

Appendix F

Economic Feasibility

Kellyville Station Precinct



Planning &
Environment

Kellyville Priority Precinct

Retail and Commercial Markets Strategy

NSW Department of Planning & Environment

Final



Document Control

Job ID: 17583SYD
Job Name: Kellyville Priority Precinct Retail and Commercial Markets Strategy
Client: Aver
Client Contact: David Riddell
Project Manager: Esther Cheong
Email: esther.cheong@aecgrouppltd.com
Telephone: 02 9283 8400
Document Name: Kellyville PP Retail and Commercial Markets Strategy Final
Last Saved: 1/9/2015 3:06 PM

Version	Date	Reviewed	Approved
Draft	18/12/2014	DC	EC
Final	31/08/2015	EC	EC

Disclaimer:

Whilst all care and diligence have been exercised in the preparation of this report, AEC Group Pty Ltd does not warrant the accuracy of the information contained within and accepts no liability for any loss or damage that may be suffered as a result of reliance on this information, whether or not there has been any error, omission or negligence on the part of AEC Group Pty Ltd or their employees. Any forecasts or projections used in the analysis can be affected by a number of unforeseen variables, and as such no warranty is given that a particular set of results will in fact be achieved.

Table of Contents

DOCUMENT CONTROL	I
TABLE OF CONTENTS	I
1. INTRODUCTION	1
1.1 BACKGROUND AND CONTEXT	1
1.2 BRIEF AND METHODOLOGY	2
1.3 REVIEW OF PREVIOUS STUDIES	3
2. SOCIO-ECONOMIC ANALYSIS	4
2.1 EMPLOYMENT PROFILE	4
2.2 HOUSEHOLDS AND DWELLINGS	6
3. EMPLOYMENT FLOORSPACE DEMAND	8
3.1 DRIVERS OF EMPLOYMENT GROWTH	8
3.2 EMPLOYMENT GROWTH PROJECTIONS	9
3.3 FLOORSPACE DEMAND PROJECTIONS	10
4. ACCOMMODATING FUTURE GROWTH	14
4.1 EXISTING PLANNING FRAMEWORK	14
4.2 RETAIL AND COMMERCIAL FLOORSPACE.....	14
4.3 OPPORTUNITY SITES	15
4.4 IMPLICATIONS FOR THE PRECINCT	16
5. PREFERRED DEVELOPMENT SCENARIO	17
5.1 ISSUES AND CHALLENGES	17
5.2 STAGING AND TAKE-UP	17
REFERENCES	19
APPENDIX A: FEASIBILITY ANALYSIS ASSUMPTIONS	20
APPENDIX B: KEY SITES TESTED	22



1. Introduction

1.1 Background and Context

This report has been prepared by AEC Group (AEC) and provides an assessment of retail and commercial markets relating to the proposed rezoning of the Kellyville Station Precinct.

The Kellyville Station Precinct was announced by the NSW Government in August 2014. The precinct is one of a number of Priority Precincts which aim to provide for more homes, jobs and improved public spaces close to transport and services. One of the key goals for Priority Precincts is to increase housing choice and affordability by delivering increased housing supply in an environmentally, socially and economically sustainable manner.

The Kellyville Station Precinct covers approximately 437 hectares, and includes the area within an 800 metre radius, or roughly a 10 minute walk, of the new Kellyville Station. The boundary has also taken into account the surrounding road network, natural features, and the development pattern of the area.

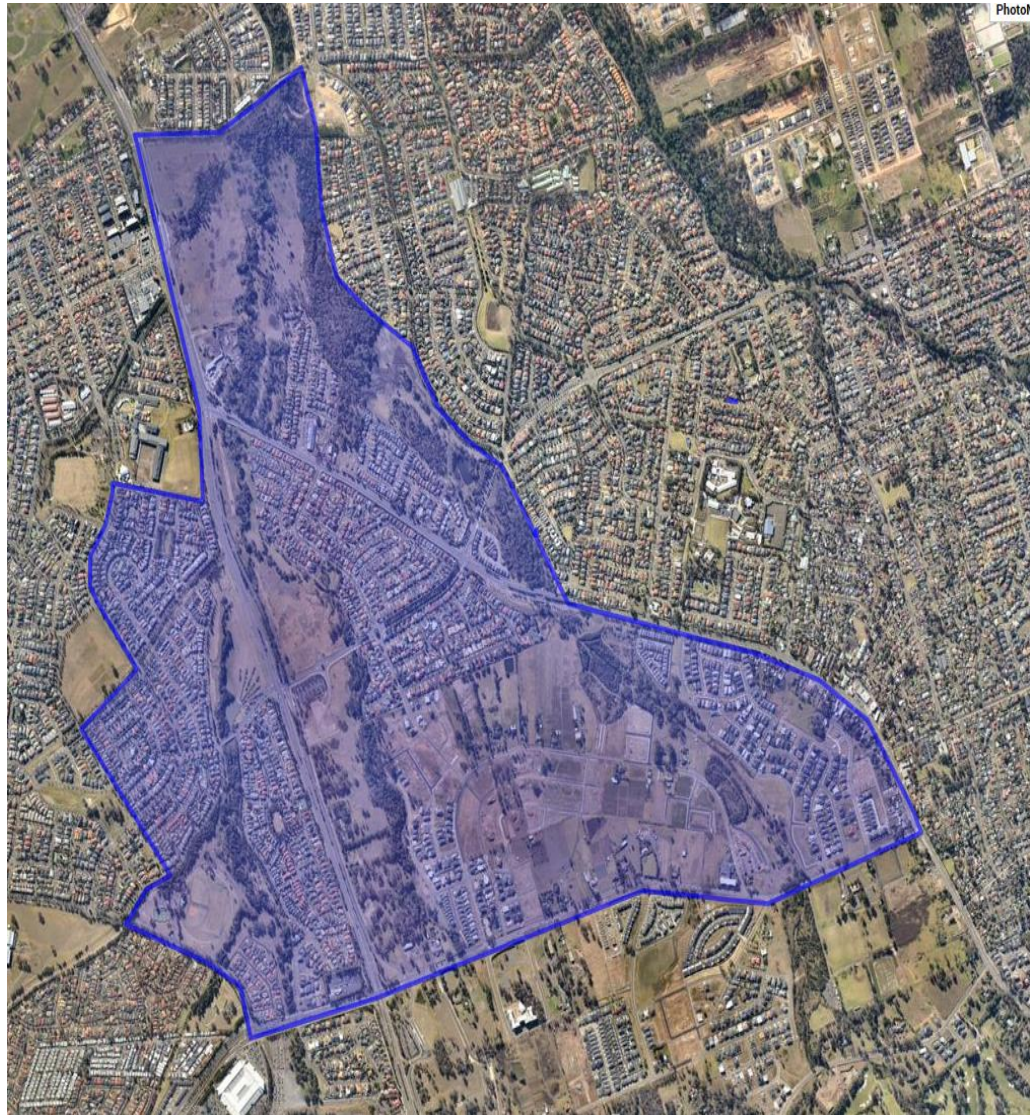
The precinct covers two local government areas. Land on the eastern side of Old Windsor Road is located within the Hills Local Government Area, and land on the western side of Old Windsor Road is within the Blacktown Local Government Area.

The vision for the Kellyville Station Precinct is for a business and commercial destination, as well as providing for a mix of housing types within walking distance of the new station, and ensuring the heritage, open space network and natural environment is protected.

