EXTRACTING MAXIMUM BENEFIT FROM PARKING POLICY – 10 YEARS EXPERIENCE IN PERTH, AUSTRALIA

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1. INTRODUCTION

By the mid 1990’s, the Western Australian Government, most local governments, professionals and many citizens of Perth has recognised that the relentless growth of car travel, as a proportion of all travel in large cities, was not sustainable. In 1995, the Western Australian Department of Transport released the Perth Metropolitan Transport Strategy that set targets for car driving to be reduced from 63% in 1990 to 46% in 2029 of all travel (Average across Metropolitan Perth).

In 2010, the population of the City of Perth is only about 15,000 of the estimated 1.7 million people that reside in the Perth Metropolitan Area. The City of Perth is the centre of Government and the civic cultural and shopping heart of Perth. The Perth Central Area (City of Perth) is the largest employment area in Metropolitan Perth with about 120,000 employees or 16% of Perth’s employment

Between the mid 1970’s and the mid 1990’s the number of non-residential parking bays in Perth City doubled from 30,000 to more than 60,000. A consequence of this was that by the mid 1990’s more than 50% of all workers in central Perth chose to drive to work, causing severe congestion both within the city and on roads approaching the city.

It was in this context that the Perth Parking Policy was developed during the period from the mid to late 1990’s by state government agencies and the City of Perth. Following formal acceptance by the City of Perth Council and State Government, the Perth Parking Policy Management Act (1999) and the Perth Parking Management Regulations (1999) were approved by State Parliament. The Perth Parking Management Regulations and the Perth Parking Policy were published in the Western Australian Government Gazette on 16 July 1999.

The Perth Parking Policy included strict maximum limits on the amount of private tenant parking that could be provided for all development in the city. These limits could only be exceeded if the Minister for Transport on the recommendation of the Director General of Transport approved a variation. The Perth Parking Management Act also introduced a parking levy or tax on all non-residential parking bays, within the City of Perth, with few exemptions. The Act determined that all revenue raised would be hypothecated and spent
within the City of Perth for improving “public transport access, enhancing the pedestrian environment, supporting bicycle access and other initiatives which support a balanced transport system for the city” (Western Australian Government Gazette, No 137, 16th July 1999).

The objectives of the Perth Parking Policy are specifically referred to in the Perth Parking Policy. The Minister, in the second reading speech on the Perth Parking Management Bill (Hansard, 26th November 1998) stated: “The principal objectives of the Perth Parking Management Bill and Perth Parking Policy are to promote a balanced transport system to gain access to central Perth, and to limit the growth of traffic congestion and deterioration of air quality in the central area.”

The Perth Parking Management Bill was one of very few bills to have been passed unanimously by members of all five parties in the Western Australian Parliament. Notwithstanding this level of political support that was largely attained because of agreement to hypothecate the revenue for public transport, walking and cycling, there were strong objections from representatives of the business community. The Chamber of Commerce and Industry and the Property Council lobbied strongly against the Bill because of it’s taxing powers. Also many developers and their commercial consultants argued that the limitations on parking supply would hold back development in the City of Perth. As will be shown later in this paper, there is no evidence that this has occurred.

In 2007, a review of the Perth Parking Policy was undertaken by Sinclair Knight Merz. The review found:

“In general terms, the Perth Parking Policy has been found to positively contribute to state transport and land use policies to improve the economic, environmental and social health of central Perth.

Although it is not possible to quantify the contribution the Perth Parking Policy has made to a reduced car driver mode share for trips to central Perth, it has played a strong supporting role as part of an integrated package of measures that has restrained the growth of car travel to, from and within central Perth. The Perth Parking Policy has also contributed to improvement to the central Perth public transport system by providing funding for the free CAT (Central Area Transit) bus services and compensating for revenue loss from operation of the free transit zone within the Perth parking management area.

The stated objectives of the Perth Parking Policy were to support a balanced transport system for accessing the city and to:

- ensure the continued economic vitality of the City of Perth;
- improve accessibility to and within the City for all users;
- improve the air quality and the physical environment of the City;
- keep the impacts of vehicular traffic within acceptable limits;
• encourage the efficient use of parking facilities in the policy area;
• provide a framework for the development of parking facilities within the City.

