Perth - Pedestrian "Access" More of the City

Carol Jelley

Abstract

"Perth Access – A City for People" has created in central Perth a dynamic clean and vibrant environment that is attractive for working, living, shopping and leisure. Its key objectives have been to:

- Develop more attractive, friendlier streetscapes for shoppers, pedestrians, cyclists and residents
- Ensure safer, friendlier and healthier streets for residents, shoppers and tourists
- Cater for the special needs of people with disabilities, seniors and children,
- Improve the commercial environment for the corporate sector, retailers and businesses in general
- Provide the best possible access to the city for shoppers, commuters, tourists and people on business

Pedestrians have been a major focus for Perth Access. How often have we heard the phrase "cars don't buy things, people do". It is well understood that for every journey that we make, be it by car, bus, train or bicycle, we begin or end our journey as a pedestrian. Developing the City Centre for better pedestrian access, amenity, safety, convenience and comfort is not only good from a social, environmental and equity perspective, it is also good for business.

This case study examines how one of the Perth Access projects – East End – succeeded in improving pedestrian access and amenity in the City Centre

Contact Author

Carol Jelley
Sinclair Knight Merz
263 Adelaide Terrace
Perth
Western Australia 6000

Tel: (61) 8 9268 4400 Fax: (61) 8 9268 4488 E-mail: cjelley@skm.com.au

Carol Jelley

BSc, MSc, Grad.Dip.Mgt, FIEAust

Carol Jelley is a Principal of Sinclair Knight Merz Consulting Engineers and Scientists. She has worked principally in the area of transportation planning and engineering for 24 years, initially in UK, followed by Nigeria, Trinidad, Indonesia, Kuwait and Perth. She was appointed by (Department of) Transport as Project Manager of the Perth Access project in 1998. In this role, she has been responsible for the conceptual development of each component of the project, for technical direction of design and delivery, financial management, liaison with State and Local Government and stakeholder consultation

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Introduction

The "Perth Access – A City for People" project was launched by The Premier of Western Australia and the Minister for Transport on 15 October 1997. It was designed and developed as an integrated multi modal transport plan to complement the opening of the Graham Farmer Freeway. 'Perth Access' had four key components:

- Streets for people
- Efficient public transport
- First rate access for cyclists
- Efficient traffic flows

During the two month consultation period that followed the launch, public response was generally supportive of 'Perth Access'. Early in 1998 the Minister for Transport requested Transport to co-ordinate implementation of 'Perth Access' in liaison with Main Roads and the City of Perth. Transport appointed Sinclair Knight Merz to project manage the delivery of Perth Access.

Perth Access comprised seven projects that together formed a balanced approach to transport in Central Perth – that balance being between private motorists, public transport, pedestrians and cyclists.

This case study describes one of those projects – Perth East End – with special emphasis on how pedestrians have benefited from this integrated approach.

Perth East End – Objectives

The East End of Central Perth is illustrated in Figure 1. The main land uses in the primary focus areas of the East End are low level speciality retail, (generally) low level cafes/restaurants, four hotels, five major public car parks (plus private tenant car parks), offices, two cinemas, two theatres, town hall, courthouse and Fire Station. On the outskirts of the area is the Royal Perth Hospital, St Mary's Cathedral and their respective auxiliary support buildings.

In association with the City of Perth, the main vision for the East End was a dynamic clean and vibrant environment that is attractive for working, living, shopping and leisure. The key objectives were defined to:

- Develop more attractive, friendlier streetscapes for shoppers, pedestrians, cyclists and residents
- Ensure safer, friendlier and healthier streets for residents, shoppers and tourists
- Cater for the special needs of people with disabilities, seniors and children,

- Improve the commercial environment for the corporate sector, retailers and businesses in general, and
- Provide the best possible access to the city for shoppers, commuters, tourists and people on business