The Kellyville Station Precinct is a long term project that will be delivered over the next 25 years.



Figure 1.1 - Aerial View of the Kellyville Station Precinct



Source: Nearmap (2014)

1.2 Brief and Methodology

AEC's role in the project was to carry out economic and market analysis to inform the formulation of a development scenario for structure planning and rezoning of the Kellyville Station Precinct (referred to as the Precinct). Specifically, AEC's scope involved the following tasks:

- Review of previous studies, building upon those findings as relevant.
- Identification of trends and influences for future employment and floorspace requirements.
- Projection of future employment and demand for floorspace.
- Collaboration with the project team to evaluate opportunity sites within the Precinct and their ability to accommodate employment growth.
- Examination of the feasibility of various development typologies, i.e. land use splits and density thresholds that would promote development on opportunity sites earlier identified.
- Following refinement of a preferred development scenario, assess:
 - 'Deliverability' and likely development period.
 - Issues and challenges, implications for take-up.

- Recommendations for appropriate planning controls that would facilitate and accommodate employment growth within the Precinct.

1.3 Review of Previous Studies

A number of technical studies have been carried out for the purposes of land use planning around NWRL station precincts. Key studies reviewed include:

- The North West Rail Link Corridor Strategy.
- North West Rail Link Market Research and Advice.

North West Rail Link Corridor Strategy

The NWRL Strategy (TfNSW, 2013) was prepared to help guide development within the six station precinct areas over the next 25 years. During the preparation of the Strategy engagement with the community, landowners, State and Local Government agencies was undertaken to inform the future vision for those precincts surrounding the NWRL stations. This led to recommendations for land use zones, densities and floorspace to guide future land use and development.

The introduction of the NWRL with the provision of a train station in Kellyville has the potential to transform the Kellyville UAP by providing a new focal point for a community centred around the new station. The new station precinct will be an opportunity to provide a mix of neighbourhood shops and services. The NWRL will also provide opportunities to increase residential densities within walking distance of the station involving a variety of housing types.

The Strategy identifies a requirement for an additional 4,400 dwellings between 2012 and 2036 with over 50% being in the form of multi-storey apartment blocks ranging from 3 to 12 storeys. In the same period, the Strategy identifies growth of an additional 800 jobs within the Kellyville Precinct.

North West Rail Link Market Research and Advice

A Market Research and Advice report (Hill PDA, 2011) examined the population and employment forecasts contained in the NWRL Corridor Strategy. The key findings of this report with respect to Kellyville precinct are that:

- A total of 6,800 dwellings will be required between 2016 and 2041.
- There will be an increase in population of 7,443 between 2019 and 2041.
- There will be growth of 344 additional workers in the Kellyville Precinct by 2041. This has implications for floorspace demand:
 - Cumulative demand for an additional 6,029sqm of retail floorspace by 2041.
 - Cumulative demand for an additional 2,382sqm of commercial floorspace for the Kellyville Precinct by 2041.

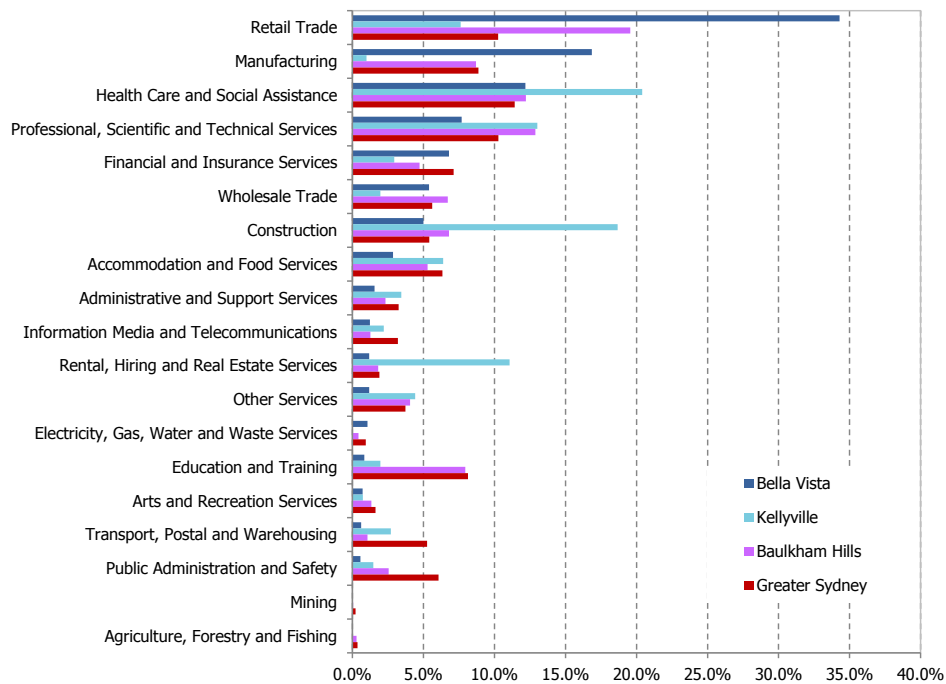
2. Socio-Economic Analysis

This Chapter provides an overview of employment structure of the Kellyville Precinct in comparison to adjacent Bella Vista Precinct and broader regions of Baulkham Hills SA3 and Greater Sydney region.

2.1 Employment Profile

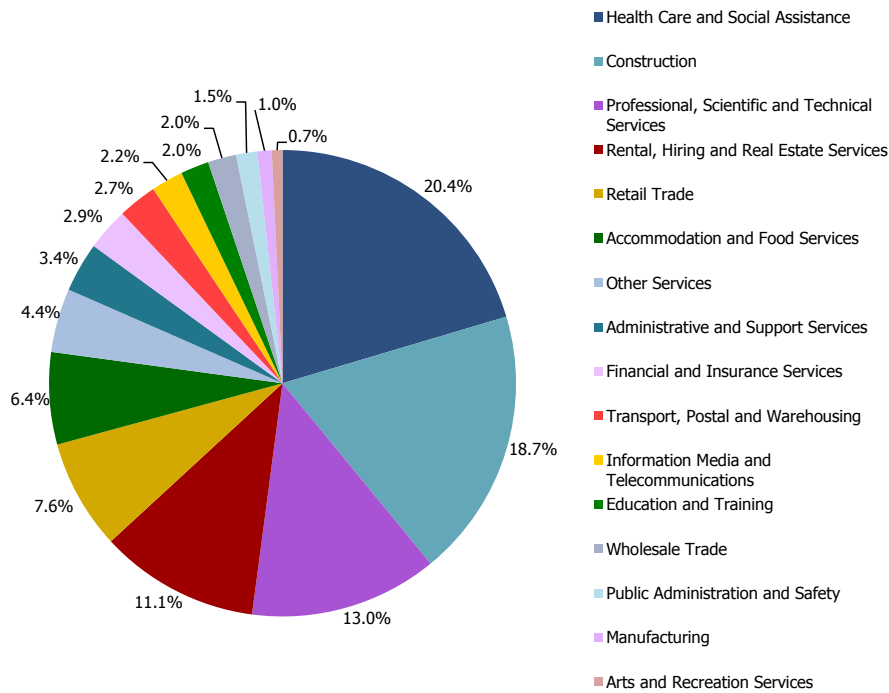
For Kellyville, health care and social assistance, construction and professional, scientific and technical services together employ 52.1% of the local workforce (or 214 workers).

