

# SSROC Affordable Housing Submission

## Background Report Part 2: Planning and Economics in Priority Precincts

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This report has been prepared for  
SSROC

by

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# 1 Overview

The *Background Report Part 2* (this report) provides an analysis of an overview of the types of planning and mechanisms and strategies most likely to be effective, feasible and equitable in the context of the housing market and affordable housing need in the Central and South Districts. It draws upon research contained in *Part 1* of the *Background Report*, and additional research in the body of the current report related to the planning context, local housing sub-markets and the economics of redevelopment to understand mechanisms and strategies that are most likely to be effective in the this context.

Whilst the findings are broadly applicable across the two Districts, there is a particular focus in this *Report* on priority urban renewal precincts within these Districts, namely Bays Precinct, Arncliffe-Banksia Urban Renewal Corridor, Parramatta Rd Urban Transformation Area, Central to Eveleigh Urban Transformation Area and the Sydenham-Bankstown Urban Renewal Corridor.

Together with the *Background Report Part 1: Demographic and Housing Market Context*, this *Report* provides the evidence base for the *SSROC Affordable Housing Submission* to the Greater Sydney Commission.

## 2 Potential Mechanisms and Strategies to Deliver Affordable Housing

### 2.1 Overview of Effective Mechanisms & Strategies

There are a wide range of strategies available to State and local governments to promote affordable housing in the Central and South Districts. As shown in Figure 2.1 below, these strategies range from ‘light’ planning intervention in the market (Column 1) to strong intervention (Column 3), or direct provision of affordable housing (Column 4).

As noted in the *Background Report Part 1: Demographic and Housing Market Trends*, it is unlikely that newly constructed strata dwellings or separate houses provided through the market will be affordable to any of the relevant target groups in most LGAs within the Central and South Districts, apart from to *some* moderate income households in a narrow range of areas (mainly Canterbury LGA). As such, **virtually all very low and low income households, and many smaller and family households on moderate incomes, will be excluded from affordable rental in these Districts in the future.**

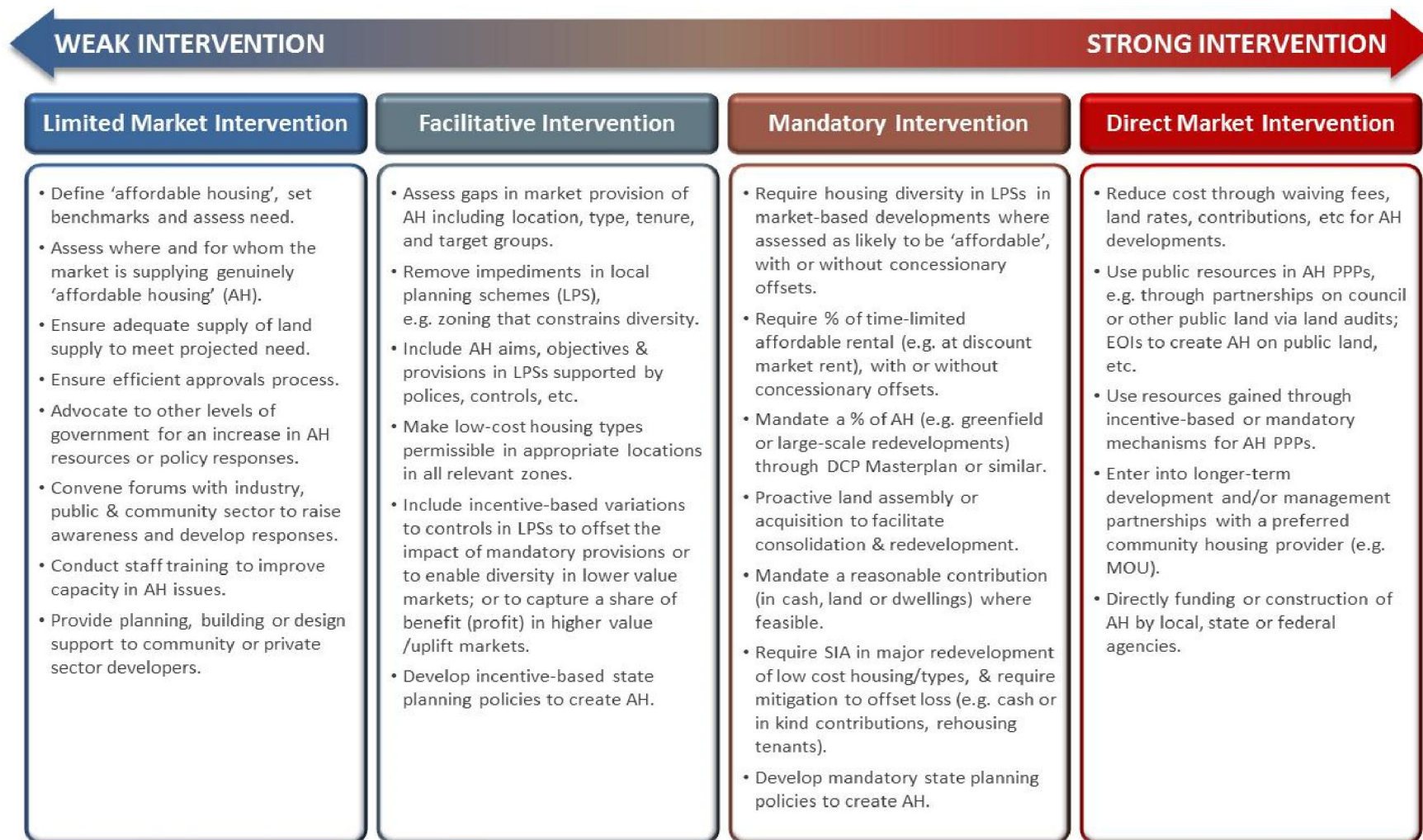
It is important to note that the vast majority of those in housing stress are very low and low income households. The ongoing loss of social housing, its failure to keep pace with growing need, and the non-replacement of lower cost private rental through redevelopment and gentrification, are key issues facing these Districts.

The dramatic increase in the real cost of rents over the past decade, and the likelihood that a growing proportion of very low, low and moderate income households will remain in long-term rental due to the increasing unaffordability of home purchase is also noted. The growing number of asset poor older people also signals the need for well-located affordable housing in accessible, transit oriented developments in inner and middle ring suburbs of Greater Sydney.

As such, the most effective strategies will be those from ‘Columns 3 and 4’ in the table below, that is mandatory mechanisms including inclusionary zoning and mandatory contributions to create affordable housing for all very low and low income households in particular, and for moderate income families; and the direct creation of affordable housing through development and management partnerships on government-owned land.

This is the case for virtually all LGAs within the two Districts, as well as in the priority urban renewal precincts of Bays Precinct, Arncliffe-Banksia Urban Renewal Corridor, Parramatta Rd Urban Transformation Area, Central to Eveleigh Urban Transformation Area and the Sydenham-Bankstown Urban Renewal Corridor, which are a particular focus of this *Report*.

The economic analysis reported later also indicates that these stronger market interventions are also likely to be economically feasible and equitable with regard to the distribution of costs and benefits in most of the areas analysed.



Source: Stubbs (2003); JSA (2011)

Figure 2-1: Mechanisms and Strategies to Create Affordable Housing along a Continuum of Planning Intervention

Source: JSA 2009



## 2.2 The Bays Precinct & the Arncliffe to Banksia Urban Renewal Corridor

### 2.2.1 Overview

This section provides a review of the mechanisms and strategies that are most likely to be effective in creating affordable housing in the Bays Precinct and the Arncliffe to Banksia Urban Renewal Corridor through an analysis of the economics of redevelopment, likely affordability of various housing products, and factors most likely to affect affordability in these geographic sub-markets.

### 2.2.2 Market Delivery of Affordable Housing

#### Overview

The first major strategy relates to facilitating market delivery of affordable housing, including with some minor intervention through the planning system, such as ensuring that there are no impediments to the development of affordable and low cost housing products, or providing incentives to reduce the cost of development such as reduced parking, developing smaller dwellings, etc.

The first step in understanding the effectiveness of such strategies is to understand where and for whom housing is currently affordable in the context of local housing markets, and where relevant products could be made more affordable regarding key determinants of cost and purchase price.

Understanding the extent to which the market *could* deliver affordable housing in the Bays Precinct and the Arncliffe to Banksia Urban Renewal Corridor also assists in the development of more effective strategies for the provision of affordable housing, in particular where greater intervention through the planning system, or the direct creation of affordable housing, would be necessary. (Refer also to Sections 2.3 and 2.4 of the *Background Paper Part 1*).

#### Affordable **Purchase** in Bays Precinct and Banksia-Arncliffe Corridor

##### Overview

An analysis of **all sales in suburbs that form the context to the Bays Precinct and to the Banksia and Arncliffe Urban Renewal Corridor** was undertaken for the year ended March 2016 using EAC Red Square data base. This was to understand what areas and housing products would be affordable to very low, low and moderate income households currently, and key factors that would impact upon affordability, with the latter examined through a linear regression analysis.

A longitudinal analysis was also undertaken using all sales for the year ended March 2011 to understand the extent to which dwellings of different types in the areas surrounding the Priority Precincts have increased in real terms in order to understand likely supply and demand issues.



The context is first set by a comparison of real price increases in suburbs around the two Precincts from 2011 to 2016, again using all sales in the two periods from Red Square database.

### Real Price Increases 2010 to 2015

The following table compares real (CPI adjusted) increases in median prices for separate houses and for strata dwellings in suburbs around the two Precincts between 2011 and 2016.

It indicates that there has been considerable pressure at the lower end of the market for **separate houses**, with houses in Banksia and Arncliffe experiencing real average annual increases that are nearly double the Greater Sydney average. In contrast, separate houses in the Bays Precinct suburbs experienced growth around the Greater Sydney average.

The trend for **strata dwellings** is much more mixed, with low growth in Pymont and well above average growth in Rozelle and Banksia; and other suburbs showing growth closer to the average. The large difference in growth rates between Pymont and Rozelle may reflect changing makeup of strata dwellings, with a likely increase in the number of smaller dwellings in Pymont and an increase in the number of larger, higher amenity dwellings in Rozelle.

Bright orange shading indicates well above average increases in real costs, and lighter orange shading indicates substantially above average real price increases.

Table 2-1: Median price increase 2010-2015 for separate houses and strata properties for selected areas

	Separate House			Strata		
	Median 2011 (inflation adjusted)	Median 2016	Annual increase	Median 2011 (inflation adjusted)	Median 2016	Annual increase
Suburb (Urban Renewal Precinct)						
Pymont (The Bays)	992000	1340000	6.2%	869500	900000	0.7%
Rozelle (The Bays)	1054000	1402500	5.9%	669000	1110000	10.7%
Lilyfield (The Bays)	1117000	1414000	4.8%	640000	805000	4.7%
Annandale (The Bays)	1101000	1420000	5.2%	601000	745000	4.4%
Banksia (Banksia and Arncliffe Urban Renewal Corridor)	748500	1202500	9.9%	363000	548000	8.6%
Arncliffe (Banksia and Arncliffe Urban Renewal Corridor)	693500	1130000	10.3%	578000	700000	3.9%
<b>Greater Sydney</b>	<b>649000</b>	<b>855000</b>	<b>5.7%</b>	<b>520000</b>	<b>671000</b>	<b>5.2%</b>

Source: JSA 2016 using sales data from Red Square for years ended March 2011 and 2016, ABS CPI data.

## Affordability Analysis

### Quartile Analysis

The following table indicates that there were **no housing products** in the first, second or third quartiles that would have been affordable to very low or low income purchasers in suburbs around the Bays Precinct and the Arncliffe to Banksia Urban Renewal Corridor in the year ended March 2016, and only one product in one suburb affordable to moderate income households.

Specifically, no separate houses were affordable to any of the target groups. First quartile strata (likely older and/or lower amenity) dwellings in Banksia were affordable to around 15% of households in the moderate income band. There was very limited supply of such dwellings in Banksia (two dwellings for the period) and the relatively low supply and likely amenity of such dwellings indicates that new build is unlikely to be affordable to any of the target groups.

This is shown in more detail in the following table.

Table 2-2: Sales prices for separate houses and strata by quartile for selected areas

Suburb (Urban Renewal Precinct)	Separate House				Strata			
	n	Q1	Q2	Q3	n	Q1	Q2	Q3
Pyrmont (The Bays)	15	1070000	1340000	1512500	324	655000	900000	1388750
Rozelle (The Bays)	145	1250000	1402500	1675000	114	808750	1110000	1498750
Lilyfield (The Bays)	97	1250000	14140000	1763000	41	640000	805000	981000
Annandale (The Bays)	139	1245000	1420000	1870000	73	600000	745000	945000
Banksia (Banksia and Arncliffe Urban Renewal Corridor)	36	1048750	1202500	1305000	9	515500	548000	555000
Arncliffe (Banksia and Arncliffe Urban Renewal Corridor)	67	980000	1130000	1320000	90	600500	700000	762775

Affordable:	
Very Low Income	
Low Income	
Moderate Income	

Source: JSA 2016 using sales data from Red Square for calendar year 2015.

### Detailed Product Analysis Based on Median Prices

The following table shows similar trends in affordability to the analysis above, but looks at product types in more detail. This indicates that:

- Median priced studio apartments were affordable to all moderate income households and to some low income households, with limited stock of such apartments in the suburbs of Pymont and Annandale.
- One bedroom strata dwellings were affordable to some moderate income households in the suburbs of Banksia and Arncliffe, again with limited stock of this product.
- There were no opportunities for affordable purchase for other strata products, nor of houses in any area.

Table 2-3: Median sales prices for separate houses and strata by dwelling size for selected areas

Suburb (Urban Growth Precinct)	Separate House Median				Strata Median							
	n	2 BR	n	3 BR	n	0 BR	n	1 BR	n	2 BR	n	3+ BR
Pymont (The Bays)	7	1080000	4	1386500	5	335000	59	620000	101	977000	33	2460000
Rozelle (The Bays)	47	1226700	82	1560750	0		19	680000	19	1015000	18	1850000
Lilyfield (The Bays)	22	1250000	63	1490000	0		7	580000	11	835000	6	1430000
Annandale (The Bays)	47	1240000	79	1800000	4	337500	19	592500	31	826500	5	1150000
Banksia (Banksia and Arncliffe Urban Renewal Corridor)	3	940000	27	1195000	0		1	540000	7	550000	0	
Arncliffe (Banksia and Arncliffe Urban Renewal Corridor)	10	1042500	43	1215000	0		4	517500	33	700000	10	818000

Affordable:	
Very Low Income	
Low Income	
Moderate Income	

## Factors Affecting Affordability

It is important to understand what factors affect the affordability of different housing products in different areas so that planning and design may take these into account when seeking to have an impact upon the market.

A linear regression analysis (LRA) was undertaken on the Red Square dataset for factors that were able to be isolated and controlled for in the statistical analysis, and where there was sufficient data to draw meaningful conclusions. These were time, number of bedrooms, number of bathrooms, parking and lot size (in the case of separate dwellings). This is reported in the following tables for separate houses and for strata dwellings.

Key findings include the following:

- Strata area is the best predictor of price for strata dwellings in The Bays Precinct, with strata area predicting 93% of the variation in sales price, so that anything increasing strata area, such as parking, will reduce affordability.
- Similarly for Banksia/Arncliffe, prices for strata dwellings increased with number of bedrooms, bathrooms and parking spaces.
- The current market for strata dwellings in The Bays Precinct appears to be increasing by around 11% over the last year.
- Strata prices in the Arncliffe to Banksia Urban Renewal Corridor were flat with no statistically significant increase in prices identified over the time period when adjusted for dwelling size.
- There was little real change in the price of separate houses over the most recent 12 month period; with the exception of Rozelle where prices have increased by around 12%. The average price for separate houses for Rozelle was \$1.4 million for the period, compared to \$1.5 million in Lilyfield and \$1.6 million in Annandale; so the increase is likely to reflect the Rozelle market catching up to surrounding areas.

It should be noted that where a variable is shown as not statistically significant, this can be because it does not affect price, because it is strongly related to another variable (for example bedrooms and bathrooms could increase together) or there is insufficient variation in the data (for example all houses may have one bathroom).



Table 2-4: Linear regression analysis results for separate houses and selected precincts

Suburb (Urban Growth Precinct)	R <sup>2</sup>	Days	Bed	Bath	Park	Area (m <sup>2</sup> )	Constant
Pyrmont (The Bays) (insufficient data to analyse)							
Rozelle (The Bays)	0.54	\$458.81	\$141,195	\$131,290	\$54,224	\$1,364.80	\$715,340
Lilyfield (The Bays)	0.50	ns	\$158,700	\$173,110	ns	\$1,290.50	\$443,150
Annandale (The Bays)	0.74	ns	\$97,998	\$256,100	\$97,874	\$2,449.70	\$350,810
Banksia (Banksia and Arncliffe Urban Renewal Corridor)	0.01	ns	\$493,870	ns	ns	ns	ns
Arncliffe (Banksia and Arncliffe Urban Renewal Corridor)	0.78	ns	\$136,300	\$155,980	-\$131,820	\$1,604.60	ns

Source: JSA 2016 using sales data from RedSquare for year ended March 2016.