Overall it is considered that the Perth Parking Policy has had a positive influence and has not acted against achievement of any of the objectives.

There was concern in some quarters that restraint on car travel by limiting growth in parking bays may impact negatively on the economic vitality of the City, however that has not occurred. Both employment and commercial floorspace have grown strongly and there is a high level of optimism in relation to CBD retail.”

2. KEY ELEMENTS OF THE PERTH PARKING POLICY

The Perth Parking Policy and Management Act were introduced as a joint policy of the City of Perth and the Western Australian State Government in 1999. The intent of the policy was to reduce car travel to/from the City of Perth through management of parking.

2.1 Perth Parking Management Act

The Perth Parking Management Act created an area called the “Perth Parking Management Area” (PPMA), which is shown in Figure 1. Within this area there is a requirement tolicence all parking except private residential; and new development proposals must conform to the Policy or have an explicit exemption granted by the Minister. The key linkage between the Policy and the Act is the requirement that each new development either conforms to the Policy or has a Ministerial exemption from the Policy. If not, the parking cannot be licensed and is consequently illegal to use.

The Act also:
• created a power to tax all non-residential parking that is used;
• requires revenue raised be held in a special fund, the Perth Parking Account, and only spent within the PPMA on matters that give effect to the Perth Parking Policy;
• created compliance and investigation powers to ensure licensing and conformity with the Perth Parking Policy.
2.2 Licensing of Bays

The Perth Parking Management Act requires that if parking for any purpose other than private residential is provided within the Perth Parking Management Area, the owner must hold a Perth Parking licence and, except where exemptions are granted, must pay an annual licence fee per bay used. The requirement to licence applies to on-street as well as off-street parking.

An important aspect of this policy is that only parking bays used need to be licensed. Owners of parking can decide to de-commission parking bays, declare them not in use and ensure they are not used. No license fee applies to these bays. This aspect of the Act is rigorously enforced and significant fines apply, if necessary, on a daily basis if owners are found to be using unlicensed bays or providing parking without licence.

There were 63,000 non-residential bays in Perth City in 1999 when the Act was introduced. However only 57,000 were licensed. By 2006/07 there were still just under 58,000 bays licensed for use. This reduction of parking supply of about 10% when the parking policy was introduced had an immediate impact in terms of availability of parking and is considered to have contributed to lower levels of driving.

2.3 Licence Fees

Licence fees are applied to all types of parking, other than residential parking, and bays that are exempt under the Act. They apply to both off-street and on-street parking, public and private parking and long term and short term parking. Exemptions apply to bays used for loading, public transport,
emergency services or disabled parking and in parking facilities that have five parking bays or fewer. This latter exemption was introduced to reduce administration and limit objections from small business owners. These exemptions have resulted in approximately 30% of license holders paying no fee. On the other hand 80% of total revenue comes from just 140 licence holders.

The current licence fee per bay (2010) is $598 per annum for tenant and long stay public parking and $567 per annum for short stay public parking. This is less than the $2000 per bay that applies in the Sydney CBD and North Sydney, where the levy excludes on-street and retail customers or the $860 per bay in central Melbourne, where the levy applies only to long stay parking. In Perth, about $30 million per annum in revenue is collected from car park licence fees.

2.4 Public Parking

There is no maximum or minimum level of public parking specified in the Perth Parking Policy. However no additional parking is permitted in certain zones as shown in Figure 1. The Perth Parking policy defines long and short stay parking facilities as follows:

- **Short stay public parking facilities** Generally available to the public, where at least 50% of vehicles stay less than 4 hours and at least 90% stay less than 6 hours.
- **Long stay public parking facilities** Generally available to the public without time constraints.

The intention of this zoning is to keep the central pedestrian priority zone as free from traffic as possible and to limit all future long stay parking to the periphery of the CBD. It was not considered necessary to specifically limit the demand for public parking in a mature city centre such as Perth, as there are limited areas where public parking can be provided and there is a reasonable balance between the cost to provide public parking and the price charged to make a profit.