Figure 2.1: Employment by Industry, 2011



Source: ABS (2012)

Figure 2.2: Employment by Industry, 2011, Kellyville

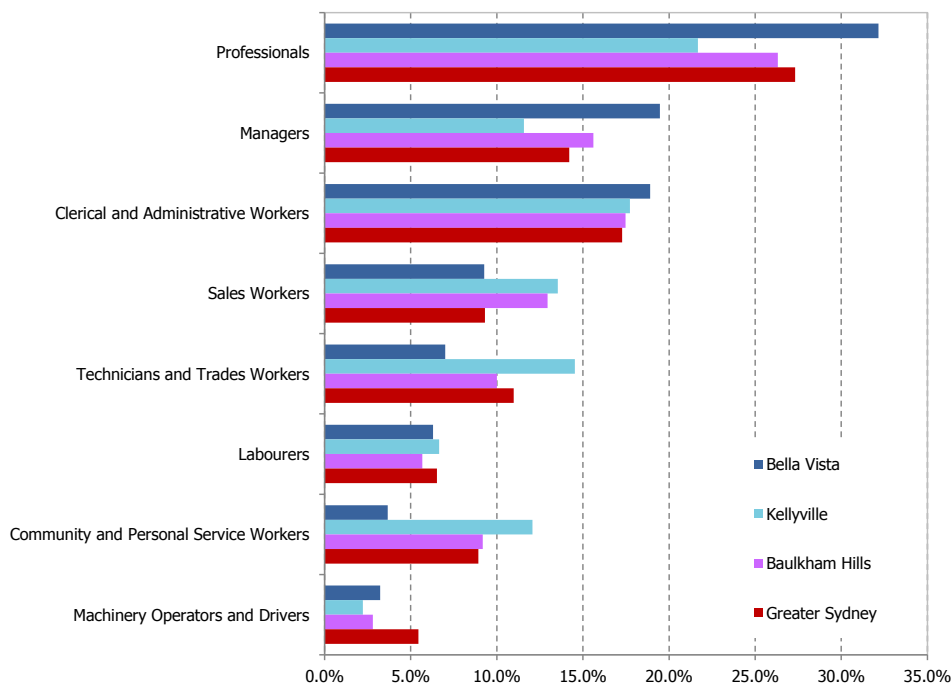


Source: ABS (2012)

Occupations in Bella Vista and Kellyville primarily consist of white collar jobs with a high proportion of professionals (32.2% and 21.7% respectively) and clerical and administrative workers (18.9% and 17.7% respectively).

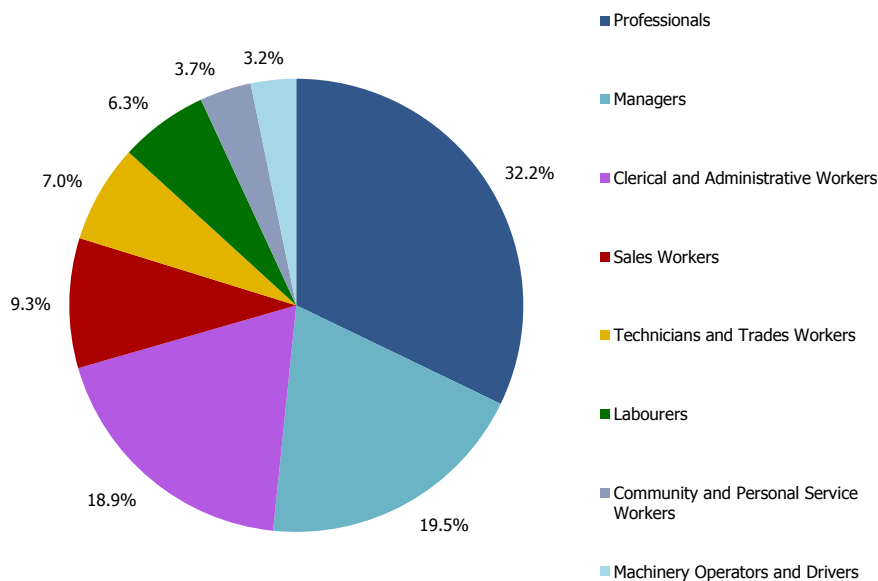
Kellyville is characterised by a relatively even distribution of occupations, while for Bella Vista, almost 75% of jobs are white collar.

Figure 2.3: Employment by Occupation, 2011



Source: ABS (2012)

Figure 2.4: Employment by Occupation, 2011, Kellyville



Source: ABS (2012)

The Kellyville workforce is notably highly self-contained with the majority of workers residing within the Hills Shire LGA or neighbouring Blacktown LGA.

Table 2.1: Origin of workers by Top 10 LGAs, Place of Work, Kellyville

LGA (PoW*)	Number of Workers in Kellyville
The Hills Shire (A)	814
Blacktown (C)	581
Hawkesbury (C)	441
Penrith (C)	386
Holroyd (C)	204
Hornsby (A)	125
Canada Bay (A)	103
Fairfield (C)	100
Parramatta (C)	97
Campbelltown (C) (NSW)	93

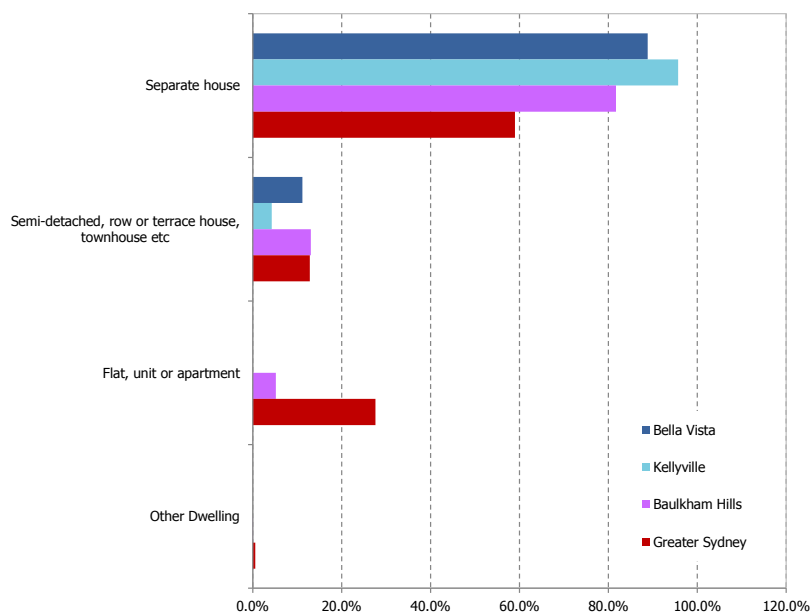
*Place of Usual Residence

Source: ABS (2012)

2.2 Households and Dwellings

Significantly, Kellyville currently has almost 90% of its residents living in a separate dwellings, reflective of the dominant dwelling structure for the Precinct. There are also very few existing units or apartments in the Kellyville Precinct which reflects the low density nature of the area.

