Planning Proposal

25 George St, North Strathfield

June 2016

urbis

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Report Number	Planning Proposal Final.1
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INTRODUCTION

This Planning Proposal report has been prepared by Urbis on behalf Piety THP (the proponent), and seeks to amend the *Canada Bay Local Environmental Plan 2013* (CBLEP) as it applies to 25 George Street, North Strathfield (the subject site). The Planning Proposal is submitted to City of Canada Bay Council in accordance with Clause 55 of the *Environmental Planning and Assessment Act 1979* and the Department of Planning and Environments 'A guide to preparing planning proposals'.

The objective of the planning justification report is to enable the development of the subject site for a residential development in accordance with Council's desired land uses for the site, informed by the Draft Concord West Precinct Master Plan, released May 2014. The Planning Proposal seeks to facilitate a built form that is overall consistent with this Precinct Master Plan. The rezoning of the subject site will complete a missing piece within a medium density residential corridor and remove a conflicting land use.

CONCEPT DESIGN

A concept design for the subject site including preliminary plans has been prepared by Anthony Vavayis and Associates based on schemes prepared for discussions with Council, and is provided at **Appendix A**. The concept design would form the basis for a future site specific Development Control Plan and development application following the Planning Proposal process. The key features of the concept design include:

- A maximum height limit of 22 metres (6 storeys) towards the rear of the site.
- A 16 metre (4 storeys) height limit at the frontage with George Street.
- Central communal open space, adjacent to the communal open space of 23 George Street.
- Basement car parking, consistent with Council's parking provisions.

Whilst the concept design scheme presents minor departures from the draft Concord West Precinct Master Plan, the analysis demonstrates that detailed study has allowed for a better urban outcome achieved on site and is therefore justified. This scheme maintains the objectives of the draft Master Plan.

PLANNING ASSESSMENT

The Planning Proposal has been assessed against relevant State and local planning considerations and positioned within the context of Council's desired future character for the area, as informed by the Precinct Master Plan. The Planning Proposal offers significant benefits and opportunities for the development of the site and to the local community including:

- **The Planning Proposal is consistent with State and local government strategic planning initiatives**, by providing a diversity of housing densities and typologies on the site in association with urban renewal, and facilitating a yield commensurate with the envisaged density across the site within close proximity to public transport and employment.
- **The concept design responds to the site conditions, surrounding built form context, and prevailing urban morphology**, ensuring to deliver a built scale proportionate to the site's location and to avoid unreasonable amenity impacts to surrounding sites;
- **The concept design does not result in unreasonable impacts to adjoining land uses and residents**, with analysis demonstrating that nearby dwellings will not be unreasonably shadowed; and
- **The Planning Proposal will result in a more desirable public domain** completing the 4 storey residential street wall of George Street, and removing a land use that conflicts with adjacent residential uses.

For these reasons it is recommended that the Planning Proposal is endorsed by Council to enable a gateway determination by the Department of Planning and Environment.

1 Introduction

1.1 OBJECTIVES OF PLANNING PROPOSAL

The following report has been prepared on behalf of Piety THP and seeks to amend the *Canada Bay Local Environmental Plan 2013* (CLEB) by way of a planning proposal. The planning proposal intends to achieve a site specific rezoning for the land at 25 George Street North Strathfield. The proposal seeks a rezoning of the land from IN1 General Industrial to R3 Medium Density Residential. This planning proposal is submitted to the City of Canada Bay Council for assessment and determination under Part 3 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

Rezoning the land from IN1 General Industrial to R3 Medium Density Residential is the best way of achieving this outcome. As the rezoning process progresses, a Development Application (DA) will be lodged with Council to construct a residential apartment building development on the subject site, which will increase housing supply within the Concord West area, close to public transport and amenities.

