

# RESIDENTIAL PROPERTY VALUES AND MASS TRANSIT SERVICE IN BRISBANE

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## ABSTRACT

*The paper reviews the relationship between mass transit service and property values in Brisbane. The results indicate a clear preference in terms of observable price premiums for mass transit among attached housing markets, but results in the traditional detached housing market are less clear-cut. Median income housing consumers are another market segment clearly prepared to pay a premium for mass transit access.*

**Keywords:** Public transport, Brisbane property markets, integrated land use/transport, transit oriented development, TOD, locational theory

## INTRODUCTION

### Evolution of urban form

Australian cities in the colonial period were based around horse and pedestrian transport, while suburban tramways and railways served a commuting public as the population grew (Troy, 2004; Forster, 2004).

A movement began to re-locate middle class Australia from the overcrowded, unsanitary and dangerous inner city locations, into semi rural locations, accessible by rail or tramway and containing adequate provision for the spatial needs of large homes, gardens and sanitary on-site sewage treatment. Hamnett and Freestone (2000: 10) discuss the desire at that time for “healthy” lifestyles in suburban environments. They indicate that combined transit and suburban development approaches were an innovation that served cities and residents well.

Mumford (1961: 491) looked at this phenomenon in an international and socio-cultural context. He suggests that in England, and in other locations where rail-led “Garden City” or “Garden Suburb” development was adopted, land values climbed in the areas that offered better rail access and were more accessible.

Peacetime existence after the second war saw a population boom, necessitating the expansion of new suburbs, but also creating a situation of scarcity in public resources that

saw rail and tram transport dropping out of the development equation. (Laird et al, 2001: ch1)

The Australian “Garden Suburb” became the Australian suburb, and public transport construction was undermined and abandoned in favour of road construction. Forster (2004: 18) has suggested that the early post war decades saw a fundamental shift in the very structure of the Australian city. Whereas Australian cities were centralized and “star-shaped” in earlier transit-oriented incarnations, the new auto-city became formless and rambling. Road building path-determinism unfolded through the 1970s and 1980s. Auto oriented planning spawned auto-dominated landscapes.

Only very recently has the transport/land use/spawl nexus come back into genuine consideration - coinciding with inner-suburban revitalisation. The discrepancy between the sophistication of transit networks and the level of investment in public transport in Australia, when compared to the situation in Asian, European and even US examples is only now coming to light through the media. A nascent change in momentum for public transport investment is emerging at a time when city and regional planning, in examples such as; *SEQ Regional Plan* (OUM, 2006) and *Melbourne 2030* (DOI, 2002), has awoken to new realities. Awareness seems to be growing that despite the proverbial endless expanses of land in Australia, the march to service, sewer and landscape across the horizon at the same rate of low-density suburban form is running afoul of time, changing tastes and preferences, lack of suitable paddocks and water resources, and the iron economics of accessibility with respect to commutable distances. Ease of access to employment, health and social services is re-emerging as a key issue. In addition, sources such as Forster (2004: 206) indicate that there is now an awareness of a problematic concentration of low-income households in the outer suburbs of Australian cities. He suggests that these are locations in which first homebuyers in particular are trading amenity for affordability, largely because the more accessible suburban locations are simply high-priced. Living on the fringes has in the past come at a price discount that enables many first home buyers to make their purchase, but the economic attractions of living in locations with a relative lack of services are increasingly under pressure from accessibility and transport cost considerations (Dodson & Sipe, 2006).

One purpose of the following study is to determine whether Brisbane home purchasers are pricing suburbs with accessibility to rail transit in line with the theories and practical realities of locational advantage.

### **Property market trends and undercurrents**

The Australian Housing and Urban Research Institute (AHURI, 2000: 5) has discussed the profound effects that changes in demographics, the economy, culture and prevailing technologies can have on society, households and individuals. They provide insight on the changes that occurred through the 70’s, 80’s and 90’s – indicating that between 1971 and 1996 new households formed at a faster rate than that at which population growth occurred. Statistics show that in this period, the size of the average Australian household

fell from 3.3 people to 2.7– and this change is attributed largely to growth in single-person households (AHURI, 2000: 5).

Demographer and property commentator Bernard Salt (2003) has highlighted some of the changing dynamics of the Australian urban population and landscape. He suggests that momentum in recent decades for living and development in the inner-city and the middle-ring suburbs represents a “...*catch-up period*...” in which the development industry is seizing on a market demand for apartment living that was previously ignored (Salt, 2003: 8). But the development sector is also acting on broader cultural and social preferences, not just movements in markets – and this is reflected in the advertising approaches adopted by the industry.

