown, the light rail loop would access heavy rail at the Northern Interchange (Wynyard), the Town Hall Transport Plaza and the Southern Interchange (Central).

Figure 20
Proposals for Sustainable Transport Networks
Source Sustainable Sydney 2030



As can be seen from the green lines in Figure 20, the City of Sydney planners envisage an extensive network of cycle ways. This includes cycleways which would proceed along Hickson Road, along the waters edge at Barangaroo into Darling Harbour and across Pymont Bridge to the inner west suburbs.



Figure 21
Bike Parking
Darling Harbour
Source Author May 2009

Barangaroo should lead the way in supporting sustainable transport. Bike parking bays (Figure 21) should be provided as well as change rooms for commuters bicycling to and from work. To discourage commuters bringing cars into the city, limited car parking should be provided on site. Instead Park and Ride facilities should be built at public transport nodes outside the City of Sydney in line with the *City of Cities* metropolitan plan. A new ferry wharf would not only provide sustainable transport but create an activity hub near the proposed public square (see Figure 2.1).

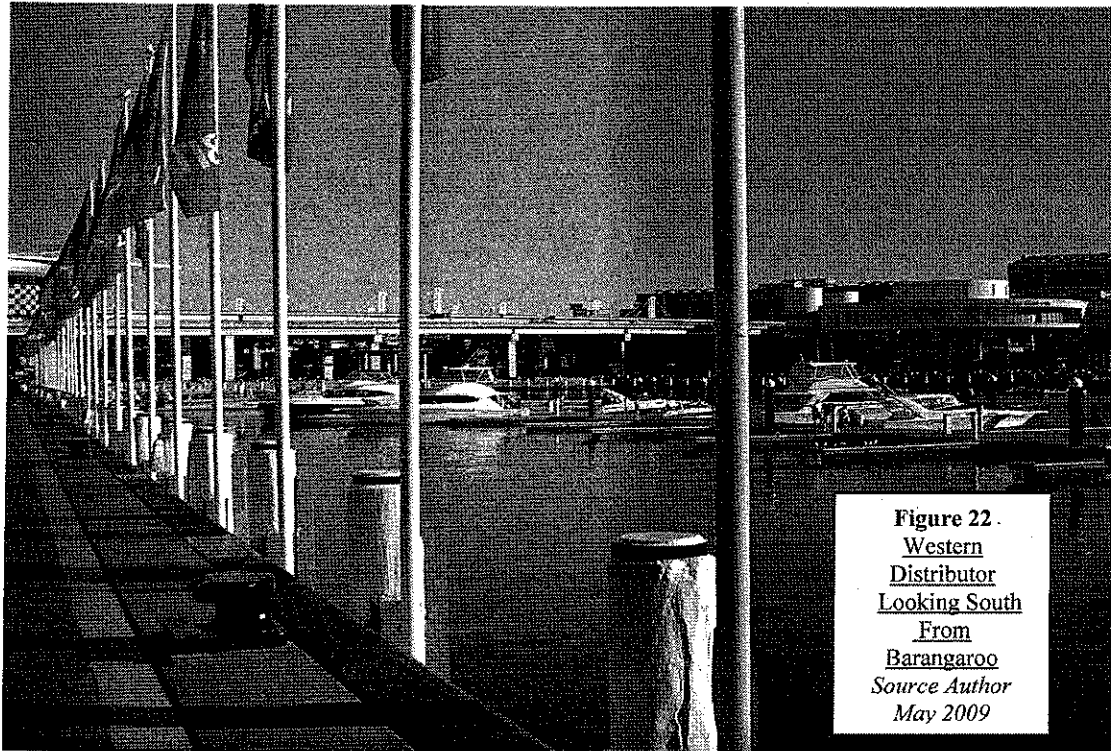
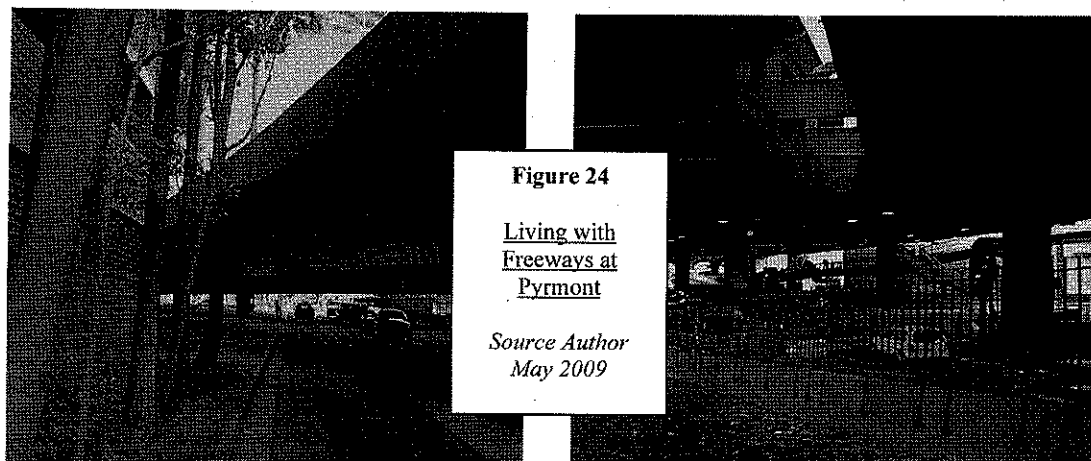
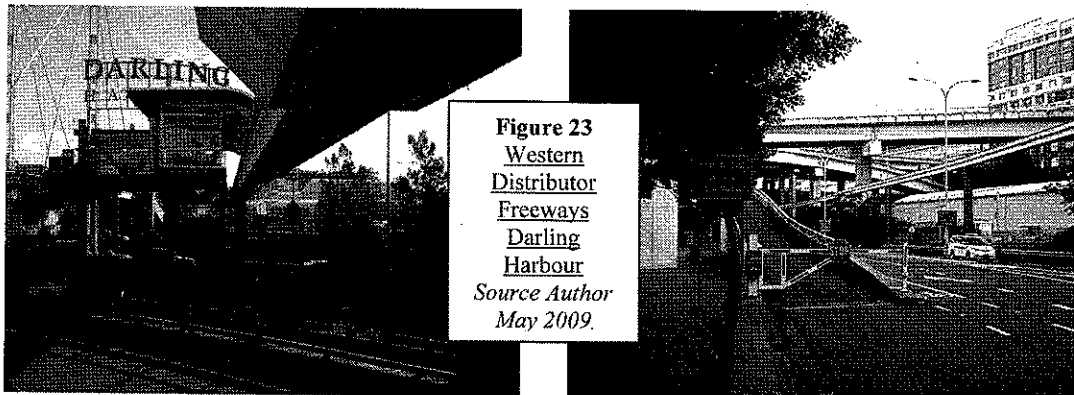