2.5 Tenant Parking

The Perth Parking Policy sets both desirable and maximum amounts of tenant parking that can be provided when development occurs within the Perth Parking Management Area. No minimum level of parking is required. The amount of parking that can be provided relates directly to the surface area of the lot or lots on which development is situated and the importance of the street from which access is provided to pedestrians, not the amount of development in square meters of proposed retail and office uses. The intention is to create a sustainable limit to the number of tenant parking bays.
within the central area, regardless of the density of development and to improve pedestrian amenity.

In the CBD area with access to parking from busy streets, up to 200 parking bays per hectare of land footprint is permitted. Outside of the CBD, slightly higher levels of parking are permitted. The Sinclair Knight Merz Review of the Perth Parking Policy (2007) has examined a number of case studies that demonstrate that this maximum tenant allowance for parking is equivalent to 0.4 to 0.6 parking bays/100m² of gross floor area (GFA) for high density buildings in the CBD, but less in the peripheral areas, due to lower density development. The following case studies show the amount of parking permitted based on the Perth Parking Policy for a CBD site (case study 1) and a peripheral site (case study 2) and how it relates to the amount of parking per 100m² of GFA.
### Case Study 1-140 William Street
- **Location** – CBD adjacent to central railway station
- **Type of Development** – 20 storey office with ground floor retail
- **Site Area** – 0.84 Ha
- **Maximum Parking Allowance** – 168 bays
- **Approximately 40,000m² GFA** – 0.42 bays/100m² GFA

### Case Study 2 – 18-24 Parliament Place
- **Location** – West Perth (Periphery of CBD)
- **Type of Development** – 8 storey office
- **Site Area** – 0.21 Ha
- **Maximum Parking Allowance** – 56 bays
- **Approximately 4280m² GFA** – 1.3 bays/100m² GFA

### 3. EMERGING TRANSPORT TRENDS – HOW THEY INFLUENCE AND RESPOND TO PARKING POLICY

It has long been known that a generous supply of parking, particularly free parking, can encourage more car driving and, as a consequence, reduce the amount of walking, cycling and public transport. Similarly, trends to increasing levels of car driving can result in planners mandating that more parking is required. This in turn can result in more car driving.

This was the cycle of events that occurred in Perth from the 1960s to the 1990s. The Perth Parking Policy was a deliberate policy intervention to reverse this cycle. Limiting the amount of parking and factoring in a price increase acts as a disincentive for some people to drive. Over time, this can result in reductions in car driving and an increase in the proportion of travel by walking, cycling and public transport.

There is clear nexus between parking supply and price and the amount of driving to a centre. Although parking has long been recognised as a potential lever or control on the amount of driving, policy makers in central Perth were reluctant to use it prior to late 1990s. The "conventional wisdom" was that any restraint on parking supply would be seen as a restriction on access that would limit the growth potential of the centre and have a negative effect on business. The following sections show how the introduction of the Perth Parking Policy reduced car parking supply, increased the price of parking, lowered car use and increased the use of public transport.
3.1 Parking Bays Available For Use

The figure below shows how the number of non-residential parking bays available for use in Central Perth increased steadily and sharply from the mid 1950s to the mid 1990s.

With the implementation of the Perth Parking Policy in 1999 and the licensing of parking bays, the number of bays available for use reduced by about 10% to a level that last existed prior to 1990. The lower level of parking has been maintained since that time.

3.2 Price of Parking

The price of parking has increased substantially in Perth over the last ten years. Hourly on-street parking is currently $3.30 per hour and daily parking in off street car parking stations in Perth varies from around $15.00 to $20.00 on the periphery of the CBD to between $20.00 and $50.00 in the heart of the city.

The increase in all day parking fees has resulted in a reduction in all day parking and the availability of more bays for short stay parking.
3.3 Less Car Driving and More Use of Public Transport

The Australian Bureau of Statistics journey to work data has shown there has been a significant shift to less car driving and increased public transport use for journey to work in central Perth. In the mid 1990s 50% of journeys were as car drivers with 35% by public transport. By 2010, these percentages had switched with over 50% of the trips to work in central Perth now by public transport and 35% as car driver.