Salt (2003: 134) has also identified the propensity for apartment living to filter out into the suburbs as development cycles are shaped by the newer planning approaches. He recognizes that suburban apartment development has been encouraged by the newer planning schemes based around increased densities in areas with stronger infrastructure and service provision. He also suggests that a new wave of notable development enterprises has moved into the realms of big business on the back of successfully understanding these changes in social preference “... *in no less a way than Albert Jennings built his fortune on the values that centred on the quarter-acre block.*” (Salt, 2003: 134)

These trends are mirrored in other English-speaking societies. Banister (2003) provides an estimate that by 2016, 36% of all households in the UK will be of a single-person type, and suggests that transport systems and planning as well as land development patterns will need to adapt. (Banister, 2003: 5) While in the US, studies have indicated that somewhere between 30% and 55% of new housing moving forward might be marketed and designed for the segment that prefers “...*residences in dense, walkable neighbourhoods*” (Dittmar and Ohland, 2004: 12).

Property professionals and developers, in adjusting to new demographic and cultural trends, need to actively re-consider the opportunity and underlying value of suburban locations with strong transit access.

## **TRANSIT AND PROPERTY VALUES – THE CURRENT KNOWLEDGE**

### **Locational theory – A key role for transit**

Recent investigations into land value and accessibility lend credibility to the suggestion that public transit, rather than private auto accessibility, is the key driver of residential locational advantage. In other words, transit confers a locational advantage over and above that provided by the private vehicle. North American academic Robert Cervero has

carried out a series of ground breaking case studies and research projects into the role that public transport infrastructure plays in locational advantage - incorporating evidence on land value premiums associated with public transit accessibility and service.

Robert Armstrong's (1994) investigation into land value impacts of commuter rail in the Boston, Massachusetts area concluded that there were some negative impacts associated with being too close to rail infrastructure, mainly due to station-related noise and traffic. On a broader scale, he contends that theoretically at least; *"Proximity to rail stations may also confer certain benefits, such as improved accessibility to commercial centres. In the case of heavy rail rapid transit, this has been observed to result in increased residential property values"* (Armstrong, 1994: 88).

Benjamin and Sirmans (1996) express a clear expectation that better mobility at transit-served locations should result in improved rent and therefore in higher property values. *"Changes in property rents and values may arise with increased access, lower commuting costs, and/or potential changes in property utilization. Changes in value are important because they typically occur faster than changes in land use and may thus influence or change urban form. ...Research confirms that metro systems have an impact on property values"* (Benjamin and Sirmans, 1996: 2).

Ryan's (1999) investigation into the transportation-land use connection explores the theoretical expectations: *"In hypothesizing about how new transportation facilities affect property values, researchers generally assume that nearby firms or households experience reduced travel costs and that travel cost savings allow firms or households to bid up property values. This hypothesis is based on the assumption that new facilities connect households or firms to the destinations they need to reach (for example, households to employment locations and firms to export nodes, services and information)"* (Ryan, 1999: 413).

In a 2002 study of rail and light rail transit impacts in San Diego County, Cervero and Duncan suggest; *"If rail-transit investments confer benefits, real estate markets tell us. As long as there is a finite supply of parcels near rail stations, those wanting to live, work, or do business near transit will bid up land prices. The benefits of being well connected to the rest of the region – i.e. being accessible – get capitalized into the market value of land. As the cliché goes, rail-served properties have 'location, location location': residents can more easily reach jobs and shops; more potential shoppers pass by retail outlets; and for employers, the laborshed of workers is enlarged"* (Cervero and Duncan, 2002: 1).

## **Measuring land value premiums - contributing and complicating factors**

Although there is a sound theoretical and common sense basis for the expectation that property value premiums will be associated with transit-driven locational advantage, the

literature has provided the suggestion that any number of complicating factors may influence the magnitude and observability of property price premiums.

Factors contributing to generalized variations in property and land values (not related to transit) might include: the regional economy and sub-regional economic variation; planning and zoning issues; property type and “product” type (i.e. up-market, low-cost or mid-range?); design, architecture and build quality; socio-economic aspects of the suburb in which the property is situated; age of buildings and/or the suburb; property market cycles; as well as the position, outlook and setting of the properties.

Transit-related complicating factors have been identified variously in Cervero (1998), Cervero and Duncan (2002), Vuchic (2005) and Dittmar & Ohland (2004). The transit-based factors that might influence amenity and property value include:

- local government planning policy and institutional factors
- the role transit plays in the land-use vision
- the ability of private developers to capture value associated with transit
- density and centralization
- levels of car use and attitudes toward transit in the community
- the quality, speed, regularity and reliability of transit services
- urban reference points (i.e. is it a CBD-oriented metropolis? or are there other secondary centres that influence travel behaviour?)
- maturity of the transit system
- market distortions in the economics of transit and especially of car use - which is in actuality heavily subsidized (primarily through road expenditure, but also via public-sector absorption of on-costs from “externalities” including environmental impacts and road carnage).

When analyzing the observed relative property values associated with transit access, it is important to keep these many complicating factors in mind. In order to best deal with these factors, the research effort here focuses on mass transit (rail and busway services) and does not feature a look at the impact of standard suburban bus routes operating in mixed traffic. The Brisbane Busway system has a number of unique attributes that place it in the mass transit category. This is primarily because of speed and reliability in scheduling due to dedicated right-of-ways (i.e. the Busway runs at relatively high speeds on its own road, and does not fight against traffic jams on the regular road network). In addition, the quality of station infrastructure places the Busway in the mass transit category. Busway passengers depart from architect-designed stations rather than roadside bus stops.