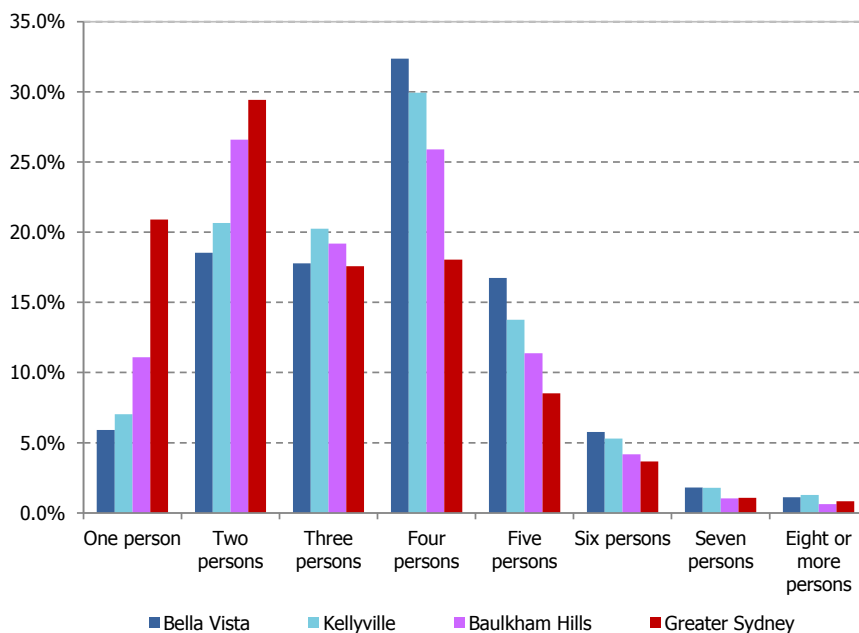
Figure 2.5: Dwelling Structure, 2011



Source: ABS (2012)

Kellyville also has a significantly higher number of family households when compared to Greater Sydney and Baulkham Hills. The nature of this household composition underpins present and future housing need.

Figure 2.6: Household Composition, 2011, Bella Vista



Source: ABS (2012)

For long term projects such as the NWRL, it is imperative that future employment land along the corridor has flexible planning controls which are able to respond to evolving employment conditions.

3. Employment Floorspace Demand

3.1 Drivers of Employment Growth

The Kellyville Precinct's employment structure is typical of an area that predominantly caters to local business and population need (in terms of health care and social assistance, construction, rental, real estate and hiring), the employment sectors demonstrating a local service role. Current economic structure, role and function will to a certain extent influence the future growth potential of a centre.

Although playing a relatively minor employment role, the two dominant industries represented in Kellyville are health care and social assistance and construction. Professional, scientific and technical services are also well represented in the Precinct. Businesses typically tend to cluster with like businesses, the current composition of tenants in the Precinct will influence the overall appeal for future businesses to locate therein.

Significant population growth is envisaged for the area following the completion of the NWRL. Ahead of construction and indeed completion of the NWRL and stations, ongoing and planned development activity is testament to industry expectation of housing need commensurate with expected population growth.

Looking forward, key drivers of employment growth include:

- **Household consumption**
This is a function of population growth. As the population grows, so too will demand for goods and services in the industries or retail trade and accommodation and food services. It is also an important contributor, though to a lesser extent, for the industries of education and training, health care and social assistance, arts and recreation services, and other services.
- **Local business**
As the population grows, the number of local businesses also grow generated by demand for their services. Most commercial-type activities, such as professional, scientific and technical services, rental, hiring and real estate services, administrative and support services, are typically reliant on local demand for goods and services. A notable exception is financial and insurance services, which is more reliant on demand from outside the LGA.
- **Demand from outside the Precinct**
Demand from outside Kellyville is a less important driver, hence more industrial style industries such as mining, manufacturing, electricity, gas, water and waste services, wholesale trade, and transport, postal and warehousing are not expected to play a major role in future employment.
- **Government expenditure**
Government expenditure is a key driver of demand for most public services, such as public administration and safety, education and training, and health care and social assistance. Underlying this demand by government are the needs of local population and business, which drives government expenditure on these services.

The role and function (past and present) will to a degree influence the future role of Kellyville - whether it plays a local service role or if it plays a more regionally significant role in providing employment.

An employment centre that plays a local service role typically is driven by household consumption and local business drivers, while a regional employment hub (like Parramatta) is driven by all the above drivers. Depending on the various drivers, the employment growth profile and growth industries will be different.

3.2 Employment Growth Projections

Methodology

Employment and additional floorspace demand projections for The Hills Shire and Blacktown LGAs and Kellyville Precinct were developed using the following approach:

- Projections of employment across 72 industries for NSW to 2031 were developed using AEC's NSW econometric model.
- Employment projections for NSW (by 72 industries) were distributed to NSW Statistical Divisions (SDs) and local government areas (LGAs) using a combination of population based and industry based coefficients to allocate employment growth of each industry to SDs/ LGAs.
- Population based coefficients were developed based on the proportionate contribution of each SD/ LGA to overall population growth in NSW over each five year time period. Population projections were as per NSW Government population projections (NSW DPE, 2014a).
- Industry based coefficients were developed based on the proportionate contribution each SD/LGA made to total employment in NSW in each industry in the previous time period (e.g., for 2016, the coefficient was equal to the proportion the SD/LGA made in 2011 to total NSW employment in that industry).
- The population and industry coefficients were aggregated based on estimates of household (population) versus industry demand for the goods/ services produced by each industry (as outlined in Input-Output transaction tables for NSW (ABS, 2013a)). The aggregate coefficients were rebalanced to ensure the sum of coefficients for each industry equalled 1.
- Employment projections for the Precinct were developed by distributing The Hills and Blacktown LGA projections to Transport Zones (TZs), using the same distribution process as outlined above. For the population coefficient, as no information was available to differentiate growth across TZs, each TZ was allocated an equal population coefficient.
- Employment projections in the Precinct were estimated based on employment in the TZs the precinct is located within. The Precinct does not comprise the entirety of the TZs they are located within, however, information was not available to identify the proportion of employment in each TZ that is located within a precinct. For transparency, if a TZ has a precinct located within its boundary, it was assumed that 100% of employment in the TZ is within the precinct(s) located in the TZ. Some precincts were combined for reporting as they are co-located within the same TZ boundaries. This process is referred to as "small area projections".

The limitations associated with small area projections are acknowledged. While the econometric model has regard to broader economic growth in the SD/LGA, it may not necessarily consider growth and development in a neighbouring LGA and broader service hierarchy demand.

Projections of additional floorspace demand were developed using gross floor area (GFA) to employee ratios for each of the 72 industries. These were then aggregated to different land use types (e.g. retail, commercial, industrial, institutional and other) for reporting.

Even though currently only accommodating a modest number of employees (500), by virtue of significant population growth expected, the Kellyville Precinct is projected to record more than 2,200 additional jobs to 2036, key growth industries to include:

- Healthcare and social assistance.
- Food and accommodation services.
- Education and training.
- Retail trade.

Key drivers of growth are likely to comprise a combination of household consumption and local business. Demand from business/industry outside the Kellyville Precinct is expected to be marginal.

Table 3.1: Additional Employment Projections by Industry, Kellyville

Industry	2011-16	2016-21	2021-26	2026-31	2031-36
Agriculture, Forestry and Fishing	0	0	0	0	0
Mining	0	-0	0	0	0
Manufacturing	1	0	0	0	0
Electricity, Gas, Water and Waste Services	0	0	0	0	0
Construction	18	34	28	27	22
Wholesale Trade	-7	-1	0	0	0
Retail Trade	67	84	88	77	58
Accommodation and Food Services	58	54	56	49	39
Transport, Postal and Warehousing	-3	5	8	9	8
Information Media and Telecommunications	8	5	3	3	2
Financial and Insurance Services	4	6	8	9	8
Rental, Hiring and Real Estate Services	-1	10	15	15	13
Professional, Scientific and Technical Services	7	12	14	16	13
Administrative and Support Services	3	4	4	4	4
Public Administration and Safety	25	35	45	37	29
Education and Training	36	61	68	66	66
Health Care and Social Assistance	75	117	142	116	121
Arts and Recreation Services	19	10	10	10	11
Other Services	-2	26	31	28	21
Total	309	464	522	467	413

Source: ABS (2013a, 2013b, 2013c, 2014a, 2014b, 2014c, 2014d), BTS (2014).