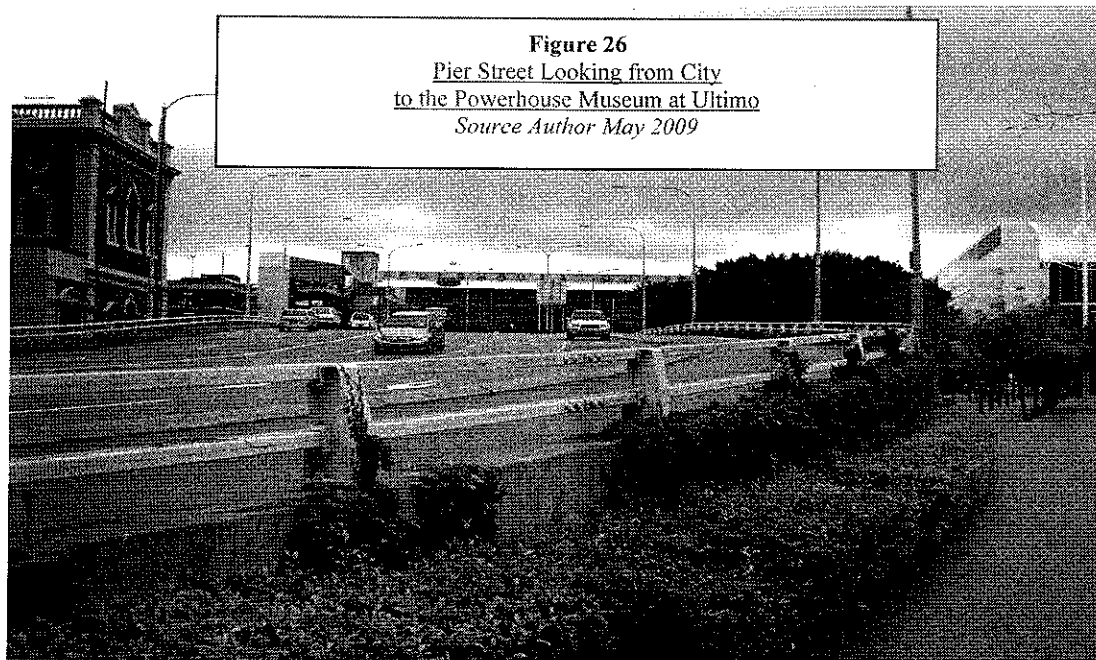
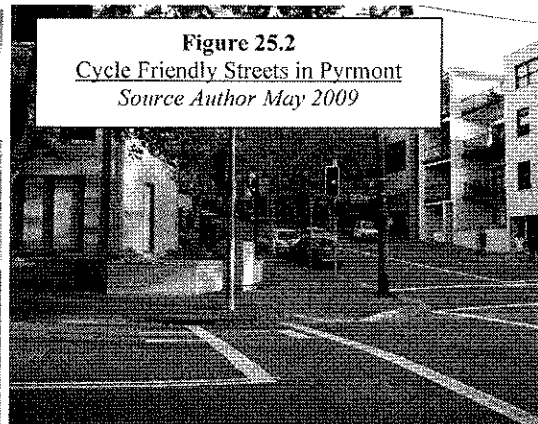
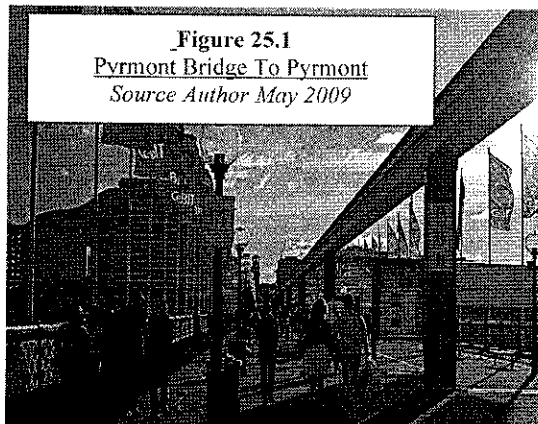
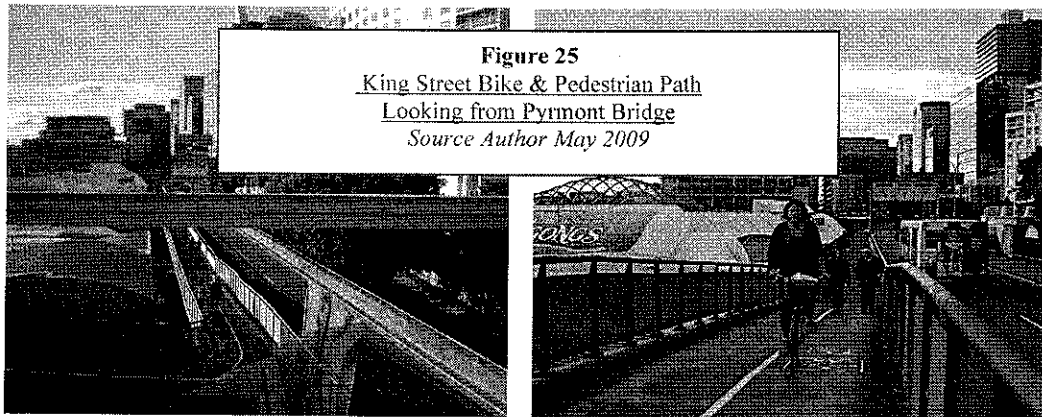
Figure 22 .
Western
Distributor
Looking South
From
Barangaroo
Source Author
May 2009