Mater Busway Station, Brisbane 2006

## **METHODOLOGY – NEW APPROACHES FOR THE ANALYSIS OF TRANSIT AND PROPERTY VALUES**

### **Aim**

The main question to be answered in the research was: Among comparable suburbs or comparable housing consumers in Brisbane, is there any residential property value sale premium associated by service mass transit?

### **The suburb-by-suburb method**

Analysing property values on the basis of suburb-by-suburb comparison should prove meaningful and allow for more practically driven conclusions and recommendations. Researchers have often looked at the “short walk” distances of under 400m from rail stations as the hot spots for higher property values. The “400 metre rule” has often been applied in connection with the study of higher-density style residences or commercial and retail property. Alternative research and theory points on the other hand to the mixed-mode nature of home to work travel, indicating that it should be acceptable to look beyond the immediate area around a train station for a practical catchment zone. As an example, Armstrong’s (1994) study concluded that the impact of rail service on residential property values was derived “...*primarily from the perceived effect of having a station in the same community as the residence, regardless of the actual travel time involved in accessing the*

*station from particular individual locations within the community...*" (Armstrong, 1994: 95).

Additionally, the suburb offers a recognizable location and a statistical unit for which a significant amount of information and data is readily available.

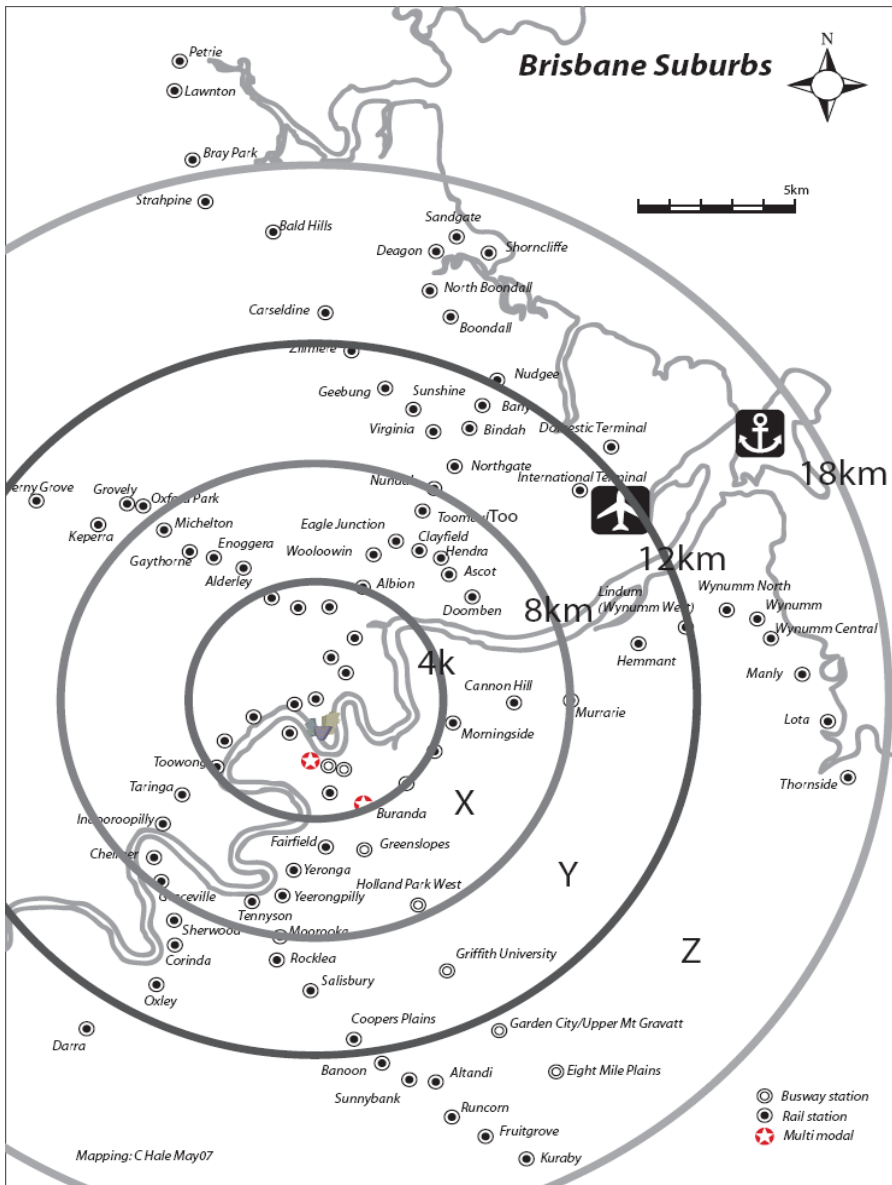
### **PRD data**

Quantitative data on median property values for Brisbane suburbs is readily available through various sources. PRD Research have regularly released suburb-by-suburb breakdowns of property market dynamics and property values. This resource was utilized in a comparison of residential property values in mass transit-serviced and non transit-serviced suburbs in Brisbane. The PRD Suburb Profiles (PRD, March 2005) take a median sale value for each suburb from the sample of recorded sales in a 6 month period leading up to the end of the most recent quarter (depending on the period of publication). In the data utilized for the purposes of this study, the relevant period was the 6 months up to March 2005. In future, the adaptation of later data sets from the same source may allow time-tracking of changes in relative values. For the purpose of this initial paper, however, only a static analysis has been applied.