Employment growth projections found that a total of 2,700 jobs would be accommodated in the various transport zones within the Kellyville precinct between 2011 and 2036, representing an additional 2,174 jobs over the projection period. This is broadly in line with expectations of the NWRL Corridor Strategy.

Table 3.2: Employment Growth Projections

Employment	2011	2016	2021	2026	2031	2036
Employment	526	835	1,299	1,820	2,287	2,700
Additional Employment	-	308	464	522	467	413

Source: AEC (2014)

The NWRL Corridor Strategy included various employment forecasts for the Kellyville precinct. The Strategy found that in 2012, there were an estimated 100 jobs in the precinct. This figure was expected to rise to 900 jobs by 2036 – an increase of 800 jobs (TfNSW, 2013).

3.3 Floorspace Demand Projections

Demand for floorspace has been estimated in Gross Floor Area (GFA) terms, using ratios of GFA per employee for each of the 72 industries modelled.

Employment projections and gravity modelling suggest projected demand for an additional 82,198sqm of GFA between 2011 and 2036 in the Kellyville Precinct, which equates to around 3,288sqm GFA per annum.

The floorspace demand projections are aggregated across retail, industrial, commercial, institutional and 'other' types of floorspace.

Institutional and commercial uses are each projected to account for a third of total GFA demand in the Precinct to accommodate key growth industries, the former principally for health care and the latter for professional, scientific and technical services.

Table 3.3: Additional Floorspace Demand Projections (GFA, sqm)

Land Use	2011-16	2016-21	2021-26	2026-31	2031-36	Change 2011-36
Primary Industries	60.5	19.2	40.0	40.8	35.6	196.1
Industrial	679.4	2,840.8	2,589.4	2,527.6	2,061.5	10,698.8
Utilities	-176.1	478.3	706.5	836.3	735.3	2,580.4
Retail	3,769.6	5,107.1	5,498.6	4,802.2	3,685.9	22,863.5
Accommodation	206.9	162.0	145.9	147.7	109.8	772.3
Office/Commercial	1,551.7	1,832.5	2,066.9	1,945.3	1,550.0	8,946.3
Institutional Uses*	5,133.8	7,385.9	8,399.9	7,622.5	7,598.6	36,140.6
Other^	0.0	0.0	0.0	0.0	0.0	0.0
Total	11,225.7	17,825.8	19,447.2	17,922.5	15,776.7	82,197.8

*'Institutional' refers to floorspace within establishments like hospitals, schools, museums, libraries

^'Other' refers to primary industries (agriculture and mining), utilities, accommodation, and other uses not appropriately captured in other categories (e.g. that may include private households employing staff, or mobile workers such as sub-contractors in the construction industry).

Source: AEC (2014)

Employment projections are carried out by TZ (as outlined in section 3.2) and thereby cover an area larger than the Precinct. As a consequence not all floorspace demand projected is expected to be met in the Precinct, particularly where land use zones in the Precinct do not facilitate certain land uses.

Following is a discussion by key floorspace type and suitability of accommodation within the Precinct.

3.3.1 Retail Floorspace Demand

Retail businesses generally seek to cluster with like business in order to benefit from the synergies of co-location.

Floorspace demand projections for 'retail trade' in Table 3.3 relate to those activities classified by the ABS. Retail trade activities cover traditional retail as well as large format (or bulky goods) retail and include the following:

- Motor vehicle and motor vehicle parts retailing;
- Fuel retailing;
- Food retailing (supermarket and grocery stores, specialised food);
- Other store-based retailing (furniture, floor coverings, hardware, building and garden supplies, department stores, etc.);
- Non-store retailing and retail commission-based buying and/or selling (direct selling of goods, internet retailing, etc.). This class is engaged in retailing goods without the use of a shopfront or physical store presence, including milk vendors, sole e-commerce retailers, etc.

Many of the categories of retail trade activities (e.g. motor vehicle retailing, furniture, floor coverings, building and garden supplies retailing, etc.) are referred to as being part of the bulky goods sector, or large format retail sector. This sector refers to any operator who provides a physically large product. Bulky goods operators require large floorplates and seek to cluster together with other similar uses in order to attract trade, critical to their financial viability.

Owing to the limited provision of large sites capable of supporting bulky goods/large format clusters within or adjacent to centres and because bulky goods/large format retailers trade at relatively lower floorspace per metre rates compared to other (traditional) retail operators, they are usually facilitated in out-of-centre clusters such as along Victoria Avenue in Castle Hill.

Another trend which has been emerging is for non-bulky goods retailers to locate next to bulky goods in out-of-centre locations. This includes discount variety stores, category killers such as liquor, pets, toys, baby supplies as well as supermarkets. Bulky goods/large format clusters offer the ability for retail uses to cluster together and are well serviced by

vehicular access, explaining their attraction to non-bulky goods operators. They also offer cheaper land/rents than centres.

Higher order shopping needs like apparel, footwear and household goods are expected to be met in nearby centres such as super regional shopping centre Castle Towers and regional shopping centre Rouse Hill Town Centre.

Considering that bulky goods and higher order retail needs are more suitably met in other locations, a proportion of projected retail floorspace demand (up to 10,000sqm) could be accommodated in the Precinct, including a full line supermarket and associated specialty stores.

3.3.2 Institutional Floorspace

Institutional floorspace demand encompasses demand for institutions such as universities, schools, hospitals and health centres. This is projected to record the largest increase of all floorspace types.

Provision of preschool and school education as well as medical facilities are part of social infrastructure planning with the majority of this floorspace provide by state government agencies such as Department of Education and Ministry of Health. That said, private participation is increasingly significant with the provision of private medical facilities, training centres and child care centres often co-located with retail facilities.

As identified in section 0, 'health care and social assistance' is one of the growth industries projected in the Precinct, accordingly driving demand for institutional floorspace in the Precinct.

3.3.3 Commercial Floorspace

The nature of commercial floorspace demand can be distinguished into the types of activity that it accommodates:

- **Local and regional business, professional services offices**

These types of businesses generally locate within business parks or office parks including in Bella Vista and Norwest. Additionally, professional services offices that accommodate accountants, architects, interior and graphic designers, etc. in locations that are accessible by public transport and benefit from amenity and services offer will increasingly be in demand. These types of business are not expected to be drawn to Kellyville on a large scale.

- **Services industry**

Real estate agents, tax agents, financial advisors, etc. are driven by population growth and require commercial type floorspace within retail centres/population catchments. Kellyville is expected to experience demand for this type of commercial floorspace, i.e. service commercial tenants who seek to locate close to key population markets.

- **Floorspace that complements an industrial-type activity**

Most industrial activities have an office/administrative component for administering marketing, distribution and sales as well as packaging and distribution, and research and development. Industries such as food and beverage manufacturing, construction and building activities, etc. typically have a commercial floorspace requirement.