3.3.1 Less Car Traffic on City Streets

Traffic volumes on streets providing access to the City reduced by between 3% and 20% over the three years following the implementation of the Perth Parking Policy. Since that time, traffic volumes on city streets have continued to decline. Traffic volumes on the Causeway across the Swan River to central Perth has reduced from 73,000 vehicles per day to 58,000 vehicles per day over the last decade. Traffic volumes in Perth’s two major north/south city streets (Barrack Street and William Street) have halved from over 40,000 vehicles per day (combined) to around 20,000 vehicles per day.

3.3.2 Large Increase in Use of Public Transport

Over the 10 years from 1999 to 2009 public transport use in Perth has increased by 67%. This is over three times the rate of population growth and contrasts to the reduction in car travel to central Perth.

The Perth parking licence fees have been used to subsidise the free transit zone (FTZ) within the City of Perth and the free Central Area Transit (CAT) services within the City since the introduction of the Perth Parking Policy in 1999. The three CAT routes provide a comprehensive distribution service within the City (routes shown below). The following increase in use of these services has been recorded:
Free Transit Zone Bus Services (2000 – 2008) +57%

CAT Services (2000 – 2008) +83%

3.4 Economic Vitality of the City

When introduced in 1999, an important objective of the Perth Parking Policy was to ensure the economic vitality of the City of Perth. Since the time of the
introduction of the Perth Parking Policy both floor space and employment in
the city has grown. Employment has grown by 30% from 91,000 in the mid
1990s to over 120,000 in 2009.

The review of the Perth Parking Policy undertaken by Sinclair Knight Merz in
2007 concluded:

- “Restraint on the growth of car parking does not seem to have limited the
  potential of the city centre to grow economically”
- “The Perth Parking Policy is likely to have contributed to lower traffic
  volumes on city streets with lower levels of congestion than would have
  been the case without this influence”

4. MOVE TO MORE SUSTAINABLE ACCESS AND MOVEMENT
POLICIES AND STRATEGIES

The success of the Perth Parking Policy in reducing car travel to central Perth,
without discouraging overall travel to the city has encouraged decision makers
to endorse more sustainable access and movement strategies.

Twenty years ago the Perth City Council was reluctant to improve any
restraint on the growth of car travel to the city, fearing it would impact
negatively on the economic health of the city. In the 1980s the council, as the
major provider of public car parking, encouraged people to drive to the city,
under the slogan “Your Car is as Welcome as you are”.

There is now a more mature understanding and awareness that less car
access can improve amenity and that good quality public transport can
improve accessibility and maintain a strong local economy. In recent times
there has been no overall increase in parking and parking prices in central
area public car parks have changed to make all day parking less attractive
and to discourage its use. This has assisted in reducing peak hour commuting
by car and has freed up well located car parking spaces for more needed and
valuable business and shopping parking.

In February 2010, the Perth City Council released for public comment “An
Urban Design Framework – A Vision for Perth, 2029”. The document sets out
objectives and strategies that will enable the city to grow its resident,
business, shopping and entertainment base in a sustainable way. It
recognises that for this to occur, continued improvement in amenity at the
street level within the city and improved accessibility to the city are essential.

The Urban Design Framework advocates a “people first, public transport
second and cars last” approach to transport planning and notes that “in the
age of increasing energy costs, there will be a continued shift away from the
private motor car as the means of access to the city”.

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The City of Perth has recently commenced a major urban enhancement project designed to stitch the city street grid back together and make the streets more attractive for pedestrians to use and enjoy. The one way street system that was introduced in the 1970s to increase capacity for cars will be removed with most streets reverting to two way traffic. The Council has recognised that a continuance of improved access to the City by public transport is an essential component of its new street plan. It has engaged with state authorities including the Public Transport Authority and the Department of Transport with a view to building in priority for public transport vehicles along key routes within the City.