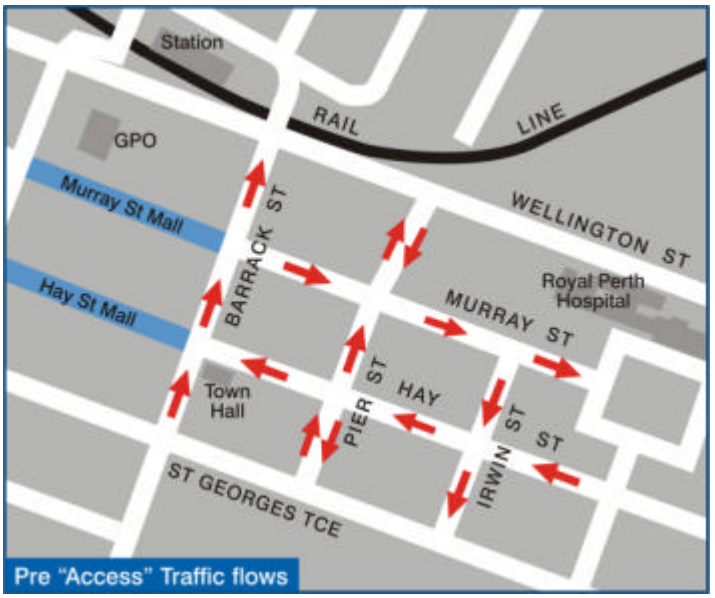

Figure 1. Perth East End

Traffic and Transport Conditions

Prior to the Perth Access works, Barrack Street was a four lane distributor carrying 23,000 vehicles per day in the central section. The eastern lane was used for short term loading and car parking outside peak periods. Footpaths on either side were narrow for the volume of pedestrians. On the west side, this caused particular pedestrian conflict with the 17 bus shelters which were the primary boarding points for all north east bus services from the City.

Hay Street was also a main westbound way traffic route, bringing cars from the east side of the City to the central City block in order to travel north over the Barrack Bridge. Hay Street had a road width of 13m which provided two through traffic lanes plus kerbside parking to both sides. Pedestrian footpaths, especially on the north side, were very narrow, less than 2.5m in places. Hay Street carried 9,000 vehicles per day just east of Barrack Street.

Murray Street was major eastbound traffic route carrying 6,000 vehicles per day. Together with Hay Street and Barrack Street, it formed a circulation system that effectively doubled the traffic movement right in the heart of the City.

Both Hay Street and Murray Street offered a 'car dominated' environment in which the noise and fumes from traffic made al fresco dining unattractive and in which crossing roads, especially for vulnerable pedestrians was particularly difficult.

The north south cross streets of Pier Street and Murray Street were also car dominated environments. Pier Street in particular, although close to the pedestrian heart of the

City, was generally trading below its potential standard and had many unoccupied tenancies.

Critical to creating a safe, friendlier, healthier and commercially sustainable environment in the East End was to reduce the use of the area for 'through' traffic movement, widen footpaths to encourage pedestrian activity and enhance the streetscape to encourage al fresco dining to attract city workers, tourists and shoppers to the area.

However, there were also some key major constraints that needed to be recognised:

- Servicing and loading in the East End was vitally important and needed to be maintained
- Major public transport routes operated along Barrack Street and Hay Street
- Hay Street and Pier Streets are major coach tourist pick up and set down areas. Historically most major coach companies used the East End as a base pick up and set down point due to the proximity of the main tourist hotels.
- The area contained five three major shopper/ short stay multi storey car parks for which traffic access needed to be not only maintained but also enhanced

The solution

Critical to improving the pedestrian environment was changing the traffic environment. To achieve this, the direction of traffic in the East End was changed to eliminate the 'crossover' traffic on Barrack Street. This is illustrated in Figure 2.