The environment at Darling Harbour is dominated by the Western Distributor that spoils the amenity of the area for bicycling and walking. If the freeways were buried as proposed by City of Sydney planners, it would open up the whole Western CBD area and significantly enhance the liveability of the nearby Pyrmont-Ultimo area.

The underground Western Distributor could link up with the Cross City tunnel and emerge just south of the of the Harbour Bridge to connect with the Bradfield Highway, thus avoiding the need for through traffic to access the CBD area. Also a new underground connection could be built to improve the flow of traffic presently accessing the Bradfield Highway via Wattle and Fig Streets Ultimo. This would significantly decrease the volume of traffic in the latter streets and have a calming effect on the Ultimo and Pyrmont urban villages (see Section 6).



At present a safe cycle and pedestrian route is possible along Hickson Road from Barangaroo into Darling Harbour, then across Pyrmont Bridge across to cycle friendly streets in Pyrmont and Ultimo. A specially constructed ramp between King Street and and Pyrmont Bridge can also be accessed at the intersection of Sussex and King streets from the Barangaroo direction.

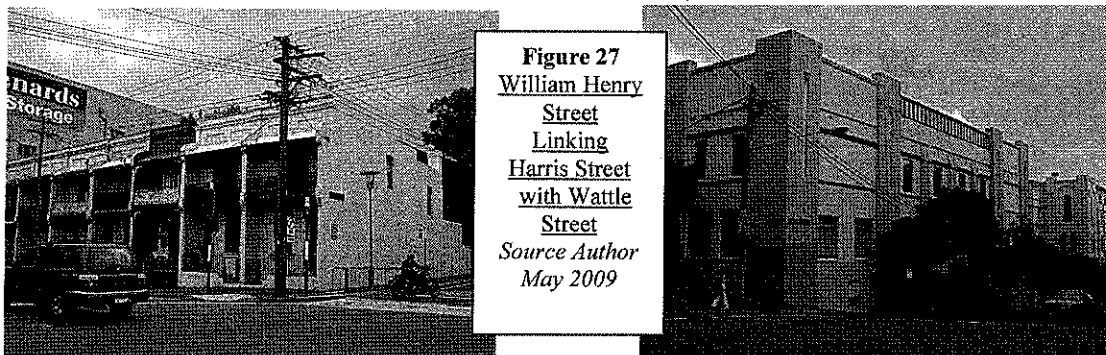


While Pyrmont bridge presently affords an amenable path into Pyrmont/Ultimo for pedestrians and cyclists, a second such crossing is needed further south. A wide pedestrian and bicycle promenade (accessed both from Darling Harbour and the city) could be reserved across Pier Street. This would encourage more Ultimo/Pyrmont residents to access the city by foot or bike and improve the sustainability of high density housing in the rectangle bounded by Harris and Wattle Streets.