Specifically, this planning proposal seeks the following:

- Describe the subject site, the locality in which it is situated, the current zoning and to outline the limitations of the current planning controls.
- Amend the CBLEP 2013 Land Use Zoning Map to rezone the site from IN1 General Industrial to R3 Medium Density Residential.
- Amend the CBLEP 2013 Maximum Floor Space Ratio Map to set a maximum FSR of 1.6:1 under the FSR designation of 'S2', from the existing FSR limit of 1:1 under the FSR designation of 'N'.
- Amend the CBLEP 2013 Maximum Height Map to set a maximum building height of 16 metres for the western quarter and 22 metres for the eastern portion under the height designation of 'O2' and 'R2' respectively.
- Address the "Gateway" assessment criteria under Part 3 of the EP&A Act.
- Provide justifications for the amendments to the CBLEP 2013 proposed.

1.2 CONSULTATION WITH CITY OF CANADA BAY COUNCIL

The proponent has met with the City of Canada Bay Council on multiple occasions to discuss the proposed amendments to the CBLEP. The proponent has been engaged with Council throughout September 2015 – April 2016 on the concept design for the site, and has specifically met with representatives of Council's strategic planning team on the following occasions:

- 27 October 2015;
- 19 November 2015; and
- 8 February 2016.

In consultation with Council, the proponent has prepared a concept plan for the redevelopment of the subject site that aims to achieve the objectives and intent of the Draft Concord West Precinct Master Plan. This concept plan is described in Section 5 of this planning justification report.

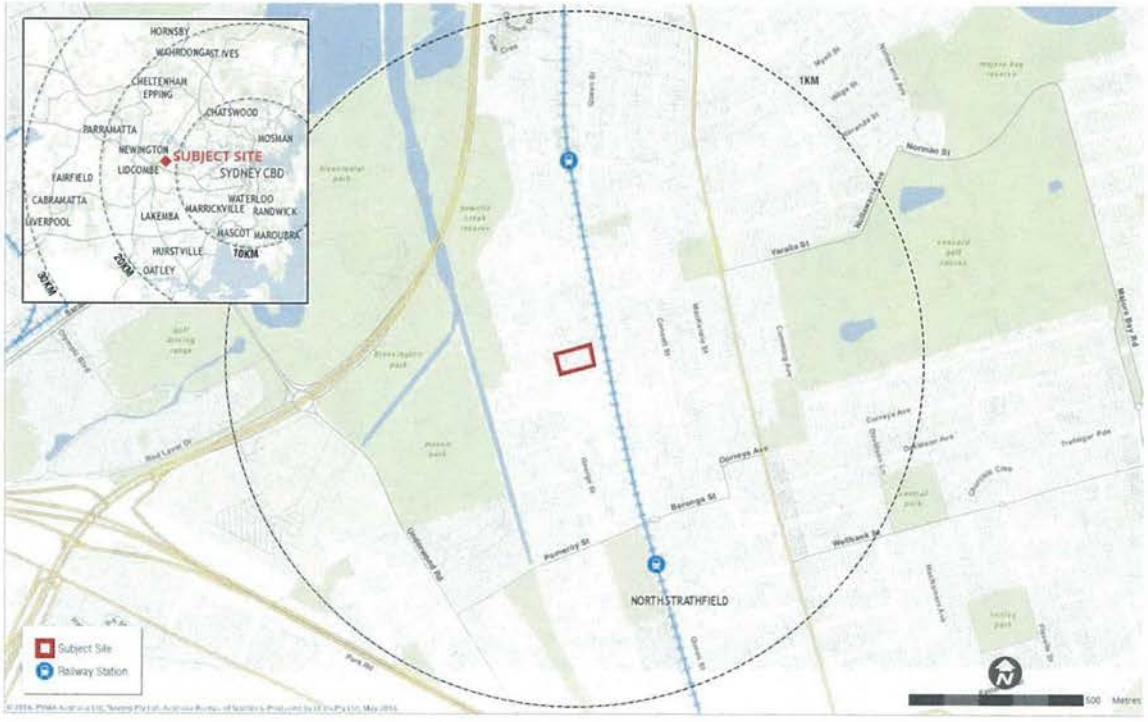
1.3 THE SITE

1.3.1 SITE DESCRIPTION

The site is located at 25 George St, North Strathfield and is legally described as SP 22302. The subject site has an area of approximately 7444m^2. Refer to Figure 1 and 2.