Notes: ns= not statistically significant

Table 2-5: Linear regression analysis results for strata properties and selected precincts

Suburb (Urban Growth Precinct)	R <sup>2</sup>	Days	Bed	Bath	Park	Constant
Pymont (The Bays)	0.60	\$822	\$410,890	\$194,070	\$194,070	ns
Rozelle (The Bays)	0.72	ns	\$409,840	ns	\$318,690	ns
Lilyfield (The Bays)	0.81	ns	\$341,490	ns	\$204,400	ns
Annandale (The Bays)	0.53	ns	\$284,550	ns	ns	\$306,240
Banksia/Arncliffe (Banksia and Arncliffe Urban Renewal Corridor)	0.78	ns	\$96,258	\$131,990	\$45,610	\$211,220

Source: JSA 2016 using sales data from RedSquare for year ended March 2016.

Notes: ns= not statistically significant

Table 2-6: Linear regression analysis results for strata properties and selected precincts

Suburb (Urban Growth Precinct)	R <sup>2</sup>	Days	Area (m <sup>2</sup> )	Constant
Pymont/Rozelle/Lilyfield/Annandale (The Bays)	0.93	\$256	\$8,720.30	ns
Banksia/Arncliffe (Banksia and Arncliffe Urban Renewal Corridor)				
Insufficient data to analyse				

Source: JSA 2016 using sales data from RedSquare for year ended March 2016.

Notes: ns= not statistically significant

## Products that *could* be ‘Affordable’

Applying the results of the above analysis, ‘cost’ could be reduced and, in some cases ‘affordability’ increased, under certain conditions for new build products in *some* areas.

The following table shows that a major impost on the **cost of purchase** of strata dwellings across the board would be achieved by reduction in strata area including a reduction in parking requirements and number of bathrooms. **Affordability** could also be increased in *some* areas.

**Affordable purchase** could be increased for **low income households** under the following conditions:

- According to the regression analysis, **studio apartments with no parking** would be expected to be affordable to some low income households in The Bays (upper 40%) and Banksia Arncliffe Urban Renewal Corridor (upper 15%).

**Affordable purchase** could be increased for **moderate income households** under the following conditions:

- According to the regression analysis, **1 bedroom strata dwellings with one bathroom and no parking space** would be expected to be affordable to some moderate income households in The Bays (upper 60%) and Banksia Arncliffe Urban Renewal Corridor (upper 60%).
- **Two bedroom strata dwellings with one bathroom and no parking space** would be expected to be affordable to some moderate income households in Banksia Arncliffe Urban Renewal Corridor (upper 5%).

**Though providing benefit in terms of increased affordability to some moderate income households and to single person and couple low income households, even under optimistic scenarios with reduced amenity described above the benefit is relatively narrow in its impact, and will not make such products affordable to the vast majority of low and very low income households.**

This is shown in summary in the following tables.

Table 2-7: Estimated market prices for selected strata properties by precinct using results of linear regression analysis

Urban Growth Precinct	35 m <sup>2</sup> (Studio, 1 bathroom, no parking)	55 m <sup>2</sup> (Studio, 1 bathroom, 1 parking space)	50 m <sup>2</sup> (1 bedroom, 1 bathroom, no parking space)	70 m <sup>2</sup> (1 bedroom, 1 bathroom, 1 parking space)	70 m <sup>2</sup> (2 bedrooms, 1 bathroom, no parking)	90 m <sup>2</sup> (2 bedrooms, 1 bathroom, 1 parking space)
The Bays	\$305,000	\$480,000	\$436,000	\$610,000	\$610,000	\$785,000

Source: JSA 2016 using sales data from Red Square for calendar year 2015.

Urban Growth Precinct	Studio, 1 bathroom, no parking	Studio, 1 bathroom, 1 parking space	1 bedroom, 1 bathroom, no parking space	1 bedroom, 1 bathroom, 1 parking space	2 bedrooms, 1 bathroom, no parking	2 bedrooms, 1 bathroom, 1 parking space
Banksia and Arncliffe Urban Renewal Corridor	\$343,000 (1)	\$389,000 (1)	\$439,000	\$485,000	\$535,000	\$581,000

Notes:

(1) Estimate unreliable as it extrapolates outside the range of data

Affordable to very low income households

Affordable to low income households

Affordable to moderate income households



## Affordable **Rental** in the Bays Precinct and Banksia-Arncliffe Corridor

A snapshot of all rental properties advertised for rent in relevant suburbs was undertaken during the week commencing 9 August 2016 using realestate.com.

The following table shows median rentals across the precincts for various types of rental accommodation and the groups to whom median rental is likely to be affordable.

There was no accommodation affordable to very low income households.

Low income households can affordably rent a studio apartment in The Bays Precinct. Affordable rental is not available for larger low income households. There was no private rental accommodation affordable to low income households in the Arncliffe-Banksia Corridor.

Moderate income households can affordably rent a bed-sit in The Bays but are excluded from other rental; and can rent a one and two bedroom house and apartment in Arncliffe-Banksia, with a two bedroom apartment just affordable to the top of the income range.

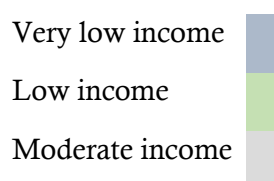
**There is a very limited range of affordable rental choice for very low and low income households within these markets, and none for low and very low income families; and with larger moderate income households excluded from The Bays, and with limited availability in Arncliffe-Banksia.**

Table 2-8: Affordability of rental accommodation for selected Precincts

Precinct	Separate House Median						Strata Median							
	n	1BR	n	2BR	n	3+BR	n	0 BR	n	1 BR	n	2BR	n	3+BR
The Bays	2	590	16	710	25	950	9	295	73	570	58	845	19	1045
Arncliffe Banksia	0	0	4	520	6	635	0	0	4	495	12	550	6	630

Source: Rental snapshot 9 August 2016, realestate.com.au and JSA analysis

Affordability:



The extent to which newly constructed apartments are likely to enter the rental market is also relevant.

The table below shows the proportion of owner occupied and rented apartments in suburbs across relevant suburbs and shows the likely take up of newly constructed apartments by investors. Take up ranges from 37% in Banksia to 72% in Annandale, with an average across all areas of 60%.

Combined with the assessment of cost and affordability above, around 60% of newly constructed studio apartments in The Bays would be expected to provide affordable rental accommodation to low income households and moderate income households; and around 50% of newly constructed one and two bedroom apartments in Arncliffe-Banksia would provide affordable rental accommodation to moderate income households, with two bedroom apartments affordable to households at the top of the band.

Table 2-9: Proportion of rental dwellings by all dwellings for dwelling type and suburb

Suburbs (Precinct)	Owner occupied	Private rental
Pyrmont (The Bays)	41%	59%
Rozelle (The Bays)	41%	59%
Lilyfield (The Bays)	40%	60%
Annandale (The Bays)	28%	72%
Banksia (Banksia and Arncliffe Urban Renewal Corridor)	63%	37%
Arncliffe (Banksia and Arncliffe Urban Renewal Corridor)	46%	54%
All suburbs	40%	60%

Source: ABS Census 2011 (Tablebuilder) and JSA calculation

## Strategic Implications

### Facilitative Mechanisms

There are extremely limited opportunities to provide affordable purchase housing for very low, low or moderate income households under current market arrangements in The Bays precinct and in Arncliffe-Banksia.

There are *some* opportunities to provide lower cost apartments through planning controls that facilitate a proportion of smaller strata dwellings with limited parking and reduced strata area.

As outlined above, there are a range of ways that affordable housing can be actively facilitated in the market context described above.

The first relates to **removing impediments** to the development of lower cost or affordable housing types. A detailed audit of local planning instruments of relevant Councils to ensure that there are no unintended impediments to the development of lower cost apartments in relevant areas is a useful strategy (e.g. increased strata area due to constraints on number of dwellings per hectare or excessive parking requirements, particularly for studio and one-bedroom apartments).

Two main forms of **incentives** are also relevant.

- The first are **market-based incentives**, where an opportunity to vary planning controls is provided to a developer and **tied to a demonstrated affordable housing outcome**. For example, reduced parking requirements may be provided where strata dwellings of a maximum size are provided in specified areas or precincts. These dwellings are provided through the market, but are more likely to remain lower cost or more affordable in the context of the local housing market, especially in lower cost/lower amenity localities.



- The second set of incentives are **non-market based variations to planning controls** that seek to capture a reasonable share of uplift or additional profit created through the planning system, for example, where a developer chooses to take up specified variations to controls provided they agree to make a contribution to affordable housing in perpetuity. This mechanism tends to be most effective and attractive to developers in high value/amenity precincts or gentrifying areas, making it an appropriate mechanism for these two Precincts.

In each case, it is preferred that the mechanism is clearly set out in a **Council Policy** (for example, a Voluntary Planning Agreement Policy) for transparency and consistency, and is thus subject to a formal agreement.

Actively encouraging the use of SEPPARH to create **New Generation Boarding House** accommodation is particularly relevant for very low and low income singles and couples in these areas.

More detailed work would be required to examine detailed mechanisms that would be most effective in the diverse market conditions described above.

## Mandatory Provisions

**Mandating lower cost apartment types** to be provided through the market would also be an effective mechanism for a narrow range of groups in some areas, particularly lower amenity/cost areas where prices increases would be more contained over time. For example, a proportion of smaller dwellings with appropriate standards could be mandated through the LEP or Council Policy, noting that a majority of such dwellings are likely to enter the private rental market, and more likely to remain at the lower cost rental end where they are in cheaper or lower value areas.

The economics of both incentive based and mandatory provisions are discussed further below, while mandatory contributions are also considered.

## 2.2.3 Opportunities for Capturing a Share of Land Value Uplift

### Preliminary Modelling of Expected Profits from Redevelopment

#### Overview

We have carried out preliminary modelling of the expected land value uplift from the redevelopment of existing housing, existing residential flat buildings and industrial and commercial land for three, six, eight and fourteen story development across the various Precincts.

It provides a basis for a preliminary assessment of the likely feasibility of affordable housing levies or mandatory contributions in different Precincts under different development scenarios, discussed below.

We first provide an overview of results of the modelling. This is followed by detailed modelling and calculations from which these results are derived.

## Mandatory Contributions

There appears to be considerable land value uplift associated with variations to planning controls around zoning, height and density, providing an opportunity for **capturing a reasonable share of this uplift in the form of mandatory contributions** for the purpose of affordable housing. This is considered on a precinct by precinct basis below.

For the purposes of assessment, we have assumed that 10% is a normal profit, which would provide sufficient incentive for a developer to proceed with a project, and taking into account all reasonable development costs. Assuming a 50% split of profit over a normal profit, we have estimated this as a proportion of apartments.

It is noted that this is a preliminary assessment based on best available data and would have to be considered on a case by case basis to examine site-based variations (e.g. the need for remediation), with preliminary architectural drawings to fully assess land value uplift and development costs in more detail.

## The Bays

The Bays area is currently covered by SREP 26 – City West. There are eight precincts in The Bays. These are:<sup>1</sup>

- The Waterfront Promenade. A shared path following the harbour edge.
- White Bay Power Station. The area includes the heritage listed White Bay Power Station with the balance of the site open land including extensive paved areas. The uses for the precinct include “providing housing choices” and providing an industrial hub, suggesting a mixed use precinct. This could include housing above commercial applications or separate residential blocks.
- Bays Market District. This area includes the current Sydney Fish Markets area and other retail and commercial uses, including areas of ground level car parking. Uses include “providing compatible housing” with wholesale and retail uses.
- Wentworth Park. This area will consist of public space.
- Rozelle Bay. The area currently contains a number of waterfront uses. This precinct will “integrate living and working...”
- Rozelle Rail Yards. This area currently consists of open space. Uses will include “a mix of different housing choices, including affordable housing”.
- Glebe Island. The area currently contains deep water port facilities. Residential uses do not appear to be envisaged for this site.
- White Bay. The area currently contains deep water port facilities. Residential uses do not appear to be envisaged for this site.

The majority of the land appears to be in public ownership, with the exception of some lots in the Bays Market District currently containing industrial uses.<sup>2</sup>

Three precincts have been identified as providing for development for housing. These are **White Bay Power Station, Bays Market Precinct, Rozelle Bay and Rozelle Rail Yards**. Much of the land consists of either vacant land or waterfront industrial uses.

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<sup>1</sup> <https://thebayssydney.com.au/> under the tab “destinations” accessed 4 August 2016.

<sup>2</sup> Search of maps on EAC Redsquare Data Base.

There has been a recent sale of industrial land in the land being lots 20, 21 and 22 of DP811844. This parcel of land comprising 2,971.4 m<sup>2</sup> was sold on 20 November 2015 for \$20,957,683; or \$7,054/m<sup>2</sup>. This valuation has been used to in modelling for value capture for affordable housing set out below.

Comparative suburbs for the purpose of sales data have been taken to be **Rozelle for White Bay Power Station and Rozelle Bay; Pyrmont for Bays Market Precinct; and Lilyfield for Rozelle Rail Yards.**

As most of the area is undeveloped or vacant land, only Scenario 3 in Table 2.11 below has been considered. The analysis assumes that the landowner (the government) recovers the value of the land under the current usage. No allowance has been made for remediation or engineering works for foundations, and this could be significant, especially as much of the land may have been reclaimed in the past.

The modelling suggests that there will be significant uplift associated with appropriate height and zoning to allow the construction of residential dwellings, with development for three stories economic in two precincts and development for six stories and above economic in all precincts. The greatest uplift is expected to be in the White Bay Power Station and Rozelle Bay precincts, with modelled affordable housing contributions ranging from 10% of GFA for three stories to 28% of GFA for 14 stories.

Modelled contributions for the Bays Market District range from 15% for six stories to 23% for 14 stories. Contributions may be greater in this area and similar to those for Rozelle Bay due to the water front location, as currently there is little or no waterfront residential development in Pyrmont, and Pyrmont prices were used in the modelling.

Modelled contributions for Rozelle Rail Yards range from 11% for six stories to 20% for 14 stories.

Affordable housing levies of the order of 15% would appear to be sustainable across The Bays Precinct.

### **Banksia to Arncliffe Urban Renewal Corridor**

Urban renewal areas have not been identified, apart from the statement:

*Rockdale City Council nominated the Princes Highway Corridor between Arncliffe and Banksia as Priority Precincts<sup>3</sup>*

The corridor is generally zoned B6 (Enterprise Corridor) with some areas zoned B4 (Mixed Use), R4 (High Density Residential) and R2 (Low Density Residential). Residential accommodation is currently prohibited in the B6 zone.

Existing development is separate houses in areas zoned R2, three storey walk up apartments in areas zoned B4 and a mixture of low density commercial uses such as car yards and higher density uses such as two storey office buildings in areas zoned B6.

Heights are generally 14.5 metres with FSR of 1.5 in the B6 zoning and 2.5 in B4 zoning.

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<sup>3</sup> <http://www.planning.nsw.gov.au/Plans-for-Your-Area/Priority-Growth-Areas-and-Precincts/Arncliffe-and-Banksia-Priority-Precincts>

Nine parcels of land zoned B6 have sold since 1 January 2016. Seven of these had an average sales price of \$2,600 per m<sup>2</sup>,<sup>4</sup> and the other two had an average sales price of \$10,800 per m<sup>2</sup>.<sup>5</sup> The difference appears to be in the degree of development of the lots with the lower priced lots having smaller buildings and large open areas and the higher price lots containing two storey buildings effectively covering the site.

Redevelopment of separate housing and lower density commercial sites for three storey apartments and higher (or equivalent in shop top housing) is likely to be feasible in Arncliffe; while six storey development (or equivalent in shop top housing) will be also feasible for separate housing and lower density commercial sites in Banksia.

There is likely to be significant uplift from rezoning of existing B6 zoning along the Princes Highway to B4 zoning and rezoning of existing R2 zoning adjacent to the Princes Highway to R4 zoning. Estimated affordable housing contributions range from 10% for three storey development in Arncliffe to 21% for 14 storey development in Arncliffe. Depending on the details of rezoning proposed regarding height and FSR, a general affordable housing levy of 10-15% of saleable floor area appear to be sustainable across the precinct.

Again, more detailed assessment including drawings and site analysis would be required to confirm these preliminary findings.