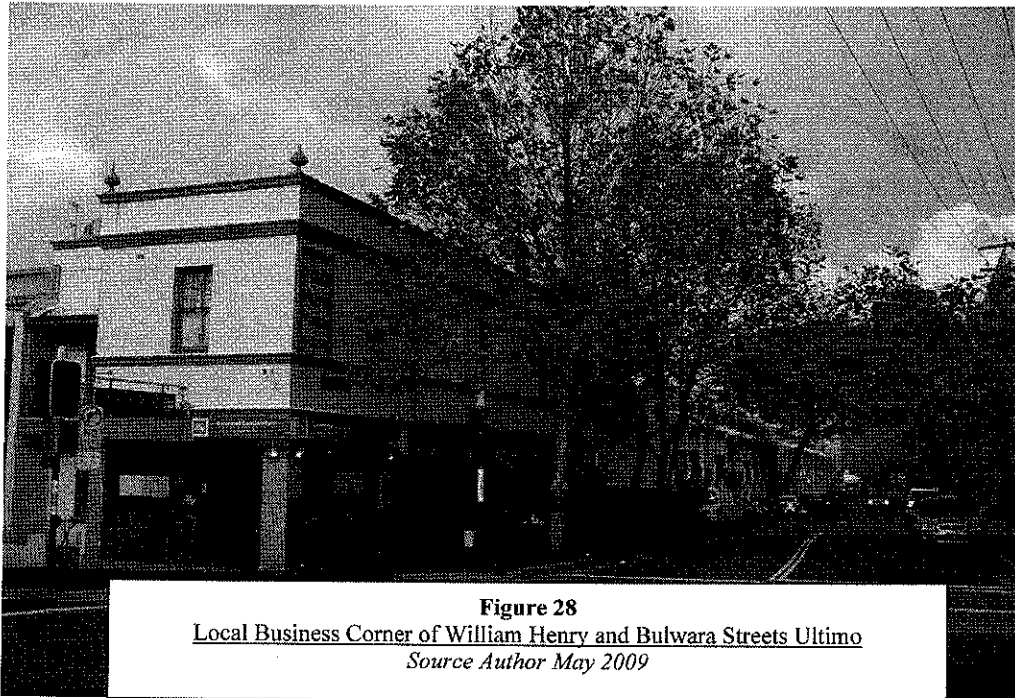
6. Affordable and Sustainable Housing Options Close to Barangaroo

As indicated above, Pyrmont and Ultimo urban villages are currently going through an extensive densification process which has significantly increased and has further potential to increase, the supply of affordable housing close to Barangaroo. Most housing densification has occurred at Pyrmont, north of the Western Distributor, along a public transport corridor. This corridor is well served by an efficient bus service from the CBD along Harris Street to Star City, a light rail service on the lower harbourside level from Haymarket and a pedestrian/bike corridor across the Pyrmont Bridge.

If the Western Distributor was buried, buses could proceed from the proposed new bus interchange at the Queen Victoria Building, west down Park Street, south past Darling Harbour and west into Pier Street where they could access Harris and Wattle streets. These route would create potential for a longer densification corridor in the Pyrmont-Ultimo area and eventually support a case for an extension of light rail along the latter streets.

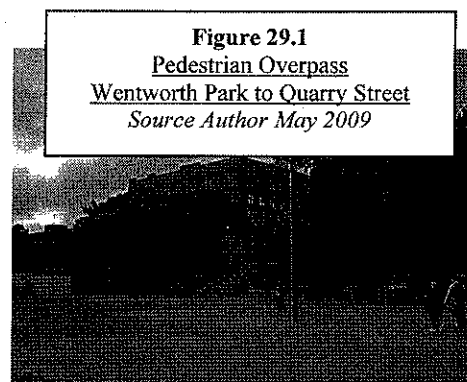
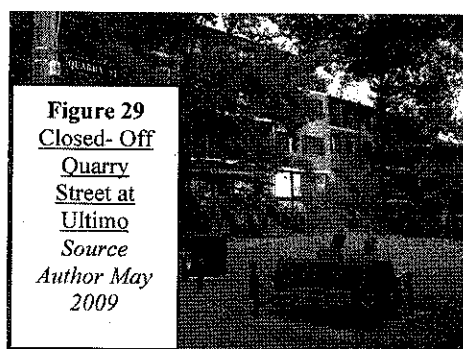