FIGURE 1 – SITE LOCATION

FIGURE 2 – LOCATION CONTEXT



1.4 CONTEXT

1.4.1 EXISTING DEVELOPMENT

The subject site currently contains an industrial estate development known as Homebush Industrial Estate. The estate contains a number of smaller industrial tenancies across two buildings built to the northern and southern boundaries, with at-grade car parking located between the two buildings.

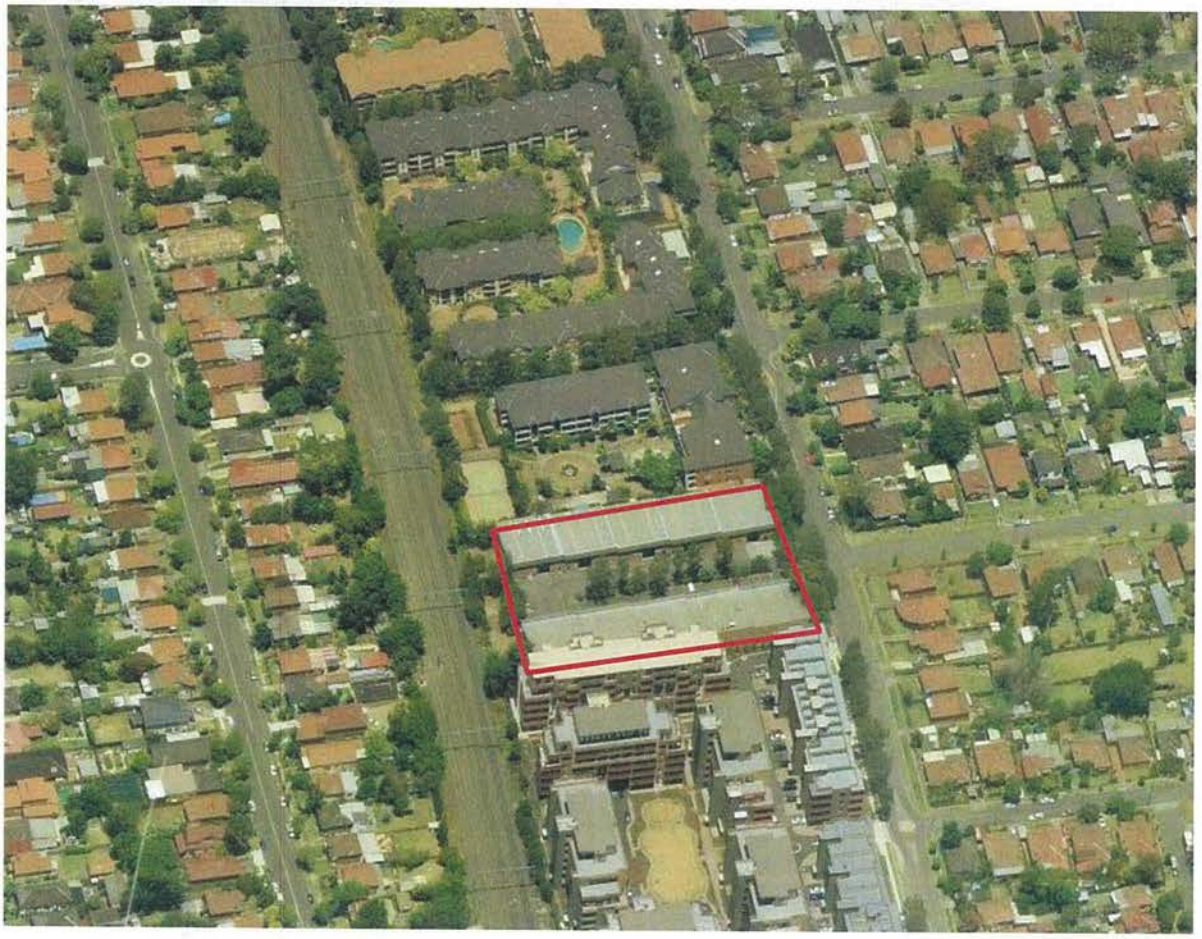
1.4.2 SURROUNDING DEVELOPMENT

The site has the following development located within proximity:

- North – A large mixed use development containing commercial and residential uses.
- South – A large residential development, with open private open space located along the southern boundary of the subject site.
- East – The Sydney Trains T1 Northern Line corridor.
- West – Low density residential developments, and Argonne St.

As shown in Figure 3 below, the site is located in amongst a corridor of medium density residential development, being the only non-residential site in this immediate vicinity.

FIGURE 3 – BIRDSEYE VIEW OF SITE



1.4.3 ACCESSIBILITY AND TRANSPORT

The site has vehicular access from George St, and is situated adjacent the intersection of Argonne St and George St. George St begins at Parramatta Rd and passes through North Strathfield heading north until Victoria Ave. Development in this portion of George St is generally residential, with a range of low-scale dwellings and medium to high density apartment building and mixed use developments.

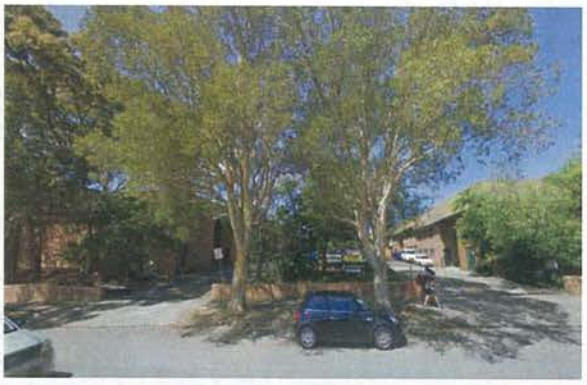
The site is well serviced by public transport, located approximately 700m from Concord West Railway Station. Therefore the subject site has significant potential for transit orientated development (TOD).

FIGURE 4 – SITE PHOTOS

PICTURE 1 – ARGONNE ST LOOKING EAST