## Detailed Modelling (Redevelopment)

### Overview

The modelling assumes the development of a block of land of 1,000 m<sup>2</sup>, assumed to be 25 metres wide by 40 metres deep. Based on the setbacks of 6.0 metres in the apartment design guide, the developable area is 28 metres by 13 metres, or 364 m<sup>2</sup>.

Three scenarios have been considered for the land purchase depending on the area, that is, the value of the land prior to the uplift in land values as a result of changes to planning controls.

In the first, it is assumed that separate housing consisting of a median priced house on a median sized block of land is amalgamated to achieve the developable block, and that a median price is paid, that is existing housing is purchased and demolished to enable high density residential flat development. The purchase price is calculated as:

$$\text{Median house price} \times 1,000 / \text{median lot size}$$

In the second scenario, it is assumed that existing three storey residential flat buildings are demolished to enable high density residential flat development and that the purchase price is the median for two bedroom strata for the area. A footprint of 0.33 of the lot is assumed, giving around 4.5 70 m<sup>2</sup> two bedroom apartments per floor, or 14 apartments in total. The purchase price is calculated as:

$$\text{Median two bedroom strata price} \times 14$$

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<sup>4</sup> Lot B DP 435328, Lot 101 DP 787510, Lot 9 DP 1633, Lot 172 DP 860417, Part Lot 11 DP 10039, Lot 20 DP 1771 and Lot 2 DP 597323.

<sup>5</sup> Lot 6 DP 1081710 and Lot A DP 366988.

In the third scenario, the land cost is taken as an average price for industrial zoned land of 1,000 m<sup>2</sup> using recent sales data as described above.

The cost of construction has been estimated using rates from *Rawlinsons Australian Construction Handbook 2012*, multiplied by 1.5 to allow for GST, professional costs, inflation and financing costs. The estimate assumes five 70m<sup>2</sup> apartments per floor, based on the developable area of 364 m<sup>2</sup>, and 1.2 underground car spaces per unit. The rates used were for underground parking and for lifted multi storey medium standard apartments.

Uplift has been estimated as Sales price less land purchase and construction cost, and has been estimated as a percentage of land purchase and construction cost.

Uplift in excess of a normal profit percentage of 10% has been treated as a windfall profit and hence the likely land value uplift, and an affordable housing contribution has been calculated based on a 50:50 split of the land value uplift between the developer and/or landowner and a contribution for affordable housing. The land value capture contribution has been shown as a proportion of gross floor area and is shown as AH% in the table. This has been shown as a proportion of GFA (or its equivalent in dwellings).

Modelling has been carried out for three stories (FSR 1.1, height 12.0 metres), six stories (FSR 2.2, height 21.0 metres), eight stories (FSR 2.9, height 27.0 metres) and fourteen stories (FSR 5.1, height 45.0 metres).

The results of the modelling are shown in the table below.

Table 2-10: Potential Redevelopment Scenarios for Selected Precincts

**Scenario 1 (\$ ' 000,000)**

Suburb	Land purchase Scenario 1	Construction cost three stories	sale price	Uplift	Uplift %	AH %	Construction cost six stories	sale price	Uplift	Uplift %	AH %
Banksia	\$2.64m	\$5.01m	\$8.22m	\$0.56m	7%	Nil	\$10.02m	\$16.44m	\$3.77m	30%	8%
Arncliffe	\$2.61m	\$5.01m	\$10.50m	\$2.88m	38%	10%	\$10.02m	\$21.00m	\$8.37m	66%	17%

Suburb	Land purchase Scenario 1	Construction cost eight stories	sale price	Uplift	Uplift %	AH %	Construction Cost 14 stories	sale price	Uplift	Uplift %	AH %
Banksia	\$2.64m	\$13.37m	\$21.92m	\$5.91m	37%	10%	\$23.39m	\$38.36m	\$12.33m	47%	13%
Arncliffe	\$2.61m	\$13.37m	\$28.00m	\$12.02m	75%	19%	\$23.39m	\$49.00m	\$23.00m	89%	21%

**Scenario 2 (\$ ' 000,000)**

Suburb	Land purchase Scenario 1	Construction cost three stories	sale price	Uplift	Uplift %	AH %	Construction cost six stories	sale price	Uplift	Uplift %	AH %
Banksia	\$7.67m	\$5.01m	\$8.22m	-\$4.46m	-35%	Nil	\$10.02m	\$16.44m	-\$12.57m	-7%	Nil
Arncliffe	\$9.80m	\$5.01m	\$10.50m	-\$4.31m	-29%	Nil	\$10.02m	\$21.00m	\$1.18m	6%	Nil

Suburb	Land purchase Scenario 1	Construction cost eight stories	sale price	Uplift	Uplift %	AH %	Construction Cost 14 stories	sale price	Uplift	Uplift %	AH %
Banksia	\$7.67m	\$13.37m	\$21.92m	\$0.81m	4%	Nil	\$23.39m	\$38.36m	\$7.30m	24%	5%
Arncliffe	\$9.80m	\$13.37m	\$28.00m	\$4.83m	21%	4%	\$23.39m	\$49.00m	\$15.81m	48%	13%

### Scenario 3 (\$ ' 000,000)

Suburb	Land purchase Scenario 2	Construction cost three stories	sale price	Uplift	Uplift %	AH %	Construction cost six stories	sale price	Uplift	Uplift %	AH %
White Bay Power Station	\$7.05m	\$5.01m	\$16.65m	\$4.58m	38%	10%	\$10.02m	\$33.30m	\$16.22m	95%	22%
Bays Market District	\$7.05m	\$5.01m	\$13.50m	\$14.34m	12%	1%	\$10.02m	\$27.00m	\$9.92m	58%	15%
Rozelle Bay	\$7.05m	\$5.01m	\$16.65m	\$45.84m	38%	10%	\$10.02m	\$33.30m	\$16.22m	95%	22%
Rozelle Rail Yards	\$7.05m	\$5.01m	\$12.08m	\$0.00m	0%	Nil	\$10.02m	\$24.15m	\$7.07m	41%	11%
Banksia High Development	\$10.80m	\$5.01m	\$8.22m	-\$7.59m	-48%	Nil	\$10.02m	\$16.44m	-\$4.38m	-21%	Nil
Banksia Low Development	\$2.6m	\$5.01m	\$8.22m	\$0.61m	8%	Nil	\$10.02m	\$16.44m	\$3.82m	30%	8%
Arncliffe High Development	\$10.80m	\$5.01m	\$10.50m	-\$5.31m	-34%	Nil	\$10.02m	\$21.00m	\$0.18m	1%	Nil
Arncliffe Low Development	\$2.6m	\$5.01m	\$10.50m	\$2.89m	38%	10%	\$10.02m	\$21.00m	\$8.38m	66%	17%

Suburb	Land purchase Scenario 2	Construction cost eight stories	sale price	Uplift	Uplift %	AH %	Construction cost 14 stories	sale price	Uplift	Uplift %	AH %
White Bay Power Station	\$7.05m	\$13.37m	\$44.40m	\$23.98m	117%	25%	\$23.39m	\$77.70m	\$47.25m	155%	28%
Bays Market District	\$7.05m	\$13.37m	\$36.00m	\$15.58m	76%	19%	\$23.39m	\$63.00m	\$32.55m	107%	23%
Rozelle Bay	\$7.05m	\$13.37m	\$44.40m	\$23.98m	117%	25%	\$23.39m	\$77.70m	\$47.25m	155%	28%
Rozelle Rail Yards	\$7.05m	\$13.37m	\$32.20m	\$11.78m	58%	15%	\$23.39m	\$56.35m	\$25.90m	85%	20%
Banksia High Development	\$10.80m	\$13.37m	\$21.92m	-\$2.25m	-9%	Nil	\$23.39m	\$38.36m	\$4.17m	12%	1%
Banksia Low Development	\$2.6m	\$13.37m	\$21.92m	\$5.95m	37%	10%	\$23.39m	\$38.36m	\$12.37m	48%	13%
Arncliffe High Development	\$10.80m	\$13.37m	\$28.00m	\$3.83m	16%	3%	\$23.39m	\$49.00m	\$14.81m	43%	12%
Arncliffe Low Development	\$2.6m	\$13.37m	\$28.00m	\$12.03m	75%	19%	\$23.39m	\$49.00m	\$23.01m	89%	21%



## Limitations of modelling

The modelling is necessarily general in nature using median prices and broad estimates, and outcomes for a particular site will depend on the details of the site and the details of the proposed development. The modelling assumes that the economics of redevelopment of low rise commercial sites will be similar to redevelopment of existing residential flat buildings, as there is little data available for commercial sites and commercial sites vary widely in size.

Assumptions have been made with regard to development controls and dwelling yield, and preliminary architectural design would be required to confirm these assumptions. Similarly, cost estimates on preliminary architectural design would be required to confirm estimates of construction cost.

The economics are likely to be much better for redevelopment of brownfield sites, and likely worse for relatively new two storey commercial premises, although as noted, consideration would need to be given to any remediation required for industrial sites.

Nonetheless, the modelling gives insight into likely sensitivities of development and broad insight into likely profit associated with uplift, and where such strategies are most likely to be effective in the context of housing markets within the proposed redevelopment areas.

## 2.3 Parramatta Rd Urban Transformation Area

### 2.3.1 Market Delivery of Affordable Housing

#### Overview

An analysis of the current and likely future affordability of various housing products provided through the market, factors that affect affordability of the product, etc have again been analysed so as to understand the extent to which strategies in 'Columns 1 and 2' of Figure 2.1 above would be effective in the Parramatta Rd Urban Transformation Area (PRUTA).

Understanding the extent to which the market *could* deliver affordable housing assists in the development of more effective strategies for the provision of affordable housing, in particular where greater intervention through the planning system, or the direct creation of affordable housing, would be necessary.

#### Affordable **Purchase** in PRUTA Precincts

##### Overview

An analysis of **all sales in suburbs that form the context to the eight Urban Renewal Precincts along the Parramatta Road Urban Transformation Area (PRUTA)** was undertaken for the calendar year of 2015 using Red Square data base.<sup>6</sup> This was to understand what areas and housing products would be affordable to very low, low and moderate income households

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currently; and key factors that would impact upon affordability, with the latter examined through a linear regression analysis.

A longitudinal analysis was also undertaken using all sales from 2010 to understand the extent to which dwellings of different types in the areas surrounding the relevant Precincts have increased in real terms in order to understand likely supply and demand issues.

The context is first set by a comparison of real price increases in suburbs around the eight Precincts from 2010 to 2015, again using all sales in the two periods from Red Square.

(See also affordable rental analysis from ABS (2011) Census in **Section 1.2.3** above).

### Real Price Increases 2010 to 2015

The following table compares real (CPI adjusted) increases in median prices for separate houses and for strata dwellings in suburbs around the eight Urban Renewal Precincts between 2010 and 2015.

It indicates that there has been considerable pressure at the lower end of the market for **separate houses**, with houses in Granville and Auburn experiencing real average annual increases that are around double the Greater Sydney average. In contrast, separate houses in the inner ring areas around Annandale/Stammore and Leichhardt/Petersham experienced slightly below average growth. However, price increases were well above average in the more expensive markets around Burwood/Concord and Homebush/Concord West/North Strathfield, indicating highly differentiated demand along the Corridor, as would be expected.

The trend for **strata dwellings** is quite different, with well above average real increases in the price of strata dwellings in the inner suburbs around Annandale/Stammore and Leichhardt/Petersham, and in Lidcombe, Auburn and Burwood/Concord. Again, there is clearly pressure at the lower end of the market, as well as within more premium areas.

Bright red shading indicates well above average increases in real costs, and lighter red shading indicates substantially above average real price increases.

Table 2-11: Median price increase 2010-2015 for separate houses and strata properties for selected areas

	Separate House			Strata		
	median 2010 (inflation adjusted)	median 2015	annual increase	median 2010 (inflation adjusted)	median 2015	annual increase
Suburb (Urban Renewal Precinct)						
Granville (Granville)	490000	820000	10.8%	363500	460000	4.8%
Auburn (Auburn)	542500	887000	10.3%	365000	500000	6.5%
Lidcombe (Auburn)	743000	1080000	7.8%	425000	611000	7.5%
Homebush-Concord West-North Strathfield (Homebush)	1074000	1700000	9.6%	550500	690000	4.6%
Burwood-Concord (Burwood)	1253000	1850000	8.1%	576000	800000	6.8%
Five Dock-Croydon (Kings Bay)	1054500	1501500	7.3%	602000	765000	4.9%
Leichhardt-Petersham (Taverners Hill and Leichhardt)	973500	1258000	5.3%	551000	768500	6.9%
Annandale-Stanmore (Camperdown)	1085000	1411000	5.4%	515000	701000	6.4%
<b>Greater Sydney</b>	<b>649000</b>	<b>855000</b>	<b>5.7%</b>	<b>520000</b>	<b>671000</b>	<b>5.2%</b>

Source: JSA 2016 using sales data from Red Square for calendar years 2010 and 2015, ABS CPI data.

## Affordability Analysis

### Quartile Analysis

The following table indicates that there were **no housing products** in the first, second or third quartiles that would have been affordable to very low or low income purchasers in suburbs along the Parramatta Rd corridor in 2015, and only a limited range of products in a few suburbs that would have been affordable to moderate income purchasers.

Specifically, no separate houses were affordable to any of the target groups. First quartile strata (likely older and/or lower amenity) dwellings in Granville and Auburn were affordable to around two-thirds of households in the moderate income band; whereas a median strata dwelling in Granville was affordable to the top 50% of households in the moderate income band, and the top 25% of moderate income households in Auburn.

Although a first quartile strata dwelling was at the very top of the moderate income threshold in Lidcombe, the relatively low supply and likely amenity of such dwellings indicates that new build is unlikely to be affordable to any of the target groups.

This is shown in more detail in the following table.

Table 2-12: Sales prices for separate houses and strata by quartile for selected areas

Suburb (Urban Renewal Precinct)	Separate House				Strata			
	n	Q1	Q2	Q3	n	Q1	Q2	Q3
Granville (Granville)	93	710000	820000	975000	139	419000	460000	521000
Auburn (Auburn)	178	746250	887000	1090250	299	434000	500000	596500
Lidcombe (Auburn)	125	875000	1080000	1350000	127	537750	611000	696500
Homebush-Concord West-North Strathfield (Homebush)	139	1495000	1700000	1998000	175	610000	690000	800000
Burwood-Concord (Burwood)	193	1465000	1850000	2190000	226	650000	800000	961500
Five Dock-Croydon (Kings Bay)	174	1306250	1501500	1750000	132	687500	765000	873250
Leichhardt-Petersham (Taverners Hill and Leichhardt)	260	1115250	1258000	1500000	138	600000	768500	950000
Annandale-Stanmore (Camperdown)	214	1225625	1411000	1800000	125	570000	701000	900000

Affordable:	
Very Low Income	
Low Income	
Moderate Income	

Source: JSA 2016 using sales data from Red Square for calendar year 2015.

### Detailed Product Analysis Based on Median Prices

The following table shows similar trends in affordability to the analysis above, but looks at product types in more detail.

Median priced studio and 1 bedroom strata dwellings<sup>7</sup> were affordable to all moderate income households in Granville and Auburn, to around 25% and 10% of moderate income households in Homebush/Concord West/North Strathfield and Lidcombe respectively. Such dwellings were affordable to only the very top of moderate income households in Leichhardt/Petersham, and it is likely that new build would be generally inaccessible to such households.

Median priced 2 bedroom strata dwellings were affordable to the top 50% of households in the moderate income band in Granville and Auburn only.

Again, there were no opportunities for affordable purchase for any housing products in the remainder of suburbs, nor of houses in any area.

This is shown in the following table.

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<sup>7</sup> It was not possible to reliably analysed these dwellings types separately due to number of dwellings sold in the 12 month period.

Table 2-13: Median sales prices for separate houses and strata by dwelling size for selected areas

Suburb (Urban Growth Precinct)	Separate House Median				Strata Median					
	n	2 BR	n	3 BR	n	0-1 BR	n	2 BR	n	3+ BR
Granville (Granville)	14	733000	44	860000	7	365000	88	440000	16	650000
Auburn (Auburn)	20	738000	69	850000	18	357500	123	450000	79	595000
Lidcombe (Auburn)	12	925000	47	931000	6	514280	65	570000	30	726125
Homebush-Concord West-North Strathfield (Homebush)	18	1698340	54	1623500	9	480000	74	635000	31	840000
Burwood-Concord (Burwood)	18	1390000	61	1655000	24	549000	80	777500	42	1005000
Five Dock-Croydon (Kings Bay)	33	1305000	88	1500000	9	555000	70	758000	22	900000
Leichhardt-Petersham (Taverners Hill and Leichhardt)	81	1101000	115	1300000	29	530010	68	827500	14	1154000
Annandale-Stanmore (Camperdown)	58	1220000	88	1482500	41	560000	46	747500	8	1127500

Affordable:	
Very Low Income	
Low Income	
Moderate Income	



## Factors Affecting Affordability

It is important to understand what factors affect affordability of different housing products in different areas so that planning and design may take these into account when seeking to have an impact upon the market.