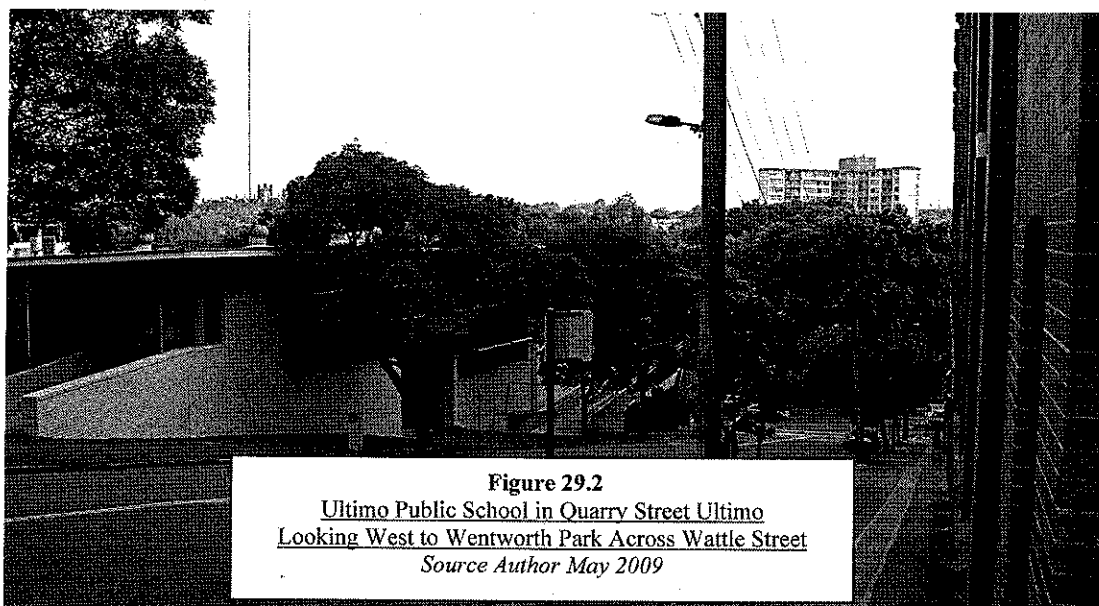
William Henry Street Ultimo features mixed commercial and residential uses, low-rise high density housing and a range of housing styles. A variety of zoned uses and housing types permits residents to remain in the area throughout the cycle of life and thus create a sense of community.



Mixed residential and commercial land uses ensure local job opportunities and services for residents.

Environmental planning instruments need to impose maximum parking space requirements. This would prevent the streets being clogged with cars and encourage walking and cycling. It would also permit more closing off of streets to create attractive public spaces. A pedestrian and bicycle oriented district would favour local businesses and help build the neighbourhood. Without having to supply car parking, developers could offer more affordable housing. Traffic- calmed and pedestrianised streets provide a safe environment for children.





Quarry Street Ultimo is already partially closed off (see Figure 29) and an opportunity exists to close it off over its whole length. With the Western Distributor buried, local traffic could use Fig Street to cross between Wattle and Harris Streets. A vegetated overpass could then be constructed across Wattle Street to create a green corridor to Wentworth Park. Similarly the eastern end of Quarry Street could connect with the proposed new park at Darling Harbour via another green corridor.