PICTURE 2 – GEORGE ST LOOKING SOUTH EAST

PICTURE 3 – GEORGE ST LOOKING NORTH EAST



PICTURE 4 – THE SITE FROM GEORGE ST

2 Explanation of Provisions

2.1 PLANNING PROPOSAL

A concept design for the subject site including preliminary plans has been prepared by Anthony Vavayis and Associates (AVA) based on schemes prepared for discussions with Council, and is provided at **Appendix A**. The concept design would form the basis for a future site specific development control plan and Development Application (DA) following the Planning Proposal process. The key features of the concept design include:

- A maximum height limit of 22 metres (6 storeys) towards the rear of the site.
- A 16 metre (4 storeys) height limit at the frontage with George Street.
- Central communal open space, adjacent to the communal open space of 23 George Street.
- Basement car parking, consistent with Council's parking provisions.

AVA architects have undertaken detailed design exercises to understand the development potential on the site, whilst protecting the amenity of surrounding properties, and providing an attractive and efficient communal open space across the site. Most importantly, the concept design demonstrates that a built form can be achieved which is compliant with the requirements of *State Environmental Planning Policy 65 – Design Quality of Residential Apartment Development* (SEPP 65) and the NSW *Apartment Design Guide* (ADG). This includes an analysis of shadow, solar access and natural ventilation. A future DA would include further detailed SEPP 65 and ADG analysis.

A Landscape Master Plan has been prepared by Urbis in consultation with AVA to demonstrate the intended outcomes for communal open space on site. This Landscape Master Plan is found in the concept design drawings package at **Appendix A**.