### **Locational disaggregation**

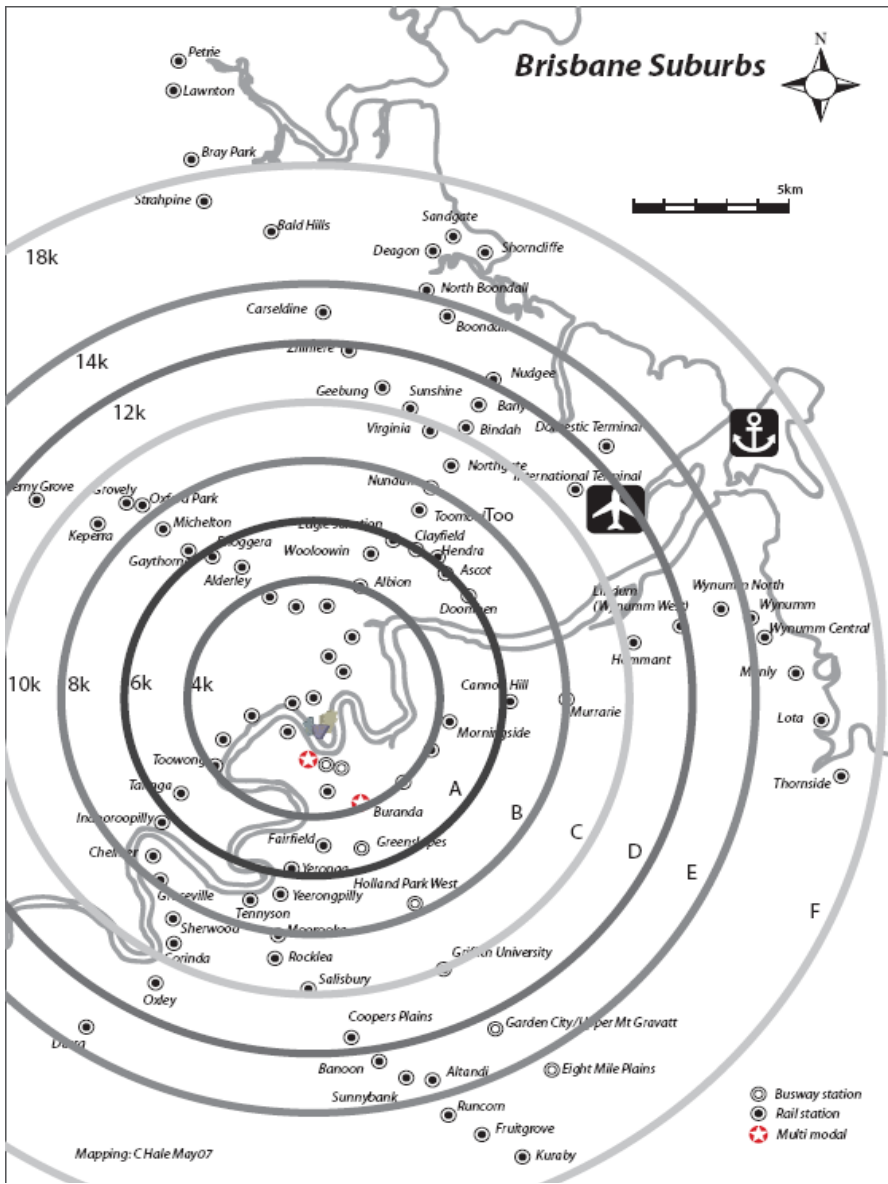
Suburbs were grouped according to radial distance from the Brisbane CBD in zones of varying diameter. Two sample sets were analyzed, in the form of a 3-zone model (Figure 1) and a 6-zone model (Figure 2). The grouping of the sample suburbs and their data in this manner should allow for meaningful comparisons of relative property values within the zones and between those suburbs in a particular zone that have rail or Busway access and those that do not.