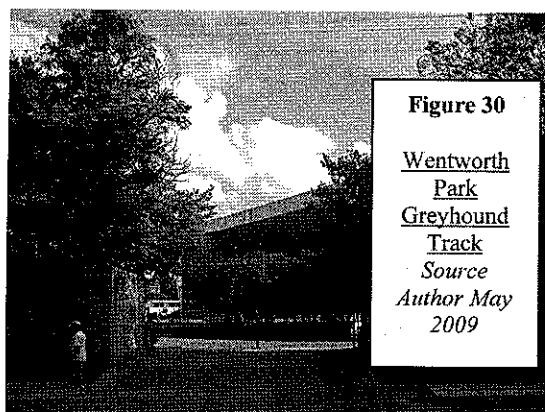


Figure 30.1
Light Rail Overpass Wentworth Park
Source Author May 2009



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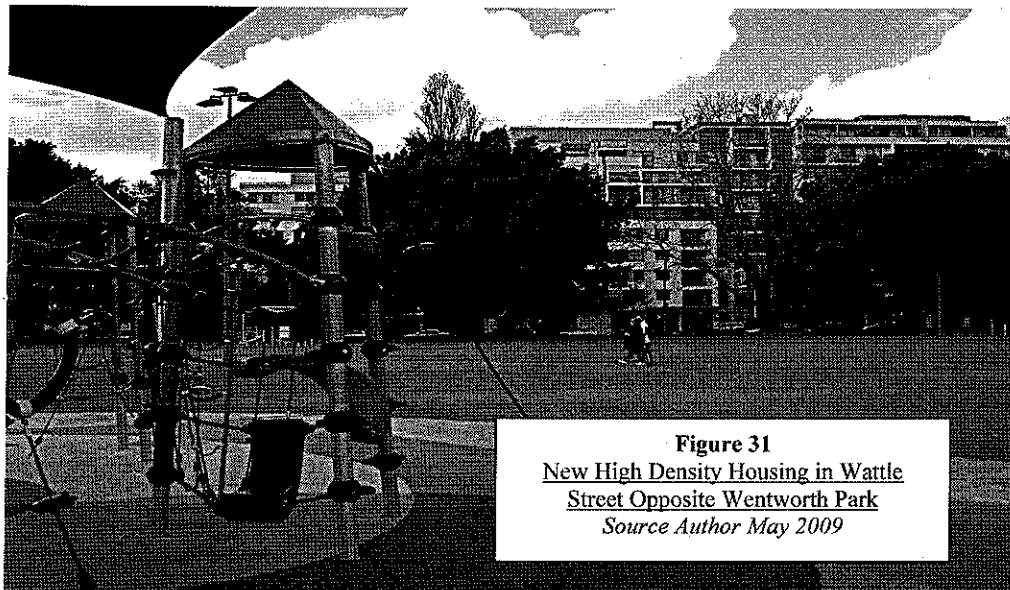
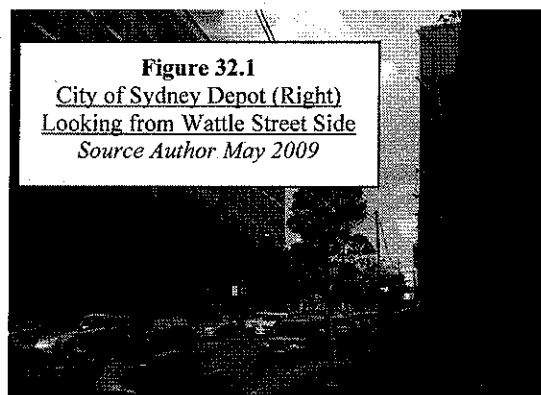
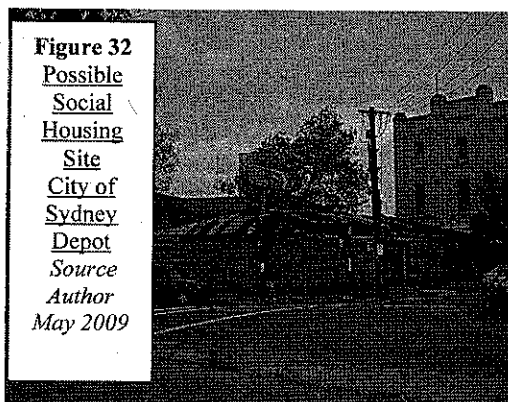


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7 The City of Sydney Vision for the Western CBD

BEFORE



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to the North
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Source
Sustainable
Sydney 2030

AFTER



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