The following images illustrate the conceptual design of the proposal which are found at **Appendix A.**

FIGURE 5 – GEORGE STREET CONCEPT MONTAGE

FIGURE 6 – LANDSCAPE MASTER PLAN

2.2 CANADA BAY LOCAL ENVIRONMENTAL PLAN 2008

The primary environmental planning instrument which affects the proposed development of the site is the CBLEP 2013. The subject site is currently zoned IN1 General Industrial under the plan, which prohibits any residential or shop top housing developments.

This planning proposal seeks an amendment to the CBLEP 2013 to allow for a site specific rezoning for 25 George St, North Strathfield to achieve the following:

- Change the zoning of the site from IN1 General Industrial to R3 Medium Density Residential under the CBLEP 2013 via a Land Zoning Map Amendment (refer to Appendix B).
- Change the Floor Space Ratio control under the CBLEP 2013 from 1:1 to 1.6:1 via a Floor Space Ratio Map Amendment (refer to Appendix B).
- Change the Height of Building control under the CBLEP 2013 from 12m to part 16m and part 22m via a Height of Buildings Map Amendment (refer to Appendix B).

The CBLEP 2013 states the following in relation to the R3 Medium Density Residential zone:

Zone R3 Medium Density Residential

1 Objectives of zone

• To provide for the housing needs of the community within a medium density residential environment.

• To provide a variety of housing types within a medium density residential environment.

• To enable other land uses that provide facilities or services to meet the day to day needs of residents.

2 Permitted without consent

Environmental protection works

3 Permitted with consent

Attached dwellings; Bed and breakfast accommodation; Boarding houses; Boat sheds; Building identification signs; Business identification signs; Child care centres; Community facilities; Environmental facilities; Exhibition homes; Group homes; Jetties; Multi dwelling housing; Neighbourhood shops; Places of public worship; Public administration buildings; Recreation areas; Residential accommodation; Respite day care centres; Roads; Schools; Seniors housing; Water recycling facilities

4 Prohibited

Rural workers' dwellings; Shop top housing; Any other development not specified in item 2 or 3

2.3 OBJECTIVES AND INTENDED OUTCOMES

The objective of the planning justification report is to enable the development of the subject site for a residential development in accordance with Council's desired land uses for the site, informed by the Draft Concord West Precinct Master Plan released May 2014.

The Planning Proposal seeks to facilitate a built form that is consistent with this Precinct Master Plan which includes:

- a rezoning of the land from IN1 General Industrial to R3 Medium Density Residential;
- a maximum FSR of 1.6:1 under the FSR designation of 'S2'; and
- a maximum building height of 16 metres for the western quarter and 22 metres for the eastern portion under the height designation of 'O2' and 'R2' respectively.

The outcome of this submission would result in the orderly development of a site that provides a built form and height that is appropriate for the site and the wider locality as informed by Council's own strategic analysis, demonstrated in the Draft Concord West Precinct Master Plan.

The proponent seeks Council support for the adoption and forwarding of a Planning Proposal to the NSW Department of Planning and Infrastructure in accordance with Part 3 of the *Environmental Planning and Assessment Act 1979*.

2.4 DEVELOPMENT CONTROL PLAN

It is understood that the Draft Concord West Precinct Master Plan has provided an initial analysis of built form for the site. Council's website currently indicates that this will form the basis of further study and analysis to inform appropriate development controls for the sites subject to this Master Plan.

In preparation of this Planning Proposal Piety THP commissioned Urbis and AVA architects to undertake detailed site analysis which has informed the concept design accompanying this report, As demonstrated in Section 3 of this report, further analysis has provided a better urban outcome for the subject site.

Should Council be of a mind to progress a site specific Development Control Plan (DCP), the detailed studies undertaken by Urbis and AVA have merit to provide the framework for site specific DCP provisions and it is requested that the opportunity is afforded to Piety THP to take part in this process.