Detailed Paramics modelling has been undertaken by Sinclair Knight Merz for the entire central Perth area. The modelling has shown that the proposed two way street network with priority public transport lanes and improved lower waiting times for pedestrians at traffic signals is feasible. Key findings from the modelling show, that with the same level of traffic:

- The vehicle kilometres travelled would be 8% less in the AM peak period and 16% less in the PM peak due to less circulations travel patterns;
- The overall traffic speeds on the network would be about 20% lower, including waiting time at intersections;
- The overall vehicle hours travelled within the system would increase on average about 10%.

The analysis has shown that there are opportunities for further reduction in travel from a combination of mode shift to public transport, walking and cycling for trips to the city and within the city and a further reduction in through traffic. The modelling shows that the most likely outcome is a reduction of overall traffic within Perth CBD of between 5% and 10%. This would result in a reduction in vehicle kilometres travelled of between 15% and 20% with slightly lower speeds than at present. Bus speeds on major routes through the city would stabilise at about 16kph and reliability and punctuality of service would be significantly increased.

To process this initiative, the City of Perth has drawn up a “Transport Plan Strategic Agreement” for Perth City Streets in collaboration with the state agencies responsible for public transport planning and delivery and road traffic regulations, and with the neighbouring Town of Vincent. This plan lays out a three to five year implementation timeframe. At the time of writing this paper, the strategic agreement is being formally considered by the City of Perth, the Town of Vincent and State Agencies.

The Perth City Streets initiative is a result of changed thinking. The Perth Parking Policy was a foundation stone in this new policy development designed to achieve sustainable growth of Perth City with improved amenity on city streets, a vibrant economy and less cars in the city.

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5. POLICY EXPANSION BEYOND CENTRAL PERTH

As the successes of the Perth Parking Policy have become known, State Government planning agencies and local governments have begun to examine the potential for similar policies to be introduced in regional centres. Demand management policies have existed for a number of years at established universities such as UWA and Curtin and in established city centred such as Fremantle. However, more recently, major growth centres such as Stirling and Murdoch have identified parking policy to be a fundamental component of their overall access and transport policy.

5.1 Case Study – Stirling City Centre

The Stirling City Centre Alliance is planning the development of a city centre in the area around the Stirling Train Station, that is located 9 kilometres and 7 minutes travel distance by train from central Perth. The Alliance’s vision is “A sustainable 21st century city – a place for everyone”.

The area immediately around the train station remains largely undeveloped because part of it was used for landfill and the remainder was mixture of land reserved for future major road expansion and land that was relatively expensive to develop. The area surrounding the proposed city centre has been fully developed as a mixture of office, retail, light industrial and residential uses and there is already high levels of congestion on the regional road network.

Strategic transport planning for the city centre has established the following high level access principles:

- High proportion of access to the city centre by public transport, walking and cycling;
- Convenient safe cycle parking throughout the city centre;
- Convenient safe, secure cycling, pedestrian and access routes to the city centre;
- Fine-grained street network for access by walking, cycling and cars;
- Direct and legible walking routes to Stirling train station;
- Multiple access options for motorists to car parking;
- Good pedestrian, cycling and vehicle wayfinding signage system
- A legible, easy to comprehend system of public transport routes to, from and between the Stirling and Glendalough train stations and the city centre.
The strategic road network within the City Centre and the access to/from the Freeway has been planned and agreed by the Stirling City Centre Alliance. This road network has a finite capacity that has been estimated to be about 12,000 vehicle movements per hour within the City Centre. This translates to up to 140,000 vehicle movements per day, including about 30,000 to 35,000 through vehicle movements and 105,000 to 110,000 vehicles accessing the City Centre each day.

An access and parking strategy has been undertaken for the Stirling Alliance by Sinclair Knight Merz that has established that if restraint on parking is not applied it will be necessary to significantly limit the commercial and retail floor space and dwelling units within the City Centre to below that currently envisaged by the Stirling City Centre Alliance.