**Figure 1: Brisbane suburbs – 3 zones**





**Figure 2: Brisbane suburbs – 6 zones**



## **Market segments & comparability**

No attempt was made to look in detail at the different housing styles within the suburbs. Aspects such as age, construction type, size, number of rooms and bathrooms were not investigated. The assumption here is that generally speaking, there is some level of homogeneity of housing types within individual suburbs. The analysis of like or comparable suburbs was the goal, as far as possible. As such, an initial culling of “non-standard” suburbs from the sample was carried out. Suburbs were deemed to be non-standard if they display the following characteristics: seaside location; riverside location including substantial tracts of housing with river frontage; inner-city (up to 4km radius from the cbd); pre-dominantly industrial or commercial in character; a prominent or pre-dominant rural-residential component; and suburbs still undergoing their initial phase of establishment or development. The selection of like examples would ordinarily fall to the professional judgment of a property analyst or valuer – and in this respect, a similar mainstream approach was applied. The researcher and author’s judgment has been employed in formulating the set of relevant “comparable” suburbs.

## **Socio-economic variables & income**

A second testing component focused on preference for rail transport within suburbs that display the same income characteristics. Income was held constant, with variation in home values measured across a number of locations with reference to the availability or otherwise of rail or Busway transit services. The median income band in Brisbane contains a large sample of suburbs from which to test the property value hypothesis. On the other hand, suburbs with less common income bands (i.e. – either relatively high or low incomes) represent a much smaller sample of suburbs. It was decided to focus on the median income band suburbs for this reason.

## **Derivation of indicative values within zones**

Within each zone, suburbs were tabulated according to the availability of mass transit service, and both house and unit values were entered. A simple mean of the tabled PRD sale values was taken to provide the “indicative value” of transit-served and non-transit properties within the zone. This approach was repeated for all zones, both in a three zone and a 6 zone format.

**Table 1: Example of the sampling method employed within one of the surveyed zones**

<b>Zone B - Brisbane Suburbs 6 - 8km</b>				<b>Comparative Sale Values</b>			
<b>Transit-served suburbs</b>				<b>Non-transit suburbs</b>			
	<b>Average Weekly Household Income</b>	<b>Median House Price</b>	<b>Median Unit Price</b>		<b>Average Weekly Household Income</b>	<b>Median House Price</b>	<b>Median Unit Price</b>
<b>Enoggerra</b>	\$600 - \$699	\$360,000	\$222,500	<b>Stafford</b>	\$600 - \$699	\$290,500	\$195,750
<b>Nundah</b>	\$600 - \$699	\$335,000	\$215,000				
<b>Gaythorne</b>	\$600 - \$699	\$346,250	\$207,000				
<b>Cannon Hill</b>	\$700 - \$799	\$360,000	N/A	<b>Everton Park</b>	\$700 - \$799	\$330,000	\$215,000
<b>Moorooka</b>	\$700 - \$799	\$345,500	\$207,500	<b>Gordon Park</b>	\$700 - \$799	\$402,500	\$213,000
				<b>Holland Park</b>	\$700 - \$799	\$340,000	\$228,000
				<b>Kedron</b>	\$700 - \$799	\$351,500	\$197,505
<b>Hendra</b>	\$800 - \$999	\$491,250	\$263,750	<b>Carina Carina Heights</b>	\$800 - \$999	\$338,000	\$263,000
<b>Indooroopilly</b>	\$800 - \$999	\$467,500	\$285,000				
<b>Wooloowin</b>	\$800 - \$999	\$475,000	\$218,000				
<b>Holland Pk W</b>	\$800 - \$999	\$345,000	\$239,500				
<b>Tarragindi</b>	\$800 - \$999	\$365,000	\$83,000	<b>The Gap</b>	\$1000 - \$1199	\$382,000	N/A
	<b>Zone B transit Indicative Value:</b>	<b>\$360,000</b>	<b>\$218,000</b>		<b>Zone B non-transit Indicative:</b>	<b>\$345,750</b>	<b>\$213,000</b>

## RESULTS AND DISCUSSION

Overall, the trend is toward higher capitalization among rail-served suburbs. Only two test samples (Zones D and Y - houses) proved to be very strongly counter to the simple hypothesis that there is a positive link between rail access and higher property values (at 5% level of significance). The majority of samples (11 out of 20) confirmed the simple hypothesis that suburbs with rail transit should display greater capitalization than similar suburbs without. A certain number (7) were inconclusive.

### Attached housing samples

Consumers of attached housing in Brisbane, after the test samples have been grouped according to comparable distance from the CBD, exhibit a noticeable or significant preference for rail transit access. 8 out of the 10 attached housing samples or subsets

display a significant (+5%) value premium to those suburbs with rail accessibility. The trend of value premiums is also clear in Tables 2a & 2b below.

**Table 2a: Brisbane units - 3 zone sample summary**

		<b>Transit-served</b>	<b>Non-Transit</b>	<b>Premium to transit %</b>
<b>Zone X, 4 - 8km</b>	Indicative:	\$247,250	\$227,399	<b>8.7%</b>
<b>Zone Y, 8 - 10km</b>	Indicative:	\$235,000	\$212,500	<b>10.6%</b>
<b>Zone Z, 10 - 14km</b>	Indicative:	\$217,688	\$196,500	<b>10.8%</b>

This result may be read to confirm widespread views that unit and apartment residents naturally prefer a low maintenance lifestyle, with a preference for public transport. The magnitude of premiums is worthy of note, with many of the subsets displaying premiums of between +8% and +30%. The research outcomes confirm attached housing consumers as the premier market for property with superior transit service. Looking forward, we might assume that further relative growth in the attached housing market segment, of the like that has occurred through the 1990s and early 2000s in Australia and in other western locations, would increasingly boost the demand for housing with access to higher quality transit service.