A linear regression analysis (LRA) was undertaken on the Red Square dataset for factors that were able to be isolated and controlled for in the statistical analysis, and where there was sufficient data to draw meaningful conclusions. These were time, number of bedrooms, number of bathrooms, parking and lot size (in the case of separate dwellings). This is reported in the following tables for separate houses and for strata dwellings.

Key findings include the following:

- Parking makes a considerable difference to the price of strata dwellings in particular from Homebush to suburbs in the east of the Corridor, adding around \$85,000 to the price of a median priced strata dwelling in Homebush, Leichhardt and Annandale and surrounding suburbs.
- There was little real change in the median price of separate houses in suburbs in the western end of the Corridor over the most recent 12 month period; however, there was a real increase in the price of strata dwellings in these suburbs over the 12 month period. This again appears to indicate increasing consumer pressure at the lower end of the purchase market (that is, for strata dwellings in cheaper areas) (see 5 year trend reported above).
- Additional bathrooms also add a significant impost to the cost of dwellings for separate houses in some areas; and for strata dwellings in all areas where sufficient data was available to undertake the analysis (from around \$53,000 in Granville to more than \$110,000 in Annandale-Stanmore), noting that as well as the cost impost of the bathroom per se, this is also likely an indicator of a larger, higher amenity apartment.<sup>8</sup>

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<sup>8</sup> There was insufficient data to analyse prices by strata area, however in other studies where such data exists we have found strong correlations with strata area and price, with area predicting 85% of price. It is likely that number of bathrooms is acting as a proxy for both increased amenity and for increased strata area.

Table 2-14: Linear regression analysis results for separate houses and selected precincts

Suburb (Urban Growth Precinct)	R <sup>2</sup>	Days	Bed	Bath	Park	Area (m <sup>2</sup> )	Constant
Granville (Granville)	0.45	ns	ns	ns	ns	\$857.73	\$455,310
Auburn (Auburn)	0.44	ns	\$80,976	ns	\$53,990	\$669.29	\$241,050
Lidcombe (Auburn)	0.20	ns	\$121,920	ns	Ns	\$525.51	\$480,920
Homebush-Concord West- North Strathfield (Homebush)	0.22	ns	ns	\$108,050	Ns	\$1,080.50	\$961,140
Burwood-Concord (Burwood)	0.41	\$980.16	\$174,830	ns	Ns	\$1,522.60	\$721,390
Five Dock-Croydon (Kings Bay)	0.56	ns	\$57,847	ns	Ns	\$1,858.80	\$569,200
Leichhardt-Petersham (Taverners Hill and Leichhardt)	0.62	\$327.86	\$122,400	\$95,226	\$28,234	\$1,421.40	\$565,160
Annandale-Stanmore (Camperdown)	0.60	\$641.86	\$64,660	\$147,500	\$52,573	\$2,009.60	\$781,210

Source: JSA 2016 using sales data from RedSquare for calendar year 2015.

Notes: ns= not statistically significant

Table 2-15: Linear regression analysis results for strata properties and selected precincts

Suburb (Urban Growth Precinct)	R <sup>2</sup>	Days	Bed	Bath	Park	Constant
Granville (Granville)	0.65	\$96.22	\$84,950	\$53,146	\$27,477	\$218,800
Auburn (Auburn)	0.60	\$178.36	\$91,567	\$58,593	ns	\$242,890
Lidcombe (Auburn)	0.58	\$196.07	\$97,969	\$61,316	ns	\$347,380
Homebush-Concord West-North Strathfield (Homebush)	0.56	ns	\$159,530	ns	\$85,679	\$248,230
Burwood-Concord (Burwood)	0.64	\$489.56	\$138,150	\$107,750	\$87,550	\$340,880
Five Dock-Croydon (Kings Bay)	0.59	\$338.64	\$119,480	\$65,500	\$78,085	\$413,260
Leichhardt-Petersham (Taverners Hill and Leichhardt)	0.64	\$322.26	\$226,950	\$86,891	\$80,719	\$232,090
Annandale-Stanmore (Camperdown)	0.57	\$488.63	\$210,180	\$111,070	\$83,118	\$256,030

Source: JSA 2016 using sales data from RedSquare for calendar year 2015.

Notes: ns= not statistically significant

## Products that *could* be ‘Affordable’

Applying the results of the above analysis, ‘cost’ could be reduced and, in some cases ‘affordability’ increased, under certain conditions for new build products in *some* areas.

The following table shows that a major impost on the **cost of purchase** of strata dwellings across the board would be achieved by reduction in parking requirements, as well as limiting dwellings to one bathroom, with this probably a proxy for strata area. **Affordability** could also be increased in *some* areas.

**Affordable purchase** could be increased for **moderate income households** under the following conditions:

- According to the regression analysis, **new 1 bedroom strata dwellings with one bathroom and no parking space** would be expected to be affordable to moderate income households in Granville (100% of target group), Auburn (top 75%), Lidcombe (top 25%) and Homebush/Concord West/North Strathfield (top 75%). However, only in Homebush/Concord West/North Strathfield is reduced parking likely to affect the *purchase price* in a major way (although it is likely to affect the *development cost*). In areas like Auburn and Lidcombe, the LRG indicates that the *purchase price* is unlikely to be sensitive to parking reduction, so that the development saving may not be passed on the consumer.

In contrast, suburbs to the east of Homebush are likely to experience a significant reduction in *purchase price* with a reduction in parking; however, this would not be sufficient to make such dwellings *affordable* even to moderate income households in these high value markets.

- **New 2 bedroom strata dwellings with one bathroom and no parking space** would be expected to be affordable to some moderate income households in Granville (top 50%) and Auburn (top 25%) only, with some impact on *purchase price* likely in Granville only.

Again, the *purchase price* is likely to be favourably impacted in most areas to the east of Homebush along the Corridor by a reduction in parking requirements from the LRA analysis. Although *affordability* would not be achieved for any of the target groups, a reduction in price would nonetheless be beneficial in reducing the *amount* of housing stress such groups are currently under.

**Though providing benefit in terms of increased affordability to some moderate income households in a few areas, even under optimistic scenarios with reduced amenity described above the benefit is relatively narrow in its impact, and will not make such products affordable to the vast majority of low and very low income households.**

This is shown in summary in the following table.

Table 2-16: Estimated market prices for selected strata properties by precinct using results of linear regression analysis

Suburb (Urban Growth Precinct)	1 bedroom, 1 bathroom, no parking	1 bedroom, 1 bathroom, 1 parking space	2 bedrooms, 1 bathroom, no parking	2 bedrooms, 1 bathroom, 1 parking space
Granville (Granville)	\$357,000	\$384,000	\$442,000	\$469,000
Auburn (Auburn)	\$393,000	\$393,000	\$485,000	\$485,000
Lidcombe (Auburn)	\$507,000	\$507,000	\$605,000	\$605,000
Homebush-Concord	\$408,000	\$493,000	\$567,000	\$653,000
West-North Strathfield (Homebush)				
Burwood-Concord (Burwood)	\$587,000	\$674,000	\$725,000	\$812,000
Five Dock-Croydon (Kings Bay)	\$598,000	\$676,000	\$718,000	\$796,000
Leichhardt-Petersham (Taverners Hill and Leichhardt)	\$546,000	\$627,000	\$773,000	\$854,000
Annandale-Stanmore (Camperdown)	\$577,000	\$660,000	\$787,000	\$871,000

Source: JSA 2016 using sales data from Red Square for calendar year 2015.

Notes:

Affordable to very low income households

Affordable to low income households

Affordable to moderate income households



## Affordable **Rental** in PRUTA Precincts

A snapshot of all rental properties advertised for rent in relevant suburbs was undertaken during the week commencing 15 February 2016 using realestate.com.

The following table shows median rentals across relevant suburbs for various types of rental accommodation and the groups to whom median rental is likely to be affordable.

**Boarding house accommodation provides the only opportunity for affordable rental to very low income households, with a limited supply of such stock.**

Low income households can affordably rent a one bedroom apartment or bed-sit in Granville, Auburn, Lidcombe and Annandale-Stanmore as well as a boarding house room where available. Affordable rental is not available for larger low income households.

Moderate income households have greater choice, being able to affordably rent a one bedroom apartment or bed-sit in all areas; a two bedroom apartment or house in all areas except Leichhardt-Petersham and Annandale-Stanmore; and a three bedroom apartment or house in Granville, Auburn and Lidcombe.

**Again, a very narrow range of affordable rental choice is available for very low and low income households within these markets, and virtually none for low and very low income families; and rental is also constrained for moderate income families in most areas.**

Table 2-17: Affordability of rental accommodation for selected suburbs

Precinct	Separate House Median						Strata Median						Boarding House Room	
	n	1BR	n	2BR	n	3+BR	n	0-1BR	n	2BR	n	3+BR	n	Rent
Granville	1	320	9	415	12	500	0	0	23	410	13	520	0	0
Auburn	0	0	3	480	21	545	11	270	40	417.5	12	550	2	162.5
Lidcombe	0	0	1	800	10	550	2	335	9	495	3	620	5	200
Homebush-Concord West-North Strathfield	0	0	1	500	11	700	11	460	26	550	9	600	0	0
Burwood-Concord	0	0	1	595	13	740	13	400	41	540	9	700	0	0
Five Dock-Croydon	0	0	4	440	8	765	4	395	19	550	7	680	1	200
Leichhardt- Petersham	3	550	12	675	16	972.5	22	390	24	577.5	3	925	0	0
Annandale- Stanmore	1	620	8	702.5	9	880	17	365	10	580	0	0	1	260

Source: Rental snapshot 16-17 February 2016, realestate.com.au and JSA analysis

Affordability:

Very low income

Low income

Moderate income

The extent to which newly constructed apartments are likely to enter the rental market is also relevant.

The table below shows the proportion of owner occupied and rented apartments in suburbs across suburbs relevant to the PRUTA Precincts and shows the likely take up of newly constructed apartments by investors. Take up ranges from 49% in Five Dock-Croydon to 70% in Leichhardt-Petersham, with an average across all areas of 62%.

Combined with the assessment of cost and affordability above, around 63% of newly constructed one bedroom apartments in the suburbs of Granville, Auburn, Lidcombe and Annandale-Stanmore would be expected to provide affordable rental accommodation to low income households at the top end of the income band and to moderate income households in all suburbs; and around 59% of newly constructed two bedroom apartments in the suburbs of Granville, Auburn, Lidcombe, Homebush-Concord West-North Strathfield, Burwood-Concord, and Five Dock-Croydon would provide affordable rental accommodation to moderate income households at the top of the band.

Table 2-18: Proportion of rental dwellings by all dwellings for dwelling type and suburb

Suburbs (Precinct)	Owner occupied	Private rental
Granville (Granville)	36%	64%
Auburn (Auburn)	36%	64%
Lidcombe (Auburn)	44%	56%
Homebush-Concord West-North Strathfield (Homebush)	41%	59%
Burwood-Concord (Burwood)	38%	62%
Five Dock-Croydon (Kings Bay)	51%	49%
Leichhardt-Petersham (Taverners Hill and Leichhardt)	30%	70%
Annandale-Stanmore (Camperdown)	32%	68%
All suburbs	38%	62%

Source: ABS Census 2011 (Tablebuilder) and JSA calculation



## Strategic Implications

### Facilitation

There are extremely limited opportunities to provide affordable purchase housing for any very low or low incomes households under current market arrangements in PRUTA Precincts.

There are *some* opportunities to provide lower cost apartments in a relatively narrow range of areas through planning controls that facilitate a proportion of smaller strata dwellings with one bathroom, limited parking and reduced strata area.

As outlined above, there are a range of ways that affordable housing can be actively facilitated in the market context described above.

The first relates to **removing impediments** to the development of lower cost or affordable housing types. A detailed audit of local planning instruments of Councils along the PRUTA to ensure that there are no unintended impediment to the development of lower cost apartments in relevant areas is a key strategy (e.g. increased strata area due to constraints on number of dwellings per hectare or excessive parking requirements).

Two main forms of incentives are also relevant.

- The first is **market-based incentives**, where an opportunity to vary planning controls is provided to a developer and **tied to a demonstrated affordable housing outcome**. For example, reduced parking requirements may be provided where strata dwellings of a maximum size are provided in specified areas or precincts. These dwellings are provided through the market, but are more likely to remain lower cost or more affordable in the context of the local housing market, especially in lower cost localities identified above.
- The second set of incentives are **non-market based variations to planning controls** that seek to capture a reasonable share of uplift or additional profit created through the planning system, for example, where a developer chooses to take up specified variations to controls provided they agree to make a contribution to affordable housing in perpetuity. This mechanism tends to be most effective and attractive to developers in high value/amenity precincts or gentrifying areas, making it an appropriate mechanism for PRUTA.

In each case, it is preferred that the mechanisms is clearly set out in a **Council Policy** (for example, a Voluntary Planning Agreement Policy) for transparency and consistency, and is thus subject to a formal agreement.

Actively encouraging the use of SEPPARH to create **New Generation Boarding House** accommodation is particularly relevant for very low and low income singles and couples in these areas.

More detailed work would be required to examine detailed mechanisms that would be most effective in the diverse market conditions described above.

## Mandatory Provisions

**Mandating lower cost apartment types** through the market would also be an effective mechanism in PRUTA areas, particularly in areas where this is most likely to be effective identified above. For example, a proportion of smaller dwellings with appropriate standards could be mandated through a DCP Masterplan or similar, noting that a majority of such dwellings are likely to enter the private rental market, and more likely to remain at the lower cost rental end where they are in cheaper or lower value areas.

The economics of both incentive based and mandatory provisions are discussed further below; while mandatory contributions are also considered.

### 2.3.2 Opportunities for Capturing Land Value Uplift

#### Preliminary Modelling of Expected Land Value Uplift from Redevelopment

##### Overview

We have carried out preliminary modelling of the expected land value uplift from the redevelopment of existing housing and existing residential flat buildings for three, six, eight, fourteen and twenty story development across the various Precincts within the Parramatta Rd Urban Transformation Area.

We have also considered the likely difference in profitability from the development of smaller dwellings and larger dwellings in the different precincts. This also provides a check on the economic feasibility of mandatory provisions outlined above.

It also provides a basis for a preliminary assessment of the likely feasibility of affordable housing levies or mandatory contributions in different Precincts under different development scenarios, discussed below.

We first provide an overview of results of the modelling. This is followed by the detailed modelling and calculations from which these results are derived.

##### Mandating Smaller Dwellings

Within the limits of accuracy of the calculation, and assuming that construction costs are the same per square metre for smaller housing as for larger housing, one bedroom apartments will maximise profit in five precincts and three bedroom apartments will maximise profit in the remaining three precincts. These results also suggest that there is unlikely to be a cost to developers if proportions of smaller sized apartments are specified within planning instruments as a mechanism for delivering lower cost housing, and so incentives would not be required to provide offsets for mandating smaller dwellings, for example. Preliminary architectural design and costing would be required to confirm this conclusion, as these are beyond the current scope.

However it *does* suggest that, in some precincts, the market may not deliver smaller dwellings unless a desired proportion of these were mandated, due to lower profit margins. As noted, the preliminary results below indicate that this would not be an undue impost upon development.

## Mandatory Contributions

There appears to be considerable land value uplift associated with variations to planning controls around zoning, height and density, providing an opportunity for the **capture of a reasonable share of land value uplift in the form of mandatory contributions** for the purpose of affordable housing. This is considered on a precinct by precinct basis below.

For the purposes of assessment, we have assumed that 10% is a normal profit, which would provide sufficient incentive for a developer to proceed with a project. Assuming a 50% split of residual value after a normal profit and all development expenses, etc, we have estimated this as a proportion of apartments.

It is again noted that this is a preliminary assessment based on available data, and would have to be considered on a case by case basis to examine site-based variations (e.g. the need for remediation), with preliminary architectural drawing to fully assess value uplift, etc.

### Granville precinct

The Granville Precinct allows for 3 storey, 6 storey, 8 storey and 14 storey development.<sup>9</sup> Based on a preliminary inspection using google maps and a site inspection, much of the proposed development area consists of older single storey separate housing and light industrial areas, suggesting that significant development opportunities are available.

Using development Scenario 1 in Table 2.20 below as the basis of assessment of 3, 6 and 8 storey development, affordable housing levies in the form of mandatory contributions do not seem to be sustainable. The modelled level of 0-3% equates to between no dwellings and one dwelling in 30, and so could only be applied to quite large developments. Using development Scenario 2 as the basis of assessment of 14 storey development, affordable housing levies of 2% of saleable area (one apartment in 50) and again could only be applied to larger developments.