The proposed parking strategy contains the following recommendation on the maximum permitted level of parking:

- Residential - 1.0 bay per unit on average for each dwelling.
- Office - 1.0 bay/100 m$^2$ GFA
- Supermarket and Large Retail - 4.0 bays/100 m$^2$ GFA
- Small Main Street Retail - 2.0 bays/100 m$^2$ GFA

The strategy also recommends that the sale, lease or rental of parking bays should be unbundled from the sale or rental of residential properties.

The strategy notes that a further level of regulation is required to ensure the total level of parking on an area of developable land does not exceed a threshold level. This is required to ensure very high density office or retail development does not result in excessive levels of parking and traffic, even though parking ratios meet the criteria specified above.

It is proposed that the maximum amount of parking on all land within the city centre be regulated on a hectare of land basis, in a similar manner to the Perth Parking Policy regulations. The strategy recommends a maximum of 250 bays/Ha for all land within the City Centre, except within the proposed high density precinct around the Stirling Train Station where a lower level of 200 bays/Ha is recommended.

A range of parking management measures have been proposed to ensure that the majority of parking will be short term to meet the needs of business and shopping visitors rather than long term commuters. The strategy recommends that pay parking be introduced within the City Centre (both on-street and off-street) as soon as possible and that the fees set be high enough to encourage some car drivers to switch to public transport or non-motorised travel or travel at a different less busy time of the day. This will assist in
ensuring there is a reasonable level of parking availability at convenient locations at most times.

In addition to these measures a cash-in-lieu and a parking levy are proposed with a primary purpose to support a demand management framework that reinforces regulations designed to limit supply. A secondary, but nonetheless important purpose is to provide a source of funds for alternative transport infrastructure and services that will assist in reducing the level of car travel to, from and within the centre to sustainable levels.

It has been proposed that all revenue obtained from these measures is hypothecated to specific measures that improve access to and within the City Centre, including by public transport, walking or cycling or in some instances for provision of public parking.

The cash-in-lieu proposal recommended in this report has been designed to significantly reduce the overall cost to development, whilst at the same time providing funds for alternative transport including public transport.

6. CONCLUSION

The Perth parking policy is a joint policy of the City of Perth and the State Government of Western Australia. The main elements of the policy are:

- Licensing of all non-residential parking with an annual licence fee payable for public and private off-street parking and public on-street parking administered by the City of Perth. A few exemptions apply. All fees are paid into a trust account and all funds must be used for improvements to public transport or the pedestrian environment within the City of Perth. To date, all revenue has been used to fund revenue foregone from operation of the city centre free transit zone and the operation of three Central Area Transit (CAT) services that provide free travel between the major bus and rail stations and important business, education, medical and tourist precincts.

- Establishment of strict legal maximum levels of parking for new non-residential development within the city, based on the ground floor space of developable land.

- Establishment of three parking zones to control public parking — a pedestrian priority zone where no parking is permitted; a short stay zone where long stay (all day) parking is not permitted; and a general parking zone, which is on the perimeter of the city.

Ten years after implementation of the Perth parking policy:

- There has been a 10% reduction of parking within the City of Perth;
the mode share of journey to work in central Perth has shifted significantly from car to public transport – car 17% down and public transport up 27%;

• car travel on city streets and on approach roads to the city has decreased;

• the city has continued to experience strong economic vitality and growth of both employment and retail.

The success of the Perth Parking Policy in reducing car travel to central Perth, without discouraging overall access to and activity within the city has encouraged decision makers to endorse more sustainable access and movement strategies.

The City of Perth has recently commenced a major urban enhancement project designed to stitch the city street grid back together and to make the streets more attractive for pedestrians to use and enjoy. The one way street system that was introduced in the 1970s to increase capacity for cars will be removed with most streets reverting to two way traffic. An integrated part of this plan is a network of strategic public transport priority routes that will improve overall accessibility and enable the city to grow. This is a reversal of the policies of the 1970s and 1980s that were based on more parking and more car travel to the city.

Parking policy is set to play a greater role in reducing demand for car travel to strategic regional centres outside of central Perth. Reduced levels of parking and traffic and improved public transport is now considered essential to enable emerging regional centres to attain their full development potential.
Bibliography