This type of commercial floorspace is typically attached to a larger industrial facility and in some cases combine a variety of functions in the same building, e.g. sales and marketing staff, admin and clerical as well as product research and development.

Demand for this type of commercial floorspace is expected to gravitate to existing business parks and industrial precincts.

A large proportion of demand for service-commercial floorspace is expected to met within the new local centre in and around the new train station.

3.3.4 Industrial Floorspace

Owing to planning requirements, industrial-type activities are generally located in designated industrial areas. As a consequence the projected demand for industrial floorspace is expected to be met outside the Precinct, including Castle Hill Industrial Area.

In line with population growth expectations and current economic/employment structure in Kellyville, employment growth expectations are commensurate. The next chapter examines how and where this additional growth could be accommodated.



4. Accommodating Future Growth

4.1 Existing Planning Framework

The Kellyville Precinct straddles the Hills Shire and Blacktown LGAs. Applicable planning instruments include The Hills Local Environmental Plan 2012, Blacktown Local Environmental Plan 1988 and the draft Blacktown Local Environmental Plan 2013.

Existing zones include B7 Business Park, R1 General Residential, R2 Low Density Residential and R3 Medium Density Residential and SP2 (Railway Corridor).

The Precinct is primarily characterised by low density residential areas, residential subdivisions incorporating freestanding dwellings.

Historically, dwellings have been developed on larger lots ranging from 600sqm to 800sqm however recent higher density development is becoming more prevalent in the form of townhouses and medium density development sold off-the-plan.

Kellyville Ridge, located on Merryville Road includes a mix of 1, 2 and 3 bedroom units with selling agents indicating high demand for units in the area from young professionals and investors.

There also remains considerable larger tracts of land available for future development with sizes typically ranging from 1.5 hectares to 3 hectares.

4.2 Retail and Commercial Floorspace

4.2.1 Retail Floorspace

Demand for additional retail floorspace has been projected to be in the order of 23,000sqm between 2011 and 2036. In line with commentary in section 3.3.1, not all of the retail floorspace demand is expected to be accommodated within the Precinct for the following reasons:

- Retail floorspace demand projections include traditional retail as well as large format (bulky goods) retailing activities. Activities such as motor vehicle retailing, fuel retailing, homewares and bulky goods retailing do not translate into shopfront retail space in a precinct like Kellyville. These types of retailers will cluster with other large format retailers in locations such as Victoria Avenue in Castle Hill.
- According to planning principles, the provision of retail floorspace should be accommodated within a hierarchy of centres. As such, higher order centres (e.g. Castle Hill) would accommodate floorspace for comparison shopping (e.g. apparel, footwear and household goods) while lower order centres would address more convenience type shopping needs.

Bulky goods uses should ideally be accommodated in centres but because of their large land area and requirements for accessibility and their need to cluster together with similar uses to ensure viability, they are usually facilitated in edge or out-of-centre land use zonings.

Ultimately the decision to provide for additional lands for retail floorspace depends on a myriad of factors which include availability of capacity in centres, traffic and transport, economic impact, net community benefit and so on. The sequential test as articulated in the Draft Centres Policy (DP&I, 2009)) should be given regard to.

It is recommended that provision for a retail centre of between 5,000sqm and 10,000sqm is made. This would provide for a supermarket, specialities and associated service commercial. Demand for commercial space is likely to be driven primarily by local business need (e.g. medical practitioners, real estate agencies, etc.).

Opportunities to provide appropriate said retail in conjunction with residential development should be explored, noting the requirements of supermarkets for contiguous space.

4.2.2 Commercial Floorspace

The current employment structure of Kellyville suggests employment in the Precinct is driven primarily by household consumption (population growth) and local business, and not by industry-led demand (i.e. demand from industry beyond Kellyville). See section 3.1 above for more detailed discussion.

There is presently a modest amount of employment in the Kellyville Precinct, likely to include a range of small local businesses.

Demand for additional commercial floorspace has been projected to be in the order of 9,000sqm between 2011 and 2036, equivalent to average annual demand of around 360sqm.

While the completion and opening of the train station at Kellyville will facilitate the servicing of residents therein, any new commercial floorspace is envisaged to be limited to a local service role.

The challenges of accommodating increased traffic generation in the Precinct are acknowledged. With the provision of public transport infrastructure, there is opportunity for reducing current parking ratios from 1 space per 25sqm GFA to 1 space per 40sqm GFA. Parking ratios of up to 1 space per 60sqm could be considered in light of traffic and access issues, however we would caution that this could impact the future marketability of commercial floorspace within the Precinct. Notwithstanding, if parking ratios are imposed as 'minimums', industry would have the opportunity to respond to market requirement/need as appropriate.

4.3 Opportunity Sites

Owing to existing built form and lot configuration, the availability of opportunity sites that could accommodate redevelopment in the immediate term is limited. Amalgamation of sites means higher acquisition costs for site assembly, thereby requiring higher residential densities for viable development.

Notwithstanding current land use and built form patterns, the project team identified a number of privately held opportunity sites in the Precinct as having the potential for development to accommodate future growth as envisaged. Sites already in contiguous government ownership were not tested for financial feasibility - their capacity for accommodating new residential and non-residential uses required primarily to meet urban design, traffic and environmental considerations.

Generic feasibility testing was carried out at a high level, to ascertain the planning controls required to facilitate feasible development of those identified opportunity sites.

4.3.1 Generic Feasibility Testing

The Residual Land Value (RLV) approach has been adopted as the method of assessment, utilising development feasibility software Estate Master in the analysis. The RLV approach involves assessing the value of the end product of the development, allowing for development costs, a making a further deduction for the profit and risk that a developer would require to take on the project.

A key metric for development feasibility is land value, which is a 'residual' after all costs and revenues are taken into account. The figure must be of a sufficient amount to encourage the owner to sell and/or displace the current use. The Residual Land Value must exceed the 'as is' value of the land, i.e. the value of the land in its existing use including all improvements.

Various sites, individual and part of a larger area, have been identified for preliminary feasibility testing. A description of these sites is outlined below based on aerial imagery and desktop observations.

Table 4.1: Opportunity Sites for Generic Feasibility Testing

Site	Address	Site Area (sqm)	Land Use Zone	Existing Improvements*
1	1-5 Somerset Street 33 Roxburgh Crescent Stanhope Gardens	2,502	R2	4 existing residents within established residential area within walking distance to future Kellyville station

*Desktop observation from aerial imagery
Source: AEC

A desktop analysis of historical sales evidence was carried out, enabling a high level assessment of likely site values ('as is') of the individual sites. The 'as is' values plus a premium to incentivise amalgamation of lots are assumed as the 'minimum' land cost amount required by individual landowners, underpinning the cost of land which is necessary for amalgamation of a development block.

After incorporating the 'minimum' land cost deemed required to displace existing uses and facilitate site amalgamation and assembly, developments that then achieve target hurdle rates (development margin and project discount rate) are considered to be financially feasible. The feasibility modelling assumptions are included in Appendix A of this report.

A major difficulty associated with potential redevelopment in Stanhope Gardens is acknowledged, with most of the estate held under community title. If site assembly is problematic and unlikely to be forthcoming, the generic feasibility testing results are largely academic.