**Table 2b: Brisbane units - 6 zone sample summary**

**Unit Median Values by Zone**

		<b>Transit-served</b>	<b>Non-transit</b>	<b>Premium to transit %</b>
<b>Zone A, 4 - 6km</b>	Indicative:	\$254,750	\$229,875	<b>10.8%</b>
<b>Zone B, 6 - 8km</b>	Indicative:	\$218,000	\$213,000	<b>2.3%</b>
<b>Zone C, 8 - 10km</b>	Indicative:	\$227,000	\$209,750	<b>8.2%</b>
<b>Zone D, 10 - 12km</b>	Indicative:	\$240,000	\$252,000	<b>-4.8%</b>
<b>Zone E, 12 - 14km</b>	Indicative:	\$228,375	\$213,300	<b>7.1%</b>
<b>Zone F, 14 - 18km</b>	Indicative:	\$223,500	\$171,000	<b>30.7%</b>

## Traditional (detached) housing samples

Consumers of traditional detached housing in Brisbane exhibit only mixed or limited preference toward mass transit access when grouped according to comparable distance from the CBD. Only 3 out of 10 samples or subsets display a significant (+5%) value premium to those suburbs with mass transit accessibility. On the other hand, those detached housing markets with mass transit access that are situated closest to the CBD clearly display a significant premium in capitalization. Equally, there is not a significant preference displayed for suburbs without mass transit access (only 2 out of the 10 subsets fall into this “unusual” category). This analysis is borne out in Tables 3a & 3b below, with the inner-city zone A or X indicating the strongest mass transit premium.

In summary, many of the samples in the detached housing category simply do not indicate a significant preference either way. On balance, there appears to be a preference for mass transit access in the inner suburban detached housing markets, but currently no clear preference either way in middle and outer suburbs. This analysis perhaps confirms the widespread belief that traditional detached housing consumers lead a more automobile-oriented lifestyle.

This research project was of a static nature and it may be interesting to note any movement in preferences in the future as variables such as petrol prices change or transit service provision improves.

**Table 3a: Brisbane houses - 3 zone sample summary**

		Unit Median Values by Zone		
		Transit-served	Non-Transit	Premium to rail %
<b>Zone X, 4 - 8km</b>	Indicative:	\$438,750	\$365,000	<b>20.2%</b>
<b>Zone Y, 8 - 10km</b>	Indicative:	\$296,375	\$320,000	<b>-7.4%</b>
<b>Zone Z, 10 - 14km</b>	Indicative:	\$310,000	\$303,143	<b>2.3%</b>

**Table 3b: Brisbane house values - 6 zone sample summary**

		House Median Values by Zone		
		Transit-served	Non-transit	Premium to Transit %
<b>Zone A, 4 - 6km</b>	Indicative:	\$470,000	\$417,500	<b>12.6%</b>
<b>Zone B, 6 - 8km</b>	Indicative:	\$360,000	\$348,250	<b>3.4%</b>
<b>Zone C, 8 - 10km</b>	Indicative:	\$326,500	\$324,000	<b>0.8%</b>
<b>Zone D, 10 - 12km</b>	Indicative:	\$292,750	\$320,000	<b>-8.5%</b>
<b>Zone E, 12 - 14km</b>	Indicative:	\$315,625	\$325,000	<b>-2.9%</b>
<b>Zone F, 14 - 18km</b>	Indicative:	\$290,000	\$294,072	<b>-1.4%</b>

### **Comparable income samples (at median wage)**

When suburbs (“Local Government Areas” or LGAs) are selected from those that represent the median monthly wage bracket in Brisbane, the test results indicate that higher capitalization rates exist where there is mass transit access - among both types of housing. This is born out in Tables 4 and 5, with the set of median income bracket suburbs with mass transit access clearly outperforming those without mass transit access. The magnitude of difference in these subsets is worthy of note; with apartments, units and other attached dwellings in suburbs with train or Busway stations displaying a 28.7% value premium. In the traditional attached housing type, a 27% premium is indicated to those suburbs with stations.

These results imply that among suburbs overwhelmingly containing average wage earning households in the Brisbane metropolitan area, regardless of distance from the CBD, the preference for mass transit service seems to be unambiguously capitalized into sale values. In other words, average suburban Brisbane households seemingly prefer to have a mass transit station at hand, as they are statistically paying extra for this convenience. This research outcome should be broadly noteworthy to government, transport planners, urban economists, valuers, property developers and investors.