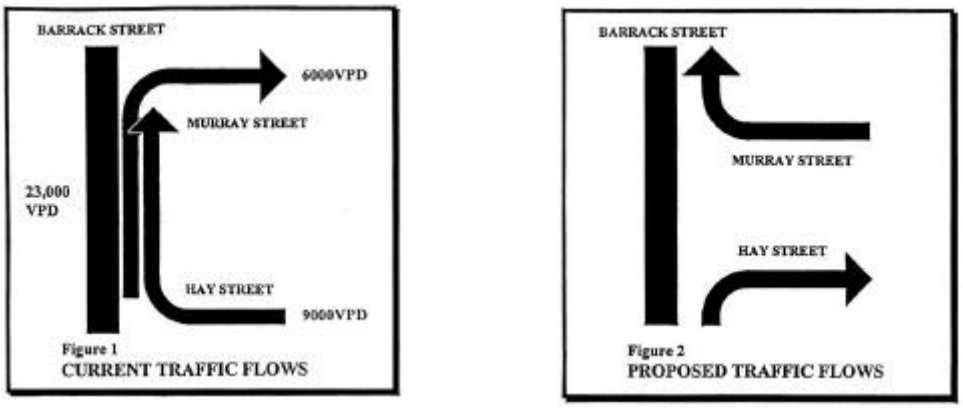

Figure 2. Changing direction of traffic to eliminate Barrack Street traffic 'crossover'

This basic change required further modification to create:

- A contra-flow bus lane on Hay Street to allow the Central City CAT service to continue penetrating the heart of the City
- Two way traffic operations on the central sections of Hay Street and Murray Street to maintain connectivity to shopper car parks
- Changing the directions of Pier Street and Irwin Street to complete the circulation

The final traffic arrangement is shown in Figure 3.

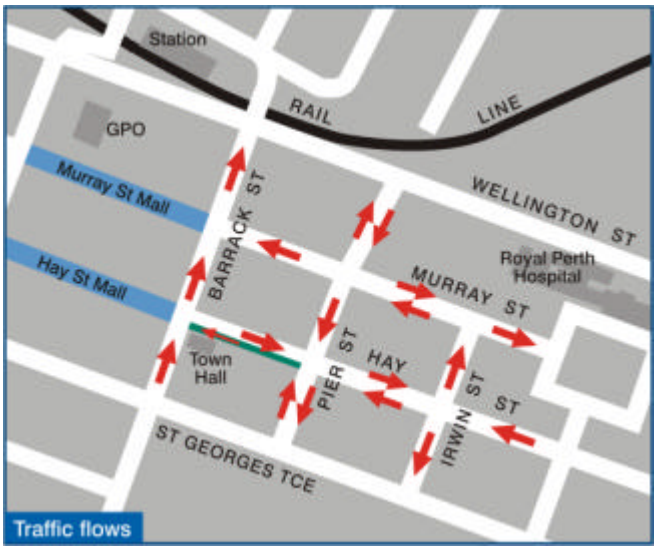

Figure 3. Final traffic arrangement for the East End

These traffic changes freed up valuable kerb space and lane space to enhance the pedestrian environment and walkability of the area. The special features are discussed in the next sections.

Barrack Street

Beginning with Barrack Street, the change to the traffic circulation resulted in being able to reduce the number of traffic lanes from four general traffic lanes to two general traffic lanes plus a bus lane. Traffic lanes were narrowed to 3m to assist with speed reduction through the area and to maximise the available width for pedestrians.

As a result of these changes, footpaths were increased in width from 4m to 7m on the west side (adjacent to the bus stops and mall) and from 3m to 4m on the east side. New bus shelters were installed to give greater weather protection and more seating for bus passengers. An avenue of trees was also planted along both sides of Barrack Street. These enhancements are illustrated in Figure 4.

Figure 4. Barrack Street enhancements

Major improvements were made at the two intersections of Barrack Street with Hay Street and Murray Street. Ramps were located in direct line with the edge of buildings to either side and tactile paving introduced in accordance with disability standards. Both signals were 'double cycled' for pedestrians which meant that a pedestrian phase is called between each traffic phase. This has reduced the amount of time that pedestrians must wait to cross Barrack Street.

Hay Street

On Hay Street, the needs for coach pick up and set down were handled by creating a coach area at footpath level, as illustrated in Figure 5. This had a number of major benefits. When there is no coach in the coach bay, the area reverts to pedestrian space. As coach demand is generally in the morning peak period up to 9.30am (with very limited demand during the day), the appearance of Hay Street has been significantly enhanced by not needing to provide indented coach bays.