A number of opportunity sites are identified to the east of the new Kellyville train station. These are labelled E, F, G, H and I. Some of these sites are either already improved upon with low density residential dwellings or planned for subdivision into freestanding dwellings. In the case of sites that are yet to be built upon, there is an opportunity to consider residential uses that are of a higher density typology. Recognising that multi-level apartment buildings could be inappropriate and inconsistent with the low density character of the area, consideration for row housing (terraces) or townhouse developments could be contemplated. On sites still as yet vacant and unimproved, row housing or townhouses could represent a commercial proposition.

4.3.2 Summary of Results

Based on generic feasibility modelling and after allowing for the cost to assemble a development block (including land cost with a 20% premium) in Stanhope Gardens, a minimum density threshold of FSR 2.5:1 was found to be required to facilitate feasible residential development (subject to site assembly).

Feasibility testing at various timeframes suggests that feasibility improves towards 2020 and 2021 as expected end sale values of completed product are expected to increase against and exceed 'as is' site values. That said, this is subject to the ability of a developer to assemble a development block.

Further details on the notional development schemes tested and more detailed discussion of results are included in Appendix B.

4.4 Implications for the Precinct

Based on projections of employment, floorspace demand and generic feasibility testing the following recommendations are made:

- Plan to accommodate a retail/commercial centre 5,000sqm-10,000sqm in and around the new station. Layout and configuration of the retail space should be sufficiently contiguous to accommodate a supermarket. Likely commercial users would include urban support services (e.g. medical practitioners, real estate agencies, home renovation specialists, etc.).
- Consider reviewing parking ratios for commercial space to 1 space per 40sqm GFA reflective of the transport modal shift expected to occur following completion of NWRL. Caution is recommended when considering ratios lower than this, as the availability of parking to business occupiers underpins overall desirability. 'Minimum' and 'maximum' parking ratios could be considered to limit traffic generation, while still enabling the market to respond to occupier need.

5. Preferred Development Scenario

5.1 Issues and Challenges

Conybeare Morrison (CM+) have developed a preferred development scheme, a mix of uses and development yields envisaged for a number of opportunity sites within the Precinct.

Sites A, B and C (in government ownership) are located along the rail corridor, buildings envisaged to range from 4 to 8 storeys. A mix of uses will be accommodated to provide for more than 4,000 new dwellings (more than 9,000 new residents) and 400 new jobs (11,000sqm GFA).

Sites A, B and C are in government ownership and accordingly there are no issues with lot fragmentation and misalignment of ownership objectives. The key risk for these opportunity sites is the 'less established' nature of high density residential living in the area. Dominated by separate houses and low density residential uses, Kellyville has traditionally accommodated family households. As a consequence there remains a question on the market acceptance of the type of product envisaged. This has obvious implications on the feasibility of future projects and presents a key market risk to developers.

Notwithstanding current dwelling structure and existing built form, it is reasonable to expect that with the completion of the NWRL, the demographic of Kellyville will shift. Demand from young professionals and investors who see obvious benefits from the NWRL line and proximity to key centres such as Norwest and Rouse Hill are likely to play an increasing role in market demand.

The provision of retail and supporting commercial floorspace is considered essential to the success of any transit-oriented development. This results in the activation of ground level floor space and avoids the area transitioning to a residential dormitory suburb outside of working hours.

5.2 Staging and Take-up

5.2.1 Residential Uses

Development of Sites A, B and C could commence immediately following rezoning of the Precinct, enjoying obvious benefits of being located in and around the new station.

The two most important drivers of long term residential demand are population growth and household size. Short term and cyclical variations occur as a result of other factors such as interest rates, employment levels, market confidence, etc.

Based on supply capacity of opportunity sites in the Precinct, CM+ have estimated potential supply of new dwellings over time. The limitations of this estimate should be recognised as it does not account for individual property specifics/circumstances including existing buildings and income streams, landowner intentions, etc. As a consequence it is necessary to temper the estimate of potential dwellings based on theoretical supply capacity against likely demand.

An opportunity exists for a master developer to develop the internal road and open space networks and supporting infrastructure to get the precinct development-ready. This has obvious benefits for future integration with the NWRL and avoids piecemeal development. The development blocks can then be sold as 'super lots' to third party developers.

Market research suggests a residential take-up rate of between 10 to 12 units per month or 120 to 144 per annum. When development is progressed on several fronts (offering a diversity of product type and market positioning), overall take-up could approach 240 per annum. Noting market fluctuation throughout the development period, it is expected development of the Kellyville Precinct will span between 20 and 25 years.

5.2.2 Retail/Commercial Uses

The delivery of retail/commercial floorspace will be driven by the following key factors:

- **Population growth and consequent need for goods and services**

As discussed in section 3.1, population growth and household consumption drives employment growth. This spurs the formation of new businesses and expansion of existing businesses, which also drive employment growth.

- **Completion of significant economic infrastructure, the NWRL**

While the notion of improved connectivity to the Precinct will increase the appeal of the Precinct as a business location, the current economic structure of Kellyville is unlikely to attract many businesses from beyond, and who are presently 'unconnected' with the Precinct.

The retail/commercial centre in the Precinct is expected to play a local service role, catering to the convenience shopping needs of nearby residents. This envisaged role would be akin to that of a B2 Local Centre zoning.


Retail/commercial floorspace that respond to the former key drivers (household consumption and local business need) typically require critical mass. Accordingly take-up and delivery of these types of retail/commercial uses (e.g. supermarket and specialties and associated urban support commercial floorspace) is expected to follow dwelling take-up.



References

- 
- ABS (2012a). Census of Population and Housing, 2011. Cat. No. 2001.0. ABS, Canberra
- ABS (2013a). *Population by Age and Sex, Regions of Australia*. Cat. No. 3235.0. Australian Bureau of Statistics (ABS), Canberra.
- ABS (2013b). Australian National Accounts: Input-Output Tables, 2009-10. Cat. No. 5209.0.55.001. Australian Bureau of Statistics, Canberra.
- ABS (2013c). Australian National Accounts: State Accounts, 2012-13. Cat. No. 5220.0. Australian Bureau of Statistics, Canberra.
- ABS (2014a). Regional Population Growth, Australia, 2013. Cat. No. 3218.0. Australian Bureau of Statistics, Canberra.
- ABS (2014b). Australian National Accounts: National Income, Expenditure and Product, Mar 2014. Australian Bureau of Statistics, Sydney.
- ABS (2014c). Labour Force, Australia, Detailed - Electronic Delivery, May 2014. Cat. No. 6291.0.55.001. Australian Bureau of Statistics, Canberra.
- ABS (2014d). Labour Force, Australia, Detailed, Quarterly, May 2014. Cat. No. 6291.0.55.003. Australian Bureau of Statistics, Canberra.
- Colliers (2005-2013). *Suburban Office Market Reports*. Colliers International.
- Colliers (2014). *Metropolitan Office Research and Forecast Report, second half 2014*. Colliers International.
- Hill PDA (2011). *Market Research and Advice*. Prepared for Department of Planning & Infrastructure.
- NSW Department of Planning an Environment and NSW Department of Transport (2013). *North West Rail Link Corridor Strategy*, Sydney
- DPI (2013). *Draft Metropolitan Strategy for Sydney to 2031*. NSW Department of Planning and Infrastructure (DPI). Available from: <http://strategies.planning.nsw.gov.au/MetropolitanStrategyforSydney.aspx>. Last accessed: September 2014.
- DPI (2009). *Draft Centres Policy*. NSW Department of Planning and Infrastructure.
- NSW Department of Planning an Environment and NSW Department of Transport (2013). *North West Rail Link – Bella Vista Station Structure Plan*, Sydney

Appendix A: Feasibility Analysis Assumptions



The generic feasibility testing adopts the Residual Land Value approach. This involves assessing the value of the end product of the hypothetical development, and then deducting all of the development costs (including site acquisition costs, site demolition and / or clearance, consultant fees for design and project management, developer levies and taxes, construction costs), and making a further deduction for the profit and risk that a developer would require to take on the project. The land value is the 'residual' that remains, i.e. the amount a developer could afford to pay in exchange for the opportunity to develop the site.