**Table 4: Brisbane units - LGA median income sample**

<b>Brisbane LGA Median Weekly Income Band:</b>		<b>\$800 - 999</b>	
<b>Transit-served suburbs</b>	<b>Unit indicative value</b>	<b>Non transit served</b>	<b>Unit indicative value</b>
Alderley	\$240,000	Camp Hill	\$200,500
Ascot	\$254,500	Carina	\$263,000
		Carina	
Clayfield	\$223,750	Heights	\$147,500
Morningside	\$254,750	Mansfield	\$320,000
Newmarket	\$277,250	Tingalpa	\$205,000
		Wavell	
Taringa	\$263,500	Heights	\$158,000
Toowong	\$275,000	Manley West	\$237,000
		Bracken	
Hendra	\$263,750	Ridge	\$120,000
Indooroopilly	\$285,000	Capalaba	\$308,000
		Rochedale	
Wooloowin	\$218,000	South	\$99,000
Gaythorne	\$230,000	Underwood	\$220,500
		Sunnybank	
Michelton	\$325,000	Hills	\$177,000
Carseldine	\$235,000	Algester	\$165,000
Runcorn	\$207,000	Forest Lake	\$200,000
Holland Park West	\$239,500		
Tarragindi	\$83,000		
Eight Mile Plains	\$213,300		
Median:	<b>\$240,000</b>		<b>\$200,250</b>
<b>Transit served median as factor of non rail served median:</b>			<b>1.20</b>
<b>Mean:</b>	<b>\$240,488</b>		<b>\$201,464</b>
<b>Transit served mean as factor of non rail served mean:</b>			<b>1.19</b>

**Table 5: Brisbane houses - LGA median income sample**

<b>Brisbane LGA Median Weekly Income Band:</b>		<b>\$800 - 999</b>	
<b>Transit-served suburbs</b>	<b>House indicative value</b>	<b>Non transit-served</b>	<b>House indicative value</b>
Alderley	\$438,750	Camp Hill	\$417,500
Ascot	\$733,000	Carina	\$338,000
Clayfield	\$605,000	Carina Heights	\$363,500
Morningside	\$385,250	Mansfield	\$331,000
Newmarket	\$405,000	Nathan	\$320,000
Taringa	\$505,000	Stafford Heights	\$328,000
Toowong	\$470,000	Tingalpa	\$305,000
Hendra	\$491,250	Wavell Heights	\$345,500
Indooroopilly	\$467,500	Aspley	\$315,000
Wooloowin	\$475,000	Chermside West	\$320,000
Gaythorne	\$423,750	MacGregor	\$380,000
Michelton	\$326,500	Manley West	\$360,000
Oxley	\$300,000	Jamboree Heights	\$285,000
Carseldine	\$410,000	Bracken Ridge	\$303,143
Boondall	\$310,000	Capalaba	\$303,750
Nudgee	\$321,250	Rochedale South	\$275,000
Bald Hills	\$265,000	Underwood	\$285,000
Runcorn	\$290,000	Sunnybank Hills	\$351,000
Holland Park			
West	\$345,000	Algerster	\$282,750
Tarragindi	\$365,000	Doolandella	\$275,000
Eight Mile Plains	\$415,000	Forest Lake	\$280,250
<b>Median:</b>	<b>\$410,000</b>		<b>\$320,000</b>
<b>Transit served median as factor of non rail served median:</b>			<b>1.28</b>
<b>Mean:</b>	<b>\$423,458</b>		<b>\$322,114</b>
<b>Transit served mean as factor of non rail served mean:</b>			<b>1.31</b>

Source: PRD Research (2005)

### **Limitations of the analysis**

As with all analysis approaches and new directions in research, there are limitations and potential weaknesses that can be identified. Limitations might include: the assumptions and comparables used in the analysis; the reliance to some extent on professional or personal judgment; and perhaps complications involved in averaging across suburbs with different median income levels in order to find an “indicative value” for the zone (this involves the grouping of somewhat dissimilar suburbs). On the other hand, the author contends that the results are useful and valid, and that so too are the methods employed. Positive aspects of the method include the utilization of a mainstream, workable analysis



approach. Valuers and property analysts are certainly more comfortable with a combination of “art” and “science” than the mathematically driven academic researchers who have earlier turned their attention to this topic. The professional judgment of the researcher should be reliable – drawing as it does on first hand knowledge of suburban property in Brisbane. And finally, the results seem to be meaningful and to correspond with observable reality in Brisbane property markets (including growing anecdotal recognition of certain rail-served “hot spots”).

## **IMPLICATIONS FOR PROPERTY MARKETS AND DEVELOPMENT PATTERNS**

The evidence from the test results indicates that, perhaps as expected, attached housing consumers show a stronger preference for transit access than those consumers who choose detached housing. Preference is taken to be demonstrated where a higher indicative capitalization of properties exists.