The assessment is predicated on an uplift in value associated with the introduction of the new development controls. This assumption is valid in the area currently zoned R2 and B6 as residential flat buildings and shop top housing are a prohibited use, and is probably valid in the area currently zoned R3 and proposed as average 3 storeys as the existing FSR of 0.6:1 is insufficient to economically deliver residential flat buildings.<sup>10</sup> The assumption is valid in the balance of the existing R3 zoned area because of the marked increase in height and the expected commensurate increase in FSR to support the height.

The assumption is less certain in the area zoned B4, as residential flat buildings are an innominate use and existing height (52 metres) and FSR (6.0:1) would allow construction of residential flat buildings in accordance with the proposed built form. Against this, the market does not appear to have factored in uplift in this area (probably reflecting low levels of profit as modelled) with two recent sales<sup>11</sup> giving pro rata prices for a 1,000 m<sup>2</sup> lot of \$3.92 million and \$3.75 million; equivalent to the modelling assumption of \$3.96 million for land purchase in the absence of uplift.

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<sup>9</sup> Review of proposed planning changes.

<sup>10</sup> See modelling results in table 2.10

<sup>11</sup> 1/DP744571, \$1.815 million, 27/8/15, 463 m<sup>2</sup>; 1/DP743436, \$1.54 million, 12/3/15, 411 m<sup>2</sup>.

Based on the current market, an affordable housing levy (mandatory contribution) does not appear sustainable in this precinct, and, based on our modelling, the economics of redevelopment are likely to be adverse with the exception of six and eight storey development in existing areas of separate housing. It should also be noted that this is one of two precincts where the market is expected to deliver affordable housing to moderate income households.

### Auburn precinct

The Auburn precinct allows for 3 storey development with one opportunity for 6 storey development.<sup>12</sup> Based on a preliminary inspection using google maps and a site inspection, the proposed development area is around one third light industrial and commercial, one third residential flat buildings and one third separate housing.

Based on our preliminary analysis, property values at the Lidcombe end of the precinct are expected to be higher than those at the Auburn end and so development may be more favoured in this area. Redevelopment of light industrial, commercial and residential flat buildings and existing housing at the proposed heights is unlikely to be supported, at least in the short term and so there is expected to be little or no opportunity for affordable housing contributions.

### Homebush precinct

The Homebush precinct allows for 6 storey, 8 storey and 14 storey development.<sup>13</sup> Based on a preliminary inspection using google maps and a site inspection, much of the proposed development area consists of older single storey separate housing, with some light industrial areas and residential flat buildings including some multi storey developments.

Using development Scenario 1 as the basis of assessment of 6 and 8 storey, affordable housing levies of the order of 15% of saleable areas (one apartment in seven) would appear to be sustainable, and using development Scenario 2 as the basis of assessment of 8 and 14 storey development, affordable housing levies of 9-14% would appear to be sustainable.

There is likely to be considerable uplift in this area. Current R2 zoning prohibits residential flat buildings, as does B3 and B6. In zones where residential flat buildings are innominate or permitted with consent, such as R3, R4 and B4, heights are typically 16 metres, equivalent to 4 storeys, compared to proposed average 8 and 14 storeys. Similarly FSRs are quite low, with a maximum of 1.65:1, roughly equivalent to 5 storeys assuming a 30% building foot print.

A general levy of 10-15% of saleable area (between one apartment in seven to one apartment in ten) appears sustainable in this precinct.

It is noted that these are not recommended as the quantum of levies at this stage, but provide a preliminary assessment of what could be provided for if there were no other site constraints or additional imposts.

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<sup>12</sup> Review of proposed planning changes

<sup>13</sup> Review of proposed planning changes

## Burwood precinct

The Burwood precinct allows for 3 storey, 6 storey, 8 storey and 14 storey development.<sup>14</sup> Based on a preliminary inspection using google maps and a site inspection, the proposed development area consists of around half older single storey separate housing, with the rest commercial and residential flat buildings including some multi storey developments.

Using development Scenario 1 as the basis of assessment of 3 and 6 storey development, affordable housing levies of 10-18% of saleable area would appear to be sustainable, and using development Scenario 2 as the basis of assessment of 8 and 14 storeys, affordable housing levies of 14-19% of saleable area would appear to be sustainable.

There is likely to be significant uplift in this precinct as a result of rezoning. Construction of residential flat buildings is prohibited in areas currently zoned R2 and B6 and this is about one half of the precinct. While residential flat buildings are permitted with consent in R3 zoning, densities are limited by height of 8.5 metres and FSR of 0.5:1 and increased height and FSR will be required to deliver the densities proposed in the Burwood built form. However uplift is likely to be restricted in the area zoned B4, with current FSR of 3:1 (indicative of 10 storeys height assuming a 30% building footprint to meet the setback requirements of the *Apartment Design Guide*) and height of 30 metres.<sup>15</sup> Much of this area is two storey commercial and would be expected to be developable based on economic modelling below. The market appears to have factored in at least some uplift in this area, with two recent sales<sup>16</sup> giving pro rata prices for a 1,000 m<sup>2</sup> lot of \$9.84 million and \$9.83 million; 40% greater than the modelling assumption of \$7.00 million for land purchase in the absence of uplift.

A general levy of 15% (one apartment in seven) appears sustainable in this precinct, although such a levy will discourage three storey development to some extent. Such a levy could also affect developers who have bought a building in the B4 zoned area, although it does not appear as though market prices have responded to the degree that modelling would predict, perhaps because of the impact of particular existing development controls such as setback requirements. Estimated profit based on current market prices and a 15% levy would give a developer a profit of 17%, somewhat less than the expected profit without the levy of 32%, but still high enough for the development to proceed.

Again, more detailed assessment including drawings and site analysis would be required to confirm these preliminary findings.

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<sup>14</sup> Review of proposed planning changes.

<sup>15</sup> JSA calculation.

<sup>16</sup> 4/DP771894, \$4.025 million, 31/7/15, 409 m<sup>2</sup>; 2/DP607913, \$4.00 million, 7/8/15, 407 m<sup>2</sup>.

## Kings Bay precinct

The Kings Bay precinct allows for 3 storey, 6 storey, 8 storey and 14 storey development.<sup>17</sup> Based on a preliminary inspection using google maps and a site inspection, much of the proposed development area consists of low rise commercial development, with the balance separate houses.

Using development Scenario 1 in Table 2.20 below as the basis of assessment of 3 and 6 storey, affordable housing levies of 8-17% would appear to be sustainable, and using development Scenario 2 as the basis of assessment of 6, 8 and 14 storeys, affordable housing levies of 9-19% would appear to be sustainable.

There is likely to be significant uplift with rezoning. Around 80% of the area is zoned IN1 and R2 and residential flat buildings are a prohibited use in these areas. The balance of the area is zoned B6. In the Canada Bay section, residential flat buildings are permitted with consent, in the Burwood section, shop top housing is permitted with consent while in the Ashfield section residential accommodation is prohibited. Heights in B6 vary from three storeys to five storeys, with FSRs typically less than 2.0:1.<sup>18</sup>

There are two recent sales<sup>19</sup> in the B6 area giving pro rata prices for a 1,000 m<sup>2</sup> lot of \$5.1 million and \$2.83 million. This is much less than the land values used in the model, suggesting that Kings Bay is a low value area by comparison with surrounding uses and so modelling is conservative, that potential for residential development has not been factored into market prices or that existing heights and FSRs do not support development for residential flat buildings.

A general levy of 15% (one apartment in seven) appears sustainable in this precinct, although such a levy might discourage three storey development to some degree.

## Taverners Hill precinct

The Taverners Hill precinct allows for 3 storey, 6 storey, and 8 storey development.<sup>20</sup> Based on a preliminary inspection using google maps and a site inspection, much of the proposed development area consists of separate houses, with some areas of light industrial.

Using development Scenario 1 as the basis of assessment of 3, 6 and 8 storey development, affordable housing levies of 1-18% would appear to be sustainable, and using development Scenario 2 as the basis of assessment of 8 storeys, affordable housing levies of 15% would appear to be sustainable.

There is likely to be significant uplift with rezoning. In the Leichhardt area, residential flat buildings are prohibited in IN2 zoning, and, while allowed in R1 zoning, are limited by FSRs of 0.5:1.<sup>21</sup> Uplift is not expected in the area zoned B4, however this site appears to be undergoing

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<sup>17</sup> Review of proposed planning changes.

<sup>18</sup> Review of current planning controls.

<sup>19</sup> 7/DP669245, \$0.935 million, 27/5/15, 183 m<sup>2</sup> (Burwood), 1/DP90833, \$24.5 million, 19/12/14, 8,662 m<sup>2</sup> (Canada Bay).

<sup>20</sup> Review of proposed planning changes.

<sup>21</sup> Review of current planning controls.



redevelopment<sup>22</sup> and so zoning uplift has likely been captured. The area zoned R3 will receive uplift from increase in height from 4 storeys to 8 storeys and commensurate increases in FSR.

In the Marrickville area,<sup>23</sup> residential flat buildings are an innominate use in R2 zoning, but are limited by FSRs of 0.6:1 and height of 9.5 metres. Similarly, residential flat buildings and shop top housing are an innominate use in B6 zoning, but with development limited by FSR of 0.95:1. Similarly, development in the area zoned R4 is limited by FSR of 1.1:1. Our modelling shows that 3 storey development is likely to be marginal in this precinct. A recent sale in this area<sup>24</sup> gave a pro rata prices for a 1,000 m<sup>2</sup> lot of \$4.3 million, less than the \$6.02 million assumed in our modelling. The price is likely to be affected by the proximity of the railway line, however the market does not appear to have factored in uplift associated with rezoning. This may also reflect the fragmentation of land in this area.

A general levy of 15% of saleable area appears sustainable in this precinct. While such a levy might discourage three storey development, such development is marginal in this precinct because of the density of existing housing, and would be expected to proceed only with further increases in height.

Again, more detailed work is required to confirm this preliminary analysis.

### Leichhardt precinct

The Leichhardt precinct allows for 3 storey and 6 storey development.<sup>25</sup> Based on a preliminary inspection using google maps, much of the proposed development area consists of commercial development, with some separate houses on the peripheries.

Using development Scenario 2 as the basis of assessment of 3 storey and 6 storey development, affordable housing levies of 11% of saleable areas are sustainable for 6 storeys, however 3 storey development in this precinct (shown in the area along Parramatta road) is unlikely to occur due to low rates of return.

While residential flat buildings are an innominate use in the B2 zoning, development is likely to be restricted by the existing FSR of 1.0:1. Increase of FSRs to over 2.0:1 will be required to economically deliver the proposed height of 6 storeys, and increase in FSR will provide uplift.

A general levy of 10% of saleable area appears sustainable in this precinct. While such a levy might discourage three storey development, such development is marginal in this precinct because of the density of existing development, and would be expected to proceed only with further increases in height.

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<sup>22</sup> Google maps earthview, accessed 19 February 2016.

<sup>23</sup> Review of current planning controls.

<sup>24</sup> 8/DP8622, \$0.975 million, 28/9/15, 228 m<sup>2</sup>

<sup>25</sup> Review of proposed planning changes.

## Camperdown precinct

The Camperdown precinct allows for 6 storey and 8 storey development.<sup>26</sup> Based on a preliminary inspection using google maps and a site inspection, much of the proposed development area consists of commercial and light industrial development.

Using development Scenario 2 as the basis of assessment, affordable housing levies of 9-13% would appear to be sustainable.

There is likely to be substantial uplift in this precinct. Residential development is prohibited in the current IN2 zoning which comprises the majority of the area. Other areas zoned R4, B2 and R1 have recent high density development and so are unlikely to be redeveloped to take advantage of any uplift.<sup>27</sup>

A general levy of 10% appears to be sustainable in this precinct from our preliminary analysis.

## Modelling (Redevelopment)

### Overview

This section sets out the modelling upon which the above results are based. The modelling assumes the development of a block of land of 1,000 m<sup>2</sup>, assumed to be 25 metres wide by 40 metres deep. Based on the setbacks of 6.0 metres in the apartment design guide, the developable area is 28 metres by 13 metres, or 364 m<sup>2</sup>.

Two scenarios have been considered for the land purchase.

In the first, it is assumed that separate housing consisting of a median priced house on a median sized block of land is amalgamated to achieve the developable block, and that a median price is paid, that is existing housing is purchased and demolished to enable high density residential flat development. The purchase price is calculated as:

$$\text{Median house price} \times 1,000 / \text{median lot size}$$

In the second scenario, it is assumed that existing two storey residential flat buildings are demolished to enable high density residential flat development and that the purchase price is the median for two bedroom strata for the area. A footprint of 0.33 of the lot is assumed, giving around 4.5 70 m<sup>2</sup> two bedroom apartments per floor, or nine apartments in total. The purchase price is calculated as:

$$\text{Median two bedroom strata price} \times 9$$

The cost of construction has been estimated using rates from *Rawlinsons Australian Construction Handbook 2012*, multiplied by 1.5 to allow for GST, professional costs, inflation and financing costs. The estimate assumes five 70m<sup>2</sup> apartments per floor, based on the developable area of 364 m<sup>2</sup>, and 1.2 underground car spaces per unit. The rates used were for underground parking and for lifted multi storey medium standard apartments. The results of the modelling are shown in the table below.

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<sup>26</sup> Review of proposed planning changes.

<sup>27</sup> Inspection of Google Earth view.



Table 2-19: Potential Redevelopment Scenarios for PRUTA Precincts

**Scenario 1 (\$ ' 000,000)**

Suburb	Land purchase Scenario 1	Construction cost three stories	sale price	profit	profit %	AH %	Construction cost six stories	sale price	profit	profit %	AH %
Granville	\$1.73m	\$5.01m	\$6.60m	-\$0.14m	-2%	Nil	\$10.02m	\$13.20m	\$1.45m	12%	1%
Auburn	\$1.81m	\$5.01m	\$6.75m	-\$0.07m	-1%	Nil	\$10.02m	\$13.50m	\$1.67m	14%	2%
Lidcombe	\$2.48m	\$5.01m	\$8.55m	\$1.06m	14%	2%	\$10.02m	\$17.10m	\$4.60m	37%	10%
Homebush/Concord West/ North Strathfield	\$2.87m	\$5.01m	\$9.53m	\$1.64m	21%	4%	\$10.02m	\$19.05m	\$6.15m	48%	13%
Burwood/Concord	\$3.56m	\$5.01m	\$11.66m	\$3.09m	36%	10%	\$10.02m	\$23.33m	\$9.74m	72%	18%
Fivedock/Croydon	\$3.65m	\$5.01m	\$11.37m	\$2.70m	31%	8%	\$10.02m	\$22.74m	\$9.06m	66%	17%
Leichhardt/Petersham	\$6.02m	\$5.01m	\$12.41m	\$1.38m	13%	1%	\$10.02m	\$24.83m	\$8.78m	55%	14%
Annandale/Stammore	\$6.99m	\$5.01m	\$11.21m	-\$0.78m	-7%	Nil	\$10.02m	\$22.43m	\$5.42m	32%	8%

Suburb	Land purchase Scenario 1	Construction cost eight stories	sale price	profit	profit %	AH %	Construction cost 14 stories	sale price	profit	profit %	AH %
Granville	\$1.73m	\$13.37m	\$17.60m	\$2.50m	17%	3%	\$23.39m	\$30.80m	\$5.68m	23%	5%
Auburn	\$1.81m	\$13.37m	\$18.00m	\$2.80m	19%	4%	\$23.39m	\$31.50m	\$6.30m	25%	6%
Lidcombe	\$2.48m	\$13.37m	\$22.80m	\$7.00m	44%	12%	\$23.39m	\$39.90m	\$14.03m	54%	14%
Homebush/Concord West/North Strathfield	\$2.87m	\$13.37m	\$25.40m	\$9.16m	56%	15%	\$23.39m	\$44.45m	\$18.19m	69%	18%
Burwood/Concord	\$3.56m	\$13.37m	\$31.10m	\$14.17m	84%	20%	\$23.39m	\$54.43m	\$27.47m	102%	23%
Fivedock/Croydon	\$3.65m	\$13.37m	\$30.32m	\$13.30m	78%	19%	\$23.39m	\$53.06m	\$26.02m	96%	22%
Leichhardt/Petersham	\$6.02m	\$13.37m	\$33.10m	\$13.71m	71%	18%	\$23.39m	\$57.93m	\$28.51m	97%	22%
Annandale/Stammore	\$6.99m	\$13.37m	\$29.90m	\$9.55m	47%	13%	\$23.39m	\$52.33m	\$21.95m	72%	18%