PROJECT TIMING

Development application is assumed to be progressed immediately upon settlement with pre-sales occurring shortly thereafter. Construction is assumed to begin in Month 15 and span for 18 months, sale of remaining units to be completed immediately following.



REVENUE ASSUMPTIONS

- Residential end sale values:
 - 1 bedroom units from \$500,000;
 - 2 bedroom units from \$700,000; and
 - 3 bedroom units from \$850,000.
- Revenue was assumed to escalate at 3.0% per annum.
- It was assumed that 50% of apartments would be pre-sold prior to construction and the balance would be settled after construction at the rate of 10 units per month.
- Other revenue assumptions:
 - GST is included on the residential sales.
 - Sales commission and legal costs on sales was included at 2.5% of gross residential sales and 2.0% of net retail sales.
 - Legal cost on sales was included at 0.3% of gross sales.

COST ASSUMPTIONS

- Land purchase cost is based on existing use and based on comparable site sales within the area and included a 20% premium considered appropriate for site amalgamation. 'As is' site values assumed are:
 - Sites 2 to 5 at \$330/sqm to \$420/sqm of site area.
 - Site 1 at \$720/sqm of site area.
- Legal costs, valuation and due diligence was assumed at 0.5% of land price and stamp duty was included. These costs to be paid at settlement assumed in Month 3.
- Cost escalation of 3% per annum was assumed to commencement of construction.
- Construction of residential units was assumed at \$2,500/sqm of GFA with balconies assumed at \$1,000/sqm.
- Basement car parking was included at \$40,000 per space.
- Demolition and clearing costs were costed at \$57 per square metre of site area.
- A further 2.0% of construction cost was included for site works, landscaping and services.
- A further 5% construction contingency allowance (to cover risks) was included.
- Professional fees and application fees at 8.5% of construction costs.
- Development management fee at 2% of project cost (excluding land and finance).
- Section 94A contributions were included at 1.0% of construction costs, development approval fees at 10% of s94A contributions.

- Advertising and marketing costs were included at 1.5% of gross sales.
- Land holding costs including land tax, Council and water rates based on assumed unimproved land values.
- Project contingency of 5.0% (of total project costs net of land and finance).
- Developer's equity is assumed at 25% of land acquisition cost. Equity is progressively injected when required.
- The balance of project cost is assumed to be debt funded with interest capitalised monthly (nominal 7.0% per annum).
- Finance establishment costs at 0.35% of project debt.

HURDLE RATES AND PERFORMANCE INDICATORS

Target hurdle rates are dependent on the perceived risk associated with a project (planning, market, financial and construction risk). The more risk associated with a project, the higher the hurdle rate. A number of performance indicators are relied upon when ascertaining the feasibility or otherwise of a development.

- **Development margin** is the profit divided by total development costs (including selling costs).
- **Residual Land Value** – this has been determined by establishing the maximum land value a developer is willing to pay based on a 20% internal rate of return (IRR) taking into account all other costs and project revenue.
- **Development Profit** – this represents the total revenue less total cost including interest paid and received.
- **Discount Rate** – this refers to the project internal rate of return (IRR) at which the net present values of an investment becomes zero.

Adopted hurdle rates are 20% developer's margin and 20% discount rate, in line with industry expectations.

If the resulting profit from this feasibility analysis is large enough to meet the target hurdles (in this case the discount rate), the project is considered financially viable for redevelopment.

Appendix B: Key Sites Tested

SITE 6 - 1-5 SOMERSET ST & 33 ROXBURGH CR, STANHOPE GARDENS

Site 6 is the smallest of the six sites (2,502sqm) and is located in the established suburb of Stanhope Gardens. The site is comprised of four individual detached dwellings on lot sizes ranging from 450sqm to 735sqm. Historical site transactions suggest 'as is' land values to be in the order of \$1,342/sqm of site area which takes into account existing improvements on the sites.

Figure A1: Aerial Photographs of 1-5 Somerset Street and 33 Roxburgh Crescent (Site 6)



Source: Nearmap

The site is located only 120m west of the proposed Kellyville station precinct. The following notional development yields are subject to feasibility testing to ascertain the minimum density thresholds required to accommodate feasible residential development.

A number of staging scenarios were additionally tested to examine when/if at FSR 2:1, residential development could be feasible on the sample site.

Table A1: Site 6 Notional Development Option

Site 6	2015	2020	2021
Site Area	2,502sqm	2,502sqm	2,502sqm
Density (FSR)	2:1	2:1	2:1
Indicative Development Yield (GFA)	4,003sqm	4,003sqm	4,003sqm
Number of Units	53	53	53
Basement parking	53	53	53
Performance Indicators			
Project IRR	19.5%	21.84%	22.2%
Development Margin	17.6%	21.23%	21.7%
Residual Land Value (RLV)	\$3,931,182	\$5,339,420	\$5,624,143
RLV (\$/sqm of site area)	\$1,571	\$2,134	\$2,248
Assumed 'as is' value (\$/sqm of site area)	\$1,611	\$1,960	\$2,039
Feasibility	Marginally Feasible	Feasible	Feasible

Source: AEC

Development to FSR 2:1 is marginally feasible on Site 6, with performance indicators achieving just under minimum hurdle rates. To be immediately feasible, densities exceeding FSR 2:1 would be required; subject to urban design, traffic and other considerations, there could be an opportunity to accommodate development beyond the marginal threshold of FSR 2:1.

Testing at various timeframes suggests that feasibility (at FSR 2:1) improves towards 2020 and 2021 as expected end sale values of completed product increases against and exceeds 'as is' site values.

The feasibility of development is underpinned by the ability of the site to be assembled for development. Community title ownership arrangements can be as challenging for site assembly as strata titled developments.



Brisbane	Level 5, 131 Leichhardt Street Spring Hill QLD 4000	PO Box 942 Spring Hill QLD 4004	T +61 7 3831 0577
Darwin	Level 1, Paspalis Centrepoint Building 48-50 Smith Street Mall Darwin NT 0800		T +61 8 8943 0600
Melbourne	Level 13, 200 Queen Street Melbourne VIC 3000	GPO Box 4500 Melbourne VIC 3001	T +61 3 8648 6586
Perth	Level 2, 580 Hay Street Perth WA 6000 Australia	PO Box 2576 St Georges Terrace Perth WA 6831	T +61 8 6555 4940
Sydney	Level 3, 507 Kent Street Sydney NSW 2000	PO Box Q569 QVB Post Office Sydney NSW 1230	T +61 2 9283 8400
Townsville	233 Flinders Street East Townsville QLD 4810	PO Box 5804 Townsville QLD 4810	T +61 7 4771 5550
Bangkok	Level 11 Glas Haus Building 1 Soi Sukhumvit 25, Sukhumvit Road Wattana, Bangkok 10110 Thailand		T +66 2 402 8400
Shanghai	46F Hongkong New World Tower, 300 Huahai Road Central 200021 China		T +8621 6135 2310