On further examination, there may be other interesting ways of reading some of the results. In terms of the magnitude of property premiums associated with transit access, it should be noted that especially amongst traditional detached housing in suburbs further out from the city, there is often only a small or negligible difference in property values according to the availability of transit. This might be taken to imply that, all things being equal, those suburbs that have transit access but which are not significantly more expensive than locations without this amenity, provide a genuine value-for-money opportunity to buyers of housing. It might be said that this value opportunity is currently being overlooked in the mainstream market. This observation might be taken one step further. Is it possible that a major segment of the property market in Brisbane, in the form of detached housing, is not functioning predictably or logically with respect of the pricing of transit service as an amenity? If so, what does this “market failure” reflect? An observer of property values and markets might suggest a number of potential factors contributing to this slightly curious result:

- The CBD may not be the primary focus of accessibility in some areas – other centres of employment and activity may be key reference points.
- There may be a lack of general understanding in the market about the benefits of mass transit access for property values over the longer term.
- Some market participants may choose to ignore available evidence that mass transit service provides them with a benefit or amenity. They may simply never utilize or consider utilizing transit.
- Mass transit service, though available, may currently be impractical or unattractive to use for many residents and property purchasers.

It might be possible to speculate that a major shift in the attractiveness of automobile transport in comparison with public transit could engender significant changes in the property market. For example, any change in the economic environment that increased the cost of auto transport at a rate significantly faster than increases in the cost of rail transit could potentially change the property market for detached housing in ways that might lead to a greater level of price premium among suburbs with rail access. This research project was undertaken on a static basis, and any ongoing or dynamic measurement would provide interesting information on changing market preferences, perhaps with relation to the impact of key variables such as; economic conditions, petrol prices, and changing household sizes.

### **Land-use in a changing economic & social environment**

During 2005 and 2006, petrol prices rose well above the \$1 per litre mark, and for the first time, many Brisbane motorists considered the possibility of using public transit (if and where available). Recent statistics have indicated strong growth in absolute levels of public transport usage, with a press release on recent figures (BCC August 2006) trumpeting 24% bus passenger growth over two years (from 48 to 60 million annual riders). The Brisbane City Centre Draft Master Plan (BCC 2006) indicates that car parking in the CBD will face increasing restriction in coming years. Additionally, the South East Queensland Regional Plan (OUM 2006) will restrict development in fringe locations and concentrate development activity in established areas – looking to provide a greater link between land form and public transport infrastructure. Planning and urban design trends as well as lifestyle expectations, in Australia and even in the conventional “model” for Australian development - the United States - are increasingly taking on-board the European higher density approach.

Demographic changes in coming years seem to be in favour of a growing market (currently at around 25% of the total housing market) for attached housing, with low-maintenance aspects and higher density configurations. Smaller households are more likely to contain residents who see quality transit as a positive enhancement. All of these factors combine to suggest the future for urban development in Brisbane is one of more transit-friendly design and planning and increased demand for transit-adjacent apartments and townhouses from housing consumers. These factors can quite conceivably be combined with improved provision of transit if government seeks to shift the balance ever so gradually away from auto-dominance. In the shorter term, this changing dynamic might increasingly play itself out in the preference housing purchasers show toward locations with pre-existing transit access.

Transit Oriented Development or TOD is currently receiving genuine interest at all government levels in Australia, but large-scale test cases are yet to be completed in the Australian context. In brief, TOD refers to urban design and development that places a mixture of medium and high density residential and commercial buildings in proximity to high quality public space - while offering direct access to superior transit service. In

coming years, Australian developers, planners and property professionals will become increasingly familiar with the concept.

## **Accommodating & planning for population growth – the importance of vision**

Increased migration, population growth and economic strength in the new century are providing a wind of change in Brisbane. In addition, it is reasonably foreseeable that rising infrastructure costs for ex-urban and fringe development will mean this market is not as affordable as it once was. In shaping land form, economic growth and urban development in coming years it is extremely important that a viable vision be put forward for quality solutions, smart growth and sustainable improvements in living standards. Brisbane needs to look outward toward the successes in significant cities of a similar scale. Vision needs to be matched by planning process, infrastructure commitments, and an approach to development that encourages and supports smart growth. Higher density zoning around stations should go hand-in-hand with the infrastructure commitments of public transport agencies.

## **Brisbane 2020 – a ride into the future**

The early years of the second decade of the 21<sup>st</sup> century may see transport/land use strategy come into its own - as design and planning for major transit infrastructure, capacity upgrades and system growth is undertaken. It is most likely at this juncture that the property industry and property developers and investors will begin to take the locational aspects of property value very seriously, as well as the development opportunities that land with access to quality transit provides. The remainder of the second decade of the 21<sup>st</sup> century could see the beginnings of a transit-adjacent land and construction boom, guided by station area TOD master planning and urban design efforts.

This model of growth would see greater Brisbane in the period 2020 – 2030 increasingly recognized as a multi-centred sub-tropical transit metropolis of around 3 million residents. Employment centres may exist where non-descript and under-utilised suburban rail stations currently stand. Residents could increasingly be in a position to live a transit-based, low-maintenance lifestyle. Investment in high quality transit, combined with well-planned population growth will reinforce the land value premiums associated with transit access. The auto-dominated late twentieth century version of Brisbane may become an historical curiosity piece, just as we now consider it quaint that Brisbane was ever thought to be no more than a “big country town”.

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