## Scenario 2 (\$ ' 000,000)

Suburb	Land purchase Scenario 2	Construction cost three stories	sale price	profit	profit %	AH %	Construction cost six stories	sale price	profit	profit %	AH %
Granville	\$3.96m	\$5.01m	\$6.60m	-\$2.37m	-26%	Nil	\$10.02m	\$13.20m	-\$0.78m	-6%	Nil
Auburn	\$4.05m	\$5.01m	\$6.75m	-\$2.31m	-26%	Nil	\$10.02m	\$13.50m	-\$0.58m	-4%	Nil
Lidcome	\$5.13m	\$5.01m	\$8.55m	-\$1.59m	-16%	Nil	\$10.02m	\$17.10m	\$1.95m	13%	1%
Homebush/Concord West/North Strathfield	\$5.72m	\$5.01m	\$9.53m	-\$1.20m	-11%	Nil	\$10.02m	\$19.05m	\$3.31m	21%	5%
Burwood/Concord	\$7.00m	\$5.01m	\$11.66m	-\$0.35m	-3%	Nil	\$10.02m	\$23.33m	\$6.30m	37%	10%
Fivedock/Croydon	\$6.82m	\$5.01m	\$11.37m	-\$0.46m	-4%	Nil	\$10.02m	\$22.74m	\$5.89m	35%	9%
Leichhardt/Petersham	\$7.45m	\$5.01m	\$12.41m	-\$0.05m	0%	Nil	\$10.02m	\$24.83m	\$7.35m	42%	11%
Annandale/Stanmore	\$6.73m	\$5.01m	\$11.21m	-\$0.53m	-5%	Nil	\$10.02m	\$22.43m	\$5.67m	34%	9%

Suburb	Land purchase Scenario 2	Construction cost eight stories	sale price	profit	profit %	AH %	Construction cost 14 stories	sale price	profit	profit %	AH %
Granville	\$3.96m	\$13.37m	\$17.60m	\$0.27m	2%	Nil	\$23.39m	\$30.80m	\$3.45m	13%	1%
Auburn	\$4.05m	\$13.37m	\$18.00m	\$0.58m	3%	Nil	\$23.39m	\$31.50m	\$4.06m	15%	2%
Lidcome	\$5.13m	\$13.37m	\$22.80m	\$4.30m	23%	5%	\$23.39m	\$39.90m	\$11.38m	40%	11%
Homebush/Concord West/North Strathfield	\$5.72m	\$13.37m	\$25.40m	\$6.32m	33%	9%	\$23.39m	\$44.45m	\$15.34m	53%	14%
Burwood/Concord	\$7.00m	\$13.37m	\$31.10m	\$10.74m	53%	14%	\$23.39m	\$54.43m	\$24.04m	79%	19%
Fivedock/Croydon	\$6.82m	\$13.37m	\$30.32m	\$10.13m	50%	13%	\$23.39m	\$53.06m	\$22.85m	76%	19%
Leichhardt/Petersham	\$7.45m	\$13.37m	\$33.10m	\$12.29m	59%	15%	\$23.39m	\$57.93m	\$27.09m	88%	21%
Annandale/Stanmore	\$6.73m	\$13.37m	\$29.90m	\$9.81m	49%	13%	\$23.39m	\$52.33m	\$22.21m	74%	18%

## Modelling (Variation in apartment size)

Table 2-20: Sales price per square metre for one, two and three bedroom dwellings in selected areas

Suburb	Sales price per square metre		
	1 BR (50 m2)	2 BR (70 m2)	3 BR (90 m2)
Granville	7300	6286	7222
Auburn	7150	6429	6611
Lidcome	10286	8143	8068
Homebush/Concord West/North Strathfield	9600	9071	9333
Burwood/Concord	10980	11111	11167
Fivedock/Croydon	11100	10829	10000
Leichhardt/Petersham	10600	11821	12822
Annandale/Stammore	11200	10679	12528

Source: Red Square database and JSA calculation, minimum sizes from *The Apartment Design Guide*

### Limitations of modelling

The modelling is necessarily general in nature using median prices and broad estimates, and outcomes for a particular site will depend on the details of the site and the details of the proposed development. The modelling assumes that the economics of redevelopment of low rise commercial sites will be similar to redevelopment of existing residential flat buildings, as there is little data available for commercial sites and commercial sites vary widely in size.

Assumptions have been made with regard to development controls and dwelling yield, and preliminary architectural design would be required to confirm these assumptions. Similarly, cost estimates on preliminary architectural design would be required to confirm estimates of construction cost.

The economics are likely to be much better for redevelopment of brownfield sites, and likely worse for relatively new two storey commercial premises, although as noted, consideration would need to be given to any remediation required for industrial sites.

Nonetheless, the modelling gives insight into likely sensitivities of development and broad insight into likely profit associated with uplift, and where such strategies are most likely to be effective in the context of housing markets along the PRUTA.

## 2.4 Central to Eveleigh Transformation Corridor

### 2.4.1 Market Delivery of Affordable Housing

#### Overview

Again, the first major approach considered relates to facilitating market delivery of affordable housing, including with some minor intervention through the planning system, such as ensuring that there are no impediments to the development of affordable and low cost housing products, or providing incentives to reduce the cost of development such as reduces parking, developing smaller dwellings, etc. This is to understand the likely effectiveness of these strategies compared with stronger intervention through the planning system.

The eight precincts in the CEUTA have been broadly combined for the purpose of analysis. These are:

- The “Eveleigh Combined Precinct” consisting of North Eveleigh, South Eveleigh and Redfern Station precincts with analysis based on the suburbs of Erskineville, Alexandria, Newtown and Darlington;
- The “Redfern Waterloo Estates Combined Precinct” consisting of Redfern Estate and Waterloo Estate with analysis based on the suburbs of Redfern and Waterloo; and
- The “Central Station Combined Precinct” consisting of Central Station Precinct and Lawson St to Cleveland Precinct with analysis based on the suburbs of Ultimo, Chippendale and Surry Hills.

#### Affordable **Purchase** in Precinct Areas

##### Overview

An analysis of all sales in suburbs that form the context of the Central to Eveleigh Transformation Precinct was undertaken for the calendar year of 2015 using Red Square data base. This was to understand what housing products would be affordable to very low, low and moderate income households currently; and key factors that would impact upon affordability, with the latter examined through a linear regression analysis.

##### Real Price Increases 2010 to 2015

The following table compares real increases in median prices for separate houses and for strata dwellings in suburbs around the Precinct between 2010 and 2015. Price growth for separate houses was above the Greater Sydney average for Central Station Combined Precinct and Redfern/Waterloo Estate Combined Precinct, and similar to the Greater Sydney average for the Eveleigh Combined Precinct. Price growth for strata dwellings was above the Greater Sydney average for Redfern/Waterloo Estate Combined Precinct and less than the Greater Sydney average for the Central Station and Eveleigh Combined Precincts.

Table 2.21: Median price increase 2010-2015 for separate houses and strata properties for selected ('proxy') areas

Suburb	Separate House			Strata		
	median 2010 (inflation adjusted)	median 2015	annual increase	median 2010 (inflation adjusted)	median 2015	annual increase
Erskineville, Alexandria, Newtown, Darlington	951000	1255000	5.7%	550500	695000	4.8%
Redfern, Waterloo	965000	1300000	6.1%	618500	827600	6.0%
Ultimo, Chippendale, Surry Hills	1062500	1447500	6.4%	621000	781000	4.7%
Greater Sydney	649000	855000	5.7%	520000	671000	5.2%

Source: JSA 2016 using sales data from Red Square for calendar years 2010 and 2015, ABS CPI data.

## Affordability Analysis for Purchasers

### Quartile Analysis

Data was analysed for all properties sold in the calendar year of 2015 using EAC Red Square database for suburbs proximate to the urban renewal precincts.

The following table indicates that there were no housing products in the first, second or third quartiles that would have been affordable to very low, low income or moderate income purchasers in 2015.

As such, it is likely that relying upon the market to provide affordable housing without significant planning intervention or direct creation of such housing will not lead to the creation of affordable housing.

This is shown in more detail in the following table.

Table 2.22: Sales prices for separate houses and strata by quartile for selected areas

Suburb	Separate House				Strata			
	n	Q1	Q2	Q3	n	Q1	Q2	Q3
Erskineville, Alexandria, Newtown, Darlington	323	1015500	1255000	1462500	525	580000	695000	822000
Redfern, Waterloo	123	1123000	1300000	1562500	635	685000	827600	976500
Ultimo, Chippendale, Surry Hills	144	1261250	1447500	1800000	787	611500	781000	1037500

Source: JSA 2016 using sales data from RedSquare for calendar year 2015

Affordable:	
Very Low Income	
Low Income	
Moderate Income	

### Detailed Product Analysis Based on Median Prices

The following table shows similar trends in affordability to the analysis above, but looks at product types in more detail.

Again, it is important to note that there were no opportunities for affordable purchase for any housing products in the area.

This is shown in the following table.



Table 2.23: Median sales prices for separate houses and strata by dwelling size for selected areas

Suburb	Separate House Median				Strata Median					
	n	2 BR	n	3 BR	n	0-1 BR	n	2 BR	n	3+ BR
Erskineville, Alexandria, Newtown, Darlington	121	1100000	111	1365000	137	595000	136	780000	27	1110000
Redfern, Waterloo	34	1115000	48	1331250	98	583000	141	810000	42	1050000
Ultimo, Chippendale, Surry Hills	45	1280000	49	1575000	216	589000	147	925000	30	1290000

Source: JSA 2016 using sales data from Red Square for calendar year 2015

Affordable:	
Very Low Income	
Low Income	
Moderate Income	

## Factors Affecting Affordability

It is important to understand what factors affect affordability of different housing products in different areas so that planning and design may take these into account when seeking to have an impact upon the market.

A linear regression analysis (LRA) was undertaken on the Red Square dataset for 2015 calendar year for factors that were able to be isolated, and where there was sufficient data to draw meaningful conclusions. These were time, number of bedrooms, number of bathrooms, parking and lot size (in the case of separate dwellings). This is reported in the following tables for separate houses and for strata dwellings.

There was no statistically significant price rise for separate houses and for strata in suburbs acting as a proxy for the Eveleigh Precinct over the twelve month period, probably because prices have peaked following the recent rapid five year increase in prices noted above. Strata prices have grown in the proxy suburbs for Redfern Waterloo and Central Station Precincts at rates of 10.0% and 13.5%, suggesting ongoing demand for such housing close to the city.

The premium for housing near the city is also evident in the higher land prices for Redfern Waterloo and Central Station Precincts' proxy suburbs, and the high cost of parking in these areas.

Table 2.24: Linear regression analysis results for separate houses and selected precincts (proxy suburbs)

Suburb	R <sup>2</sup>	Days	Bed	Bath	Park	Area (m <sup>2</sup> )	Constant
Erskineville, Alexandria, Newtown, Darlington	0.64	ns	\$148,640	\$138,780	\$95,282	\$1,408.10	\$469,400
Redfern, Waterloo	0.72	ns	\$65,199	\$145,340	ns	\$6,256.30	\$202,920
Ultimo, Chippendale, Surry Hills	0.67	ns	ns	\$45,988	\$161,160	\$9,821.50	\$339,610

Source: JSA 2016 using sales data from RedSquare for calendar year 2015.

Notes: ns= not statistically significant

Table 2.25: Linear regression analysis results for strata properties and selected precincts

Suburb	R <sup>2</sup>	Days	Bed	Bath	Park	Constant
Erskineville, Alexandria, Newtown, Darlington	0.58	ns	\$218,960	\$92,417	ns	\$249,590
Redfern, Waterloo	0.65	\$219.52	\$151,130	\$103,010	\$77,066	\$333,630
Ultimo, Chippendale, Surry Hills	0.67	\$281.82	\$180,750	\$228,150	\$209,480	\$111,150

Source: JSA 2016 using sales data from RedSquare for calendar year 2015.

Notes: ns= not statistically significant

## Products that *could* be 'Affordable'

It is also important to understand whether affordability *could* be increased under certain conditions for new build products delivered through the market in the future, and thus the type of planning intervention that would be useful.

Applying the results of the above analysis, 'cost' and in some cases 'affordability' would be increased under certain conditions for new build products.

The following table shows that a major impost on the **cost of purchase** of strata dwellings across the board would be achieved by reduction in parking requirements, as well as limiting dwellings to one bathroom or otherwise restricting the strata area.

**Affordable purchase** could be increased significantly for **moderate income households only** under the following conditions:

- **New studio apartments with one bathroom and no parking space** would be expected to be affordable to moderate income households in Eveleigh and Central Station Precincts (100% of target group) and in Redfern Waterloo Precinct (upper 40% of the moderate income target group) based on proxy suburbs.

All other dwellings would not be affordable to moderate income households, and no dwellings (including studio apartments) would be affordable to very low or low income households.

This is shown in the following table.

Table 2.26: Estimated market prices for selected strata properties by precinct using results of linear regression analysis

Suburb	Bedsit, no parking	1 bedroom, 1 bathroom, no parking	1 bedroom, 1 bathroom, 1 parking space	2 bedrooms, 1 bathroom, no parking	2 bedrooms, 1 bathroom, 1 parking space
Erskineville, Alexandria, Newtown, Darlington	\$342,000	\$561,000	\$561,000	\$780,000	\$780,000
Redfern, Waterloo	\$436,000	\$587,000	\$664,000	\$738,000	\$815,000
Ultimo, Chippendale, Surry Hills	\$339,000	\$520,000	\$729,000	\$701,000	\$910,000

Source: JSA 2016 using sales data from Red Square for calendar year 2015.

Notes:

Affordable to very low income households	
Affordable to low income households	
Affordable to moderate income households	

## Affordable **Rental** in Precinct Areas

A snapshot of all rental properties advertised for rent in relevant suburbs was undertaken in the week commencing 30 March 2016 using realestate.com.

The following table shows median rentals across suburbs for varying types of rental accommodation, and the groups to whom median rental is likely to be affordable.

Very low income households are excluded from the affordable private rental market across all product types.

Boarding house accommodation provides the only opportunity for affordable rental to low income households, with a limited supply of such stock.

Moderate income households can affordably rent a one bedroom apartment or studio in all areas; but no other product is affordable, and the bottom half of the moderate income range is excluded from affordable housing entirely.

Table 2.27: Affordability of rental accommodation for selected suburbs

Suburbs	Separate House Median				Strata Median						Boarding House Room	
	n	2BR	n	3+BR	n	0-1BR	n	2BR	n	3+BR	n	Median rent
Erskineville, Alexandria, Newtown, Darlington	20	750	17	1200	53	495	32	722.5	6	935	1	244
Redfern, Waterloo	7	690	6	922.5	37	550	54	690	2	955	1	305
Ultimo, Chippendale, Surry Hills	10	777.5	12	1525	82	555.5	39	750	4	1230	2	280

Source: Rental snapshot 30 March 2016, realestate.com.au and JSA analysis

Affordability:

Very low income	
Low income	
Moderate income	

The table below shows the proportion of owner occupied and renter occupied apartments in suburbs across the precincts and showing the likely take up of newly constructed apartments by investors. Take up ranges from 60% in proxy suburbs for Redfern Waterloo to 66% for those around Central Station, with an average across all areas of 62%.

Combined with the assessment of affordability, around one in three newly constructed studio apartments in the various precincts would be expected to provide affordable rental accommodation to moderate income households in all suburbs, noting that this accommodation is only suitable for single person and perhaps couple households, with family households excluded.

Table 2.28: Proportion of rental dwellings by all dwellings for dwelling type and suburb

Suburbs (Precinct)	Owner occupied	Private rental
Erskineville, Alexandria, Newtown, Darlington	37%	63%
Redfern, Waterloo	40%	60%
Ultimo, Chippendale, Surry Hills	34%	66%
All suburbs	37%	63%

Source: ABS Census 2011 (Tablebuilder) and JSA calculation

## Strategic Implications

Opportunities for market delivered affordable housing across the precincts are limited to studios both for rental and purchase and to moderate income households (in some areas only the upper 40% of such households). If parking was required, the dwelling would not be affordable.

Supply of such housing is unlikely to put a cost impost on developers and there is opportunity for uplift, and so mandating a proportion of smaller apartments is likely to be sustainable.

Boarding house accommodation is the only product available to low income renting households in areas that are used as a proxy for precincts. Such households are excluded from any other form of affordable rental across the Study Area.

Very low income are likewise entirely excluded from affordable purchase and rental.

The creation of specific, subsidised products (social housing, discount market rental, and shared equity products) is required to provide any form of affordable housing across the Central to Eveleigh Transformation Area.



## 2.4.2 Opportunities for Capturing a Share of Land Value Uplift

### Results of Preliminary Modelling for Redevelopment

#### Overview

We have carried out preliminary modelling of the expected land value uplift from the redevelopment of existing housing and existing residential flat buildings for six, eight, fourteen and twenty story development across the various precincts, again using data related to proxy suburbs, and of an equitable share of this uplift for affordable housing.