Figure 5. Coach zone on Hay Street

The pedestrian space on Hay Street has been further enhanced by footpath widening on the north side. This has created new areas of al fresco dining. Public seating has also been introduced.

The new loading and servicing areas on the north side of Hay Street has been a significant success. During business hours they are used by all commercial and service vehicles for Hay Street, Barrack Street and the Mall areas. The continuous loading length means that space is flexible and efficient. Outside business hours, the space is used for short term car parking, bringing kerbside activity into the City Centre, especially at night and thus improving security and safety.

Special ACROD footpath level bays have also been introduced in Hay Street and Murray Street. These are not intended as parking bays but as pick up and set down bays for ACROD members only. In consultation with special user groups, special mid block 'informal' crossing points have been introduced. These make it easy for people in wheelchairs or pushing prams and pushchairs to cross each of the street blocks at mid-points, just as able-bodied pedestrians. This means that people in wheelchairs do not need to travel extra distance to traffic signals in order to cross a city street.

Traffic signals have been introduced at the intersection of Hay Street and Pier Street. These have an 'all red' phase that enables pedestrians to conveniently and safely cross diagonally at the intersection. The phasing has been manipulated to minimise delays for pedestrians.

Murray Street

On Murray Street, footpaths have been widened and a special cycleway has been introduced to provide 2-way access to the City Centre form the east side of the City, as illustrated in Figure 6. The footpath widening and associated tree planting and seating, has encouraged local traders to set up for al fresco dining along Murray Street.

Figure 6. Murray Street enhancements

The enhancements have brought new life and vitality to the area and strengthened its integration with the Central City area. Murray Street has been brought to a single traffic lane to reduce traffic speeds. The adjacent short term parking and taxi zones also assist in speed reductions along the street.

Pier Street

Pier Street has undergone a major rejuvenation. Footpaths have been widened, a ramped crossing zone introduced and street trees planted along the whole road. Local restaurants have introduced al fresco dining and their own special plant features to introduce a 'garden' feel to the street, illustrated in Figure 7.

New traffic signals at the intersection of Murray Street and Pier Street provide an 'all red' pedestrian phase so that pedestrians can cross in safety. The phasing has been controlled to minimise pedestrian delays.

Figure 7. Streetscape enhancements in Pier Street

Outcomes

The works in the precinct were completed between January and October 1999. The opening was concurrent with the introduction of a special maximum 40kph speed zone in the central area, illustrated in Figure 8.

Figure 8. 40kph zone

The East End has been a tremendous success for pedestrians who now have a quieter, healthier and safer environment, one in which activity has been increased through the provision of more leisure and entertainment areas, in the form of al fresco dining, and an area in which, despite the re-introduction of two way traffic movement, has become significantly easier and safer to cross streets.

This has all been achieved without compromising vehicle movement. Vehicles can still access the three main car parks in the area, servicing and loading/unloading function very well and through traffic has been provided alternative access around the precinct, via Wellington Street. Comparisons of 'before' and 'after' traffic volumes are summarised in Table 1.

Road	Daily Volume 'Before'	Daily Volume 'After'
Barrack Street, south of Hay Street	14,000	8,200
Barrack Street , Hay St to Murray St	23,000	7,400
Barrack St, north of Murray St	17,000	10,300
Hay Street	9,000	1,700
Murray Street	6,000	2,900

Table 1. Comparisons of 'Before' and After' traffic volumes in the central streets

Comparisons of pedestrian movements on these streets will be undertaken in the summer of 2000/2001. Based on the observations of activity in this area, it is likely that these are likely to be significantly higher than before the streetscape enhancements.

Conclusions

The East End project has been extremely successful in achieving its aim of creating a dynamic clean and vibrant environment that is attractive for working, living, shopping and leisure. The streets are more attractive, friendlier, safer and healthier, the special needs of people with disabilities, seniors and children have been incorporated into the streetscape, the commercial environment for the corporate sector, retailers and businesses in general has improved and access to the city has been maintained for shoppers, commuters, tourists and people on business.

Acknowledgement

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