We have also considered the likely difference in profitability from development of smaller dwellings and larger dwellings in the different precincts.

We first provide an overview of results of the modelling. This is followed in Section 4.6.2 by the detailed modelling and calculations from which these results are derived.

#### Mandating Smaller Apartments

Within the limits of accuracy of the calculation, and assuming that construction costs are the same per square metre for smaller housing as for larger housing, three bedroom apartments will maximise profit in three precincts. These results suggest that there is likely to be some cost to developers if proportions of **smaller sized apartments are specified or mandated within planning instruments** as a mechanism for delivering lower cost (if not ‘affordable’) housing, however the differences are small and within the accuracy of the calculation. Preliminary architectural design and costing would be required to confirm this conclusion.

#### Incentive-Based Provisions to Capture Benefit

There appears to be considerable profit associated with **variations to planning controls** around zoning, height and density, providing an **opportunity for benefit capture** for the purpose of affordable housing. This is considered on a broad precinct basis with broad precincts defined above.

For the purposes of assessment, we have assumed that 10% is a normal development profit, which would provide sufficient incentive for a developer to proceed with a project. Assuming a 50% split of profit over a normal profit for **additional saleable area** created through variations to controls, we have estimated this as a proportion of affordable housing (apartments) that could be created through this mechanism.

The contribution to affordable housing should a developer choose to take up a relevant incentive could be captured through a voluntary planning agreement under s93F of the Act.

The analysis demonstrates that there is significant opportunity for additional profit with increased height of buildings and commensurate FSR to allow development. Consequently, and depending on the planning controls in place, incentives around height and FSR could be offered to developers in return for a contribution to affordable housing. This is reflected in the preliminary calculations related to mandatory levies below.

## Mandatory Affordable Housing Levies

### Summary

Another form of benefit capture related to increased land values from rezoning and more liberal controls is mandatory affordable housing levies.

Depending on the allowable height, contribution rates have been calculated based on a 50:50 sharing between affordable housing and the developer of profit above a normal profit of 10%. For Eveleigh Combined Precinct, a brownfields site (specifically within the North Eveleigh Precinct), contribution rates of 29-35% of saleable area appear to be sustainable, with sustainable contribution rates in residential areas within the Eveleigh Combined Precinct ranging from 8% for eight stories to 29% for 20 stories. For the Central Station Combined Precinct, sustainable contributions could range from 2% of saleable area for eight storey development to 29% of saleable area for twenty storey development. For the Redfern Waterloo Combined Precinct, sustainable contributions could range from 16% of saleable area for six storey development to 33% of saleable area for twenty storey development.

By comparison, under the Redfern-Waterloo Affordable Housing Contribution Plan 2006, affordable housing levies are 1.25% of gross floor area.<sup>28</sup>

This is set out in more detail in the text and the tables below.

### Eveleigh Combined Precinct

The Eveleigh Combined Precinct, a brownfields site (specifically within the North Eveleigh Precinct), concept allows for 4 storey, 14 storey and 20 storey development. Based on a preliminary inspection using google maps, much of the proposed development area consists of disused industrial areas, suggesting that significant development opportunities are available.

We have also considered redevelopment in residential areas within the Eveleigh Precinct. This area largely consists of one and two storey attached housing, typically zoned R1, with 9 metres height and FSR of 1.25:1. There are likely to be significant redevelopment opportunities available with the liberalisation of planning controls subject, however, to lot amalgamation.

There is likely to be considerable uplift with development in brownfields areas, such as the North Eveleigh Precinct and affordable housing levies of 29-35% of saleable area appear to be sustainable.

The viability of an affordable housing levy in existing residential areas has been assessed using development scenario 1. The sustainability of an affordable housing levy is dependent on height, ranging from 8% of saleable area for eight storey development to 25% of saleable area for twenty storey development.

### Central Station Combined Precinct

This precinct consists of the airspace above existing rail lines. The cost of the land will be the cost of providing appropriate foundations to construct a platform over the top of the rail lines.

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<sup>28</sup> Sydney Metropolitan Development Authority *Redfern Waterloo Draft Affordable Rental Housing Strategy 2011-2030*.

Detailed engineering investigation will be required to understand the viability and likely cost of such a development. Scenario 1 is equivalent to a foundation cost of \$14,000 per square metre.

Using this scenario, the viability of an affordable housing levy increases rapidly with additional height, ranging from 2% for eight storey development to 29% for twenty storey development.

#### Redfern Waterloo Combined Precinct

This precinct consists of existing housing estates. These are of varying densities and heights, with development opportunities available on large blocks of land with scattered low rise flats. The assessment assumes that these buildings have not reached the end of their economic life.

Using development Scenario 2 as the basis of assessment, affordable housing levies from 16% for six storey development to 33% for twenty storey development are sustainable. This is based on the owner receiving market value for the land. However, if the State Government was to take the purchase cost in the form of dwellings, the yield of affordable housing would increase.

## Detailed Modelling

### Overview

This section sets out the modelling upon which the above results are based.

The modelling assumes the development of a block of land of 1,000 m<sup>2</sup>, assumed to be 25 metres wide by 40 metres deep. Based on the setbacks of 6.0 metres in the apartment design guide, the developable area is 28 metres by 13 metres, or 364 m<sup>2</sup>.

Three scenarios have been considered for the land purchase.

In the first, it is assumed that separate housing consisting of a median priced house on a median sized block of land is amalgamated to achieve the developable block, and that a median price is paid, that is existing housing is purchased and demolished to enable high density residential flat development. The purchase price is calculated as:

$$\text{Median house price} \times 1,000 / \text{median lot size}$$

In the second scenario, it is assumed that existing two storey residential flat buildings are demolished to enable high density residential flat development and that the purchase price is the median for two bedroom strata for the area. A footprint of 0.33 of the lot is assumed, giving around 4.5 70 m<sup>2</sup> two bedroom apartments per floor, or nine apartments in total. The purchase price is calculated as:

$$\text{Median two bedroom strata price} \times 9$$

The cost of construction has been estimated using rates from *Rawlinsons Australian Construction Handbook 2012*, multiplied by 1.5 to allow for GST, professional costs, inflation and financing costs. The estimate assumes five 70m<sup>2</sup> apartments per floor, based on the developable area of 364 m<sup>2</sup>, and 1.2 underground car spaces per unit. The rates used were for underground parking and for lifted multi storey medium standard apartments.

In the third, for the Eveleigh Precinct Brownfields area, the land price has been estimated from the linear regression analysis of separate house prices, using the coefficient for land area and the constant.

The affordable housing contribution has been calculated as half the additional profit over a “normal” profit level of 10%, that is the additional “windfall” profit from rezoning and uplift is split 50:50 between affordable housing and the developer.

There is little difference between scenarios 1 and 2, probably because of the high density of separate housing within the area.

The results of the modelling are shown in the table below.

### Limitations of modelling

The modelling is necessarily general and very preliminary in nature using median prices and broad estimates, and outcomes for a particular site will depend on the details of the site and the details of the proposed development. The modelling assumes that the economics of redevelopment of low rise commercial sites will be similar to redevelopment of existing residential flat buildings, as there is little data available for commercial sites and commercial sites vary widely in size.

Assumptions have been made with regard to development controls and dwelling yield, and preliminary architectural design would be required to confirm these assumptions. Similarly, cost estimates on preliminary architectural design would be required to confirm estimates of construction cost.

The economics are likely to be much better for redevelopment of brown field sites, and likely worse for relatively new two storey commercial premises.

Nonetheless, the modelling gives insight into likely sensitivities of development and broad insight into likely profit associated with uplift.

Table 2-29: Potential Redevelopment Scenarios for Combined Precincts

**Scenario 1 (\$ ' 000,000)**

Precinct	Land purchase Scenario 1	Construction cost six stories	sale price	profit	profit %	AH %	Construction cost eight stories	sale price	profit	profit %	AH %
Eveleigh (Brownfields)	\$1.88m	\$10.02m	\$20.85m	\$8.95m	75%	29%	\$13.37m	\$27.80m	\$12.56m	82%	31%
Eveleigh	\$9.47m	\$10.02m	\$20.85m	\$1.35m	7%	Nil	\$13.37m	\$27.80m	\$4.96m	22%	8%
Central Station	\$14.23m	\$10.02m	\$23.43m	-\$0.83m	-3%	Nil	\$13.37m	\$31.24m	\$3.64m	13%	2%
Redfern Waterloo	\$10.74m	\$10.02m	\$24.84m	\$4.07m	20%	6%	\$13.37m	\$33.12m	\$9.01m	37%	14%

Suburb	Land purchase Scenario 1	Construction cost 14 stories	sale price	profit	profit %	AH %	Construction cost 20 stories	sale price	profit	profit %	AH %
Eveleigh (Brownfields)	\$1.88m	\$23.39m	\$48.65m	\$23.38m	93%	34%	\$33.42m	\$69.50m	\$34.21m	97%	35%
Eveleigh	\$9.47m	\$23.39m	\$48.65m	\$15.79m	48%	20%	\$33.42m	\$69.50m	\$26.61m	62%	25%
Central Station	\$14.23m	\$23.39m	\$54.67m	\$17.05m	45%	21%	\$33.42m	\$78.10m	\$30.45m	64%	29%
Redfern Waterloo	\$10.74m	\$23.39m	\$57.96m	\$23.82m	70%	26%	\$33.42m	\$82.80m	\$38.64m	88%	30%

## Scenario 2 (\$ ' 000,000)

Suburb	Land purchase Scenario 2	Construction cost six stories	sale price	profit	profit %	AH %	Construction cost eight stories	sale price	profit	profit %	AH %
Eveleigh	\$6.26m	\$10.02m	\$20.85m	\$4.57m	28%	11%	\$13.37m	\$27.80m	\$8.18m	42%	18%
Central Station	\$7.03m	\$10.02m	\$23.43m	\$6.38m	37%	17%	\$13.37m	\$31.24m	\$10.84m	53%	24%
Redfern Waterloo	\$7.45m	\$10.02m	\$24.84m	\$7.36m	42%	16%	\$13.37m	\$33.12m	\$12.30m	59%	22%

Suburb	Land purchase Scenario 2	Construction cost 14 stories	sale price	profit	profit %	AH %	Construction cost 20 stories	sale price	profit	profit %	AH %
Eveleigh	\$3.96m	\$23.39m	\$48.65m	\$19.00m	64%	26%	\$33.42m	\$69.50m	\$29.83m	75%	29%
Central Station	\$4.05m	\$23.39m	\$54.67m	\$24.25m	80%	34%	\$33.42m	\$78.10m	\$37.66m	93%	37%
Redfern Waterloo	\$5.13m	\$23.39m	\$57.96m	\$27.12m	88%	30%	\$33.42m	\$82.80m	\$41.93m	103%	33%

## Modelling (Variation in apartment size)

Table 2-30: Sales price per sq m for one, two and three bedroom dwellings in selected areas

Precinct	Sales price per square metre		
	1 BR (50 m2)	2 BR (70 m2)	3 BR (90 m2)
Eveleigh	11900	11143	12333
Central Station	11780	13214	14333
Redfern Waterloo	11660	11571	11667

Source: Red Square database and JSA calculation, minimum sizes from *The Apartment Design Guide*

## 2.5 Sydenham to Bankstown Urban Renewal Area (areas within the Former Marrickville LGA)

### 2.5.1 Overview

This section provides a brief overview of key findings regarding the most effective, efficient and equitable mechanisms and strategies to create affordable housing in parts of the Sydenham to Bankstown Urban Renewal Corridor.

The work reported there is reproduced (with the clients' permission) from a study currently being undertaken by JSA for the Inner West Council. It is noted that the work has focused principally on areas of the Sydenham to Bankstown Urban Renewal Corridor that are within the former Marrickville LGA, with this work being updated to include other parts of the Corridor at the time of writing.

### 2.5.2 Housing Affordability through the Market

#### What is 'affordable' in the Inner West Council Area?

The market is not providing affordable housing for the vast majority of very low, low and moderate income households who need it in the three former LGAs that make up the newly created Inner West Council (Marrickville, Leichhardt and Ashfield), and is not replacing existing stock of housing that is affordable to these groups as it lost through gentrification and redevelopment.

Virtually no strata products (the lowest cost form of accommodation) are affordable for **purchase** through the market for very low, low and moderate income households. At best, some small strata products in cheaper areas *may* be affordable to the very top of the moderate income band. No houses or two or three bedroom strata dwellings are affordable to any very low, low or moderate income households, so that families with children are entirely excluded from affordable purchase in the Inner West LGA.

The vast majority of households needing **affordable rental housing** in the Inner West LGA are also excluded from affordable rental through the market. The only affordable option for very low income households are lower amenity boarding house rooms in a few suburbs; while low income renters can only affordably rent a studio or one bedroom apartment in a few suburbs. Moderate income renters can affordably rent a two bedroom apartment in *some* suburbs, and so are somewhat better catered for, but again family households with children are excluded from larger housing options.

Given that the cost of new build products are likely to reflect the third quartile of existing products, and that there have been significant increases in housing cost in real terms in recent years, it is likely that housing will become even more unaffordable in the Inner West LGA in the future.

The evidence indicates that the vast majority of those needing affordable purchase and rental housing in the LGA are unlikely to have their needs met through the market without strong planning intervention to create affordable housing.

### What could make a difference to affordability through the market?

Even under more optimistic scenarios (in particular, reduced strata area, parking and one bathroom), modelling indicates that, even with planning intervention to encourage or mandate such dwellings, all **very low income and low income households are likely to be excluded from affordable purchase in the Inner West LGA in the future.**

**Moderate income households** would have somewhat more choice in relation to the affordability of studio and smaller one bedroom apartments, and boarding house accommodation, but again **most of this income group including moderate income families would be excluded from affordable purchase in the future.**

There are similar findings for affordable rental in the future.

Strong intervention through the planning system in the form of mechanisms to capture an equitable share of land value uplift, as well as the direct creation of affordable housing on public land through development partnerships, is likely to be required to achieve affordability for the vast majority of relevant target groups, in particular all very low and low income households, and moderate income family households.

## 2.5.3 Assessment of Value Uplift and Land Value Capture

### Overview

This section is reproduced from the Affordable Housing Background Report (JSA 2016), and applies JSA's preferred methodology to the calculation of land value uplift and potential land value capture to selected areas within (the former) Marrickville LGA. The work is reproduced with the permission of the client.

### Key Findings in Relation to Capture of Uplift

Much of the land in Marrickville LGA is zoned R2, IN1 and IN2. Residential land in the LGA typically has FSR 0.60 and height of 9.5 metres with some areas of greater height in and around



town centres. Industrial land typically has FSR 0.95 with no height restriction. Most of this industrial land is in Marrickville and St Peters.<sup>29</sup>

Preliminary modelling has been carried out to understand the economics of redevelopment in Marrickville LGA using current sales data and construction cost data, so as to understand the likely land value uplift associated with changes to planning controls and to assess a reasonable land value capture for council to use for a public purpose. Land value uplift has been calculated as the value of developed land less the cost of existing land, construction costs and a normal level of profit and we have assumed council would capture 50% of the land value uplift for a public purpose. The land value capture has been calculated as a proportion of gross floor area to facilitate universal application, however should council wish to negotiate to receive some of the land value capture in cash or in kind other than apartments, the proportion can be converted into cash through using the estimated sale price of apartments in the development. It would be a matter for council to decide the proportion of the land value capture to use for affordable housing, compared to other public purposes council may wish to progress.

Detailed results of modelling are shown in Table 2.22 below.

The most favourable economics, and hence opportunities for land value capture, relate to the rezoning of industrial land to allow construction of residential flat buildings. Modelled profitability ranges from 40-50% for three storey redevelopment to 80-90% for 14 storey development, suggesting that there will be a significant uplift in land value as a result of such zoning changes. Many of the lots are quite large and in single ownership, facilitating redevelopment. Estimated land value capture ranges from 10% for three storey redevelopment in Post Code 2204, to 21% for 14 storey redevelopment in Post Code 2044.

Levels of profitability are much lower for redevelopment of existing separate houses for residential flat buildings are not particularly favourable and vary across suburbs. Six storey construction is likely to be profitable and with opportunities for value capture in Post Codes 2044 (St Peters/Sydenham/Tempe), 2049 (Lewisham/Petersham), 2203 (Dulwich Hill) and 2204 Marrickville. Eight storey construction is likely to be profitable and with opportunities for value capture in Post Codes 2048 (Stanmore) and 2050 (Camperdown); while Post Code 2042 will require 14 stories to be profitable. Lot sizes are quite small (averaging 250 m<sup>2</sup>) and so redevelopment will require consolidation of land which is likely to reduce opportunities. Estimated land value capture ranges from 1% for six storey redevelopment in Post Code 2050, to 18% for 14 storey redevelopment in Post Codes 2044 and 2049.

The economics of redevelopment of existing three storey residential flat buildings are even less favourable and show little variation with suburb. Modelled profitability ranges from 14-23% for eight storey construction up to 38-50% for 14 storey construction. Existing residential flat buildings are likely to be on larger lots, again facilitating redevelopment however purchase will be required from individual strata owners, making consolidation difficult. Estimated land value capture ranges from 2% for eight storey redevelopment in Post Code 2042, to 13% for 14 storey redevelopment in Post Codes 2044, 2049 and 2050.

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<sup>29</sup> Marrickville Local Environment Plan 2011, inspection of maps.

There are three proposed redevelopment areas under the *Sydenham to Bankstown – draft Urban Renewal Corridor Strategy*. These are discussed below.

Proposed changes in **Sydenham** include shop top housing and medium to high rise housing in areas currently zoned B5, B7, IN2 and IN1. Existing FSRs and height are 0.95 in the industrial zoning with no height restriction and 1.75 in the business zoning with height of 14.0 metres (four stories). Existing development is 2-3 storey factories and showrooms.<sup>30</sup> The economics of redevelopment appear quite favourable and there is likely to be considerable opportunity for value capture in this precinct, in line with modelling related to the rezoning of industrial land.

Proposed changes in **Marrickville** include medium to high rise housing (including the Carrington Road Precinct) in areas currently zoned R1, R2, IN2 and IN1. Existing FSRs and height are 0.95 in the industrial zoning with no height restriction and 0.60 in the residential zoning with height of 9.5 metres (two stories) with some pockets of greater height and density.

Existing development is 2-3 storey factories in the industrial areas and generally single storey separate housing in the residential areas. Existing residential flat buildings are typically three storey walk-ups.<sup>31</sup> The economics of redevelopment of the industrial land are likely to be quite favourable, with considerable opportunity for value capture. The economics of redevelopment of existing separate housing is less favourable, and is likely to require quite liberal controls allowing six storey construction or higher for redevelopment to occur. Opportunities for value capture range from 7% for six stories to 15% for 14 stories. The economics of redevelopment of existing flat buildings will also require quite liberal controls, with redevelopment likely to require a minimum of eight stories to be viable, and opportunities for value capture ranging from 1% for eight stories to 10% for 14 stories.

Proposed changes in **Dulwich Hill** include medium to high rise housing and shop top housing in areas currently zoned R1, R2, R3, R4, B2 and B4. Existing FSRs and height are 2.2 and 14-17 metres (4-5 stories) in the business zoning and 0.60 in the residential zoning with height of 9.5 metres (two stories) with some pockets of greater height and density.

Existing development is two storey shopfronts in the business zoned areas and generally single storey separate housing in the residential areas with some residential flat buildings. Existing residential flat buildings are typically three storey walk-ups.<sup>32</sup>

There is insufficient data available to assess the redevelopment of existing commercial areas, but values are likely to reflect those for existing separate housing. The economics of redevelopment of existing separate housing is relatively favourable, but is likely to require quite liberal controls allowing six storey construction or higher for redevelopment to occur. Opportunities for value capture range from 10% for six stories to 17% for 14 stories. The economics of redevelopment of existing flat buildings will also require quite liberal controls, with redevelopment likely to require a minimum of eight stories to be viable, and opportunities for value capture ranging from 3% for eight stories to 11% for 14 stories.

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<sup>30</sup> Using Google Street View.

<sup>31</sup> Using Google Street View.

<sup>32</sup> Using Google Street View.

## Modelling (Redevelopment)

### Overview

The modelling assumes the development of a block of land of 1,000 m<sup>2</sup>, assumed to be 25 metres wide by 40 metres deep. Based on the setbacks of 6.0 metres in the apartment design guide, the developable area is 28 metres by 13 metres, or 364 m<sup>2</sup>.

Three scenarios have been considered for the land purchase, that is, the value of the land prior to the uplift in land values as a result of changes to planning controls.

In the first, it is assumed that separate housing consisting of a median priced house on a median sized block of land is amalgamated to achieve the developable block, and that a median price is paid, that is existing housing is purchased and demolished to enable high density residential flat development. The purchase price is calculated as:

$$\text{Median house price} \times 1,000 / \text{median lot size}$$

In the second scenario, it is assumed that existing three storey residential flat buildings are demolished to enable high density residential flat development and that the purchase price is the median for two bedroom strata for the area. A footprint of 0.33 of the lot is assumed, giving around 4.5 70 m<sup>2</sup> two bedroom apartments per floor, or 14 apartments in total. The purchase price is calculated as:

$$\text{Median two bedroom strata price} \times 14$$

In the third scenario, the land cost is taken as an average price for an industrial zoned lot of 1,000 m<sup>2</sup> in Marrickville LGA as estimated using recent sales data.<sup>33</sup>

The cost of construction has been estimated using rates from *Rawlinsons Australian Construction Handbook 2012*, multiplied by 1.5 to allow for GST, professional costs, inflation and financing costs. The estimate assumes five 70m<sup>2</sup> apartments per floor, based on the developable area of 364 m<sup>2</sup>, and 1.2 underground car spaces per unit. The rates used were for underground parking and for lifted multi storey medium standard apartments.

Uplift has been estimated as Sales price less land purchase and construction cost, and has been estimated as a percentage of land purchase and construction cost.

Uplift in excess of a normal profit percentage of 10% has been treated as a windfall profit and hence the likely land value uplift, and a land value capture contribution has been calculated based on a 50:50 split of the land value uplift between the developer and/or landowner and a contribution for a public purpose. The land value capture contribution has been shown as a proportion of gross floor area and is shown as LVC% in the table. While this has been shown as a proportion of GFA (or its equivalent in dwellings), all or some proportion of this could be taken in cash rather than as apartments, if council wished to redirect a proportion of the value capture to another public purpose.

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<sup>33</sup> Linear Regression Analysis for industrial zoned land for Marrickville LGA for the last year,  $R^2 = 0.64$ , Price = \$1,087,800 + \$870 x area (m<sup>2</sup>)

Modelling has been carried out for three stories (FSR 1.1, height 12.0 metres), six stories (FSR 2.2, height 21.0 metres), eight stories (FSR 2.9, height 27.0 metres) and fourteen stories (FSR 5.1, height 45.0 metres).

The results of the modelling are shown in the table below.

Table 2-31: Potential Redevelopment Scenarios for Selected Post Codes

**Scenario 1 (\$ ' 000,000)**

Suburb	Land purchase Scenario 1	Construction cost three stories	sale price	Uplift	Uplift %	LVC %	Construction cost six stories	sale price	Uplift	Uplift %	LVC %
2042 (Enmore/Newtown)	\$8.75m	\$5.01m	\$9.53m	-\$4.23m	-31%	Nil	\$10.02m	\$19.05m	\$0.28m	2%	Nil
2044 (St Peters/ Sydenham/ Tempe)	\$4.55m	\$5.01m	\$10.45m	\$0.88m	9%	Nil	\$10.02m	\$20.90m	\$6.32m	43%	12%
2048 (Stanmore)	\$6.48m	\$5.01m	\$9.44m	-\$2.06m	-18%	Nil	\$10.02m	\$18.87m	\$2.36m	14%	2%
2049 (Lewisham/Petersham)	\$5.73m	\$5.01m	\$10.58m	-\$0.17m	-2%	Nil	\$10.02m	\$21.15m	\$5.39m	34%	9%
2050 (Camperdown)	\$9.22m	\$5.01m	\$10.78m	-\$3.46m	-24%	Nil	\$10.02m	\$21.56m	\$2.31m	12%	1%
2203 (Dulwich Hill)	\$4.23m	\$5.01m	\$9.90m	\$0.66m	7%	Nil	\$10.02m	\$19.80m	\$5.55m	39%	10%
2204 (Marrickville)	\$5.02m	\$5.01m	\$9.60m	-\$0.43m	-4%	Nil	\$10.02m	\$19.20m	\$4.16m	28%	7%

Suburb	Land purchase Scenario 1	Construction cost eight stories	sale price	Uplift	Uplift %	LVC %	Construction cost 14 stories	sale price	Uplift	Uplift %	LVC %
2042 (Enmore/Newtown)	\$8.75m	\$13.37m	\$25.40m	\$3.29m	15%	2%	\$23.39m	\$44.45m	\$12.31m	38%	10%
2044 (St Peters/ Sydenham/ Tempe)	\$4.55m	\$13.37m	\$27.86m	\$9.94m	56%	15%	\$23.39m	\$48.76m	\$20.81m	75%	18%
2048 (Stanmore)	\$6.48m	\$13.37m	\$25.16m	\$5.31m	27%	7%	\$23.39m	\$44.03m	\$14.15m	47%	13%
2049 (Lewisham/Petersham)	\$5.73m	\$13.37m	\$28.20m	\$9.10m	48%	13%	\$23.39m	\$49.35m	\$20.23m	70%	18%
2050 (Camperdown)	\$9.22m	\$13.37m	\$28.74m	\$6.15m	27%	7%	\$23.39m	\$50.30m	\$17.68m	54%	14%
2203 (Dulwich Hill)	\$4.23m	\$13.37m	\$26.40m	\$8.81m	50%	13%	\$23.39m	\$46.20m	\$18.58m	67%	17%
2204 (Marrickville)	\$5.02m	\$13.37m	\$25.60m	\$7.21m	39%	10%	\$23.39m	\$44.80m	\$16.39m	58%	15%

## Scenario 2 (\$ ' 000,000)

Suburb	Land purchase Scenario 2	Construction cost three stories	sale price	Uplift	Uplift %	LVC %	Construction cost six stories	sale price	Uplift	Uplift %	LVC %
2042 (Enmore/Newtown)	\$8.89m	\$5.01m	\$9.53m	-\$4.38m	-32%	Nil	\$10.02m	\$19.05m	\$0.14m	1%	Nil
2044 (St Peters/ Sydenham/ Tempe)	\$9.75m	\$5.01m	\$10.45m	-\$4.32m	-29%	Nil	\$10.02m	\$20.90m	\$1.12m	6%	Nil
2048 (Stanmore)	\$8.81m	\$5.01m	\$9.44m	-\$4.38m	-32%	Nil	\$10.02m	\$18.87m	\$0.04m	0%	Nil
2049 (Lewisham/Petersham)	\$9.87m	\$5.01m	\$10.58m	-\$4.31m	-29%	Nil	\$10.02m	\$21.15m	\$1.26m	6%	Nil
2050 (Camperdown)	\$10.06m	\$5.01m	\$10.78m	-\$4.29m	-29%	Nil	\$10.02m	\$21.56m	\$1.47m	7%	Nil
2203 (Dulwich Hill)	\$9.24m	\$5.01m	\$9.90m	-\$4.35m	-31%	Nil	\$10.02m	\$19.80m	\$0.54m	3%	Nil
2204 (Marrickville)	\$8.96m	\$5.01m	\$9.60m	-\$4.37m	-31%	Nil	\$10.02m	\$19.20m	\$0.22m	1%	Nil

Suburb	Land purchase Scenario 2	Construction cost eight stories	sale price	Uplift	Uplift %	LVC %	Construction cost 14 stories	sale price	Uplift	Uplift %	LVC %
2042 (Enmore/Newtown)	\$8.89m	\$13.37m	\$25.40m	\$3.14m	14%	2%	\$23.39m	\$44.45m	\$12.17m	38%	10%
2044 (St Peters/ Sydenham/ Tempe)	\$9.75m	\$13.37m	\$27.86m	\$4.74m	21%	4%	\$23.39m	\$48.76m	\$15.61m	47%	13%
2048 (Stanmore)	\$8.81m	\$13.37m	\$25.16m	\$2.99m	14%	2%	\$23.39m	\$44.03m	\$11.83m	37%	10%
2049 (Lewisham/Petersham)	\$9.87m	\$13.37m	\$28.20m	\$4.96m	21%	5%	\$23.39m	\$49.35m	\$16.09m	48%	13%
2050 (Camperdown)	\$10.06m	\$13.37m	\$28.74m	\$5.31m	23%	5%	\$23.39m	\$50.30m	\$16.84m	50%	13%
2203 (Dulwich Hill)	\$9.24m	\$13.37m	\$26.40m	\$3.79m	17%	3%	\$23.39m	\$46.20m	\$13.57m	42%	11%
2204 (Marrickville)	\$8.96m	\$13.37m	\$25.60m	\$3.27m	15%	2%	\$23.39m	\$44.80m	\$12.45m	39%	10%

### Scenario 3 (\$ ' 000,000)

Suburb	Land purchase Scenario 2	Construction cost three stories	sale price	Uplift	Uplift %	LVC %	Construction cost six stories	sale price	Uplift	Uplift %	LVC %
2044 (St Peters/ Sydenham/ Tempe)	\$1.96m	\$5.01m	\$10.45m	\$3.48m	50%	13%	\$10.02m	\$20.90m	\$8.91m	74%	18%
2204 (Marrickville)	\$1.96m	\$5.01m	\$9.60m	\$2.63m	38%	10%	\$10.02m	\$19.20m	\$7.22m	60%	16%

Suburb	Land purchase Scenario 2	Construction cost eight stories	sale price	Uplift	Uplift %	LVC %	Construction cost 14 stories	sale price	Uplift	Uplift %	LVC %
2044 (St Peters/ Sydenham/ Tempe)	\$1.96m	\$13.37m	\$27.86m	\$12.54m	82%	20%	\$23.39m	\$48.76m	\$23.41m	92%	21%
2204 (Marrickville)	\$1.96m	\$13.37m	\$25.60m	\$10.28m	67%	17%	\$23.39m	\$44.80m	\$19.45m	77%	19%

## Limitations of modelling

The modelling is necessarily general in nature using median prices and broad estimates, and outcomes for a particular site will depend on the details of the site and the details of the proposed development. The modelling assumes that the economics of redevelopment of low rise commercial sites will be similar to redevelopment of existing residential flat buildings, as there is little data available for commercial sites and commercial sites vary widely in size.

Assumptions have been made with regard to development controls and dwelling yield, and preliminary architectural design would be required to confirm these assumptions. Similarly, cost estimates on preliminary architectural design would be required to confirm estimates of construction cost.

The economics are likely to be much better for redevelopment of brownfield sites, and likely worse for relatively new two storey commercial premises, although as noted, consideration would need to be given to any remediation required for industrial sites.

Nonetheless, the modelling gives insight into likely sensitivities of development and broad insight into likely profit associated with uplift, and where such strategies are most likely to be effective in the context of housing markets within Marrickville LGA.

## Marginal uplift from increased height and/or density

### Overview

In many cases, developers will offer to enter into a voluntary planning agreement that allows for additional saleable Gross Floor Area through SEPP 1 variations related to height or FSR. Where such variations are found to have merit in their own right, and so warrant approval, Council may wish to capture some of the associated value uplift. Assessment may be made on a case by case with value uplift estimated by land valuers and quantity surveyors or can be assessed on a proportional basis using averages. An assessment on a proportional basis using averages is set out below.

The analysis is conducted on a marginal basis, that is only the additional costs and additional value are considered. As such the purchase cost of the land, site costs and the like are ignored.

Where a Voluntary Planning Agreement results in an increase in saleable floor area, land value capture of 21% to 24% of the **additional** saleable floor area obtained as a result of the Voluntary Planning Agreement is warranted.

### Modelling (Additional Saleable Floor Area)

The modelling below assesses the marginal value uplift and hence value capture from additional saleable floor area as a proportion of floor area, represented as apartments where value uplift in excess of a normal profit of 10% is shared 50:50 with the developer and a public purpose. The land value capture is shown as a proportion of saleable floor area to allow for universal application.

The modelling uses assumptions as set out above in section 7.2.2.



Table 2-32: Potential Marginal uplift for Selected Post Codes

**Marginal uplift (\$ ' 000,000)**

<b>Suburb</b>	<b>Construction cost per floor</b>	<b>sale price</b>	<b>Uplift</b>	<b>Uplift %</b>	<b>LVC %</b>
2042 (Enmore/Newtown)	\$1.67m	\$3.18m	\$1.50m	90%	21%
2044 (St Peters/ Sydenham/ Tempe)	\$1.67m	\$3.48m	\$1.81m	108%	24%
2048 (Stanmore)	\$1.67m	\$3.15m	\$1.47m	88%	21%
2049 (Lewisham/Petersham)	\$1.67m	\$3.53m	\$1.85m	111%	24%
2050 (Camperdown)	\$1.67m	\$3.59m	\$1.92m	115%	24%
2203 (Dulwich Hill)	\$1.67m	\$3.30m	\$1.63m	98%	22%
2204 (Marrickville)	\$1.67m	\$3.20m	\$1.53m	92%	21%