3 Justification

This section responds to the requirements outlined in Part 3 of the then Department of Planning and Infrastructure's publication '*A Guide to Preparing Planning Proposals*'.

3.1 SECTION A – THE NEED FOR A PLANNING PROPOSAL

3.1.1 IS THE PLANNING PROPOSAL A RESULT OF ANY STRATEGIC STUDY OR REPORT

Yes

A report was submitted to Council and subsequently considered on 2 November 2010 at Council's ordinary meeting. The report was a draft comprehensive Canada Bay Local Environmental Plan (draft LEP). This report was to be considered by Council for endorsement, and to then be submitted to the DoPI requesting a Section 65 Certificate to be issued to allow the draft plan to be publicly exhibited. The report promoted focussing development around and within centres where services and transport are accessible.

The report identified a number of large sites which had been applied to be rezoned, including changes to the existing height and floor space ratio controls as follows:

The Industrial zone along Parramatta Road where the recommendation is to rezone to B6 Enterprise Corridor with the existing height and floor space ratio (FSR) to remain until a comprehensive 'Concept Plan', acceptable to Council is endorsed. This can also be undertaken as a Planning Proposal in the future.

> ***McDonald College, North Strathfield*** *where the recommendation is to rezone the site to B4 Mixed Use to expand the range of uses and increased height and FSR.*
>
> ***Bakehouse Quarter*** *where the recommendation is to permit an increase in height and FSR on the section of the site which is not subject to the Part 3A application and to apply a heritage listing.*
>
> ***Canada Bay Club*** *where the recommendation is to permit a change of location of the club building and an increase in the height and FSR.*
>
> ***George Street, Concord Industrial Sites*** *where the recommendation is to rezone the sites on the western side of George Street from industrial to medium density residential.*
>
> ***Other rezonings*** *that are considered to have merit have been included in the draft Rezoning Discussion Paper that was discussed at the October Councillor workshop.*

The report recommended that the subject site be rezoned for a residential use. The report recommended that Council resolve to proceed with the making of the draft LEP and make application for a Section 65 Certificate with the DoPI.

Council resolved the following at the meeting on 2 November 2010:

> ***ITEM-5 DRAFT COMPREHENSIVE LOCAL ENVIRONMENTAL PLAN***
>
> ***M- 2572 RESOLVED*** *(Crs Kenzler/O'Hara)*
>
> *1. THAT Council resolves to proceed with the making of the draft Canada Bay Comprehensive Local Environmental Plan and associated maps, with the exception of the proposed rezoning of the IN1 General Industrial land in Bibby Street , Chiswick.*
>
> *2. THAT Council advise the Department of Planning of its decision in accordance with the provisions of the Environmental Planning and Assessment Act 1979.*

3. THAT Council make application to the Department of Planning for a Certificate to be issued to enable public notification of the draft Canada Bay Comprehensive Local Environmental Plan, maps and associated documentation.

4. THAT upon advice received from the Department of Planning the draft Plan and associated maps be publicly exhibited in accordance with the Environmental Planning and Assessment Act, 1979 for a minimum period of 6 weeks.

5. THAT following the public exhibition period, a report be submitted to Council regarding any submissions and recommending further actions that should be taken.

Following this resolution, the draft LEP was sent to the DoPI and in early 2012, Council was advised to undertake a "precinct approach" to the industrial lands located at Concord West.

The report concluded that the overall Concord West site in terms of its capability to accommodate industrial purposes is constrained, and that the types of uses that it would be expected to attract and that seek a non-city fringe location have tended to gravitate toward other industrial locations. In this sense, the report concludes that the indusial areas in which the site is located is not an industrial precinct, but rather a residential precinct with a legacy of industrial sites, which is hampered by its location and isolation from other industrial locations.

3.1.1.1 CONCORD WEST PRECINCT MASTER PLAN

A master plan was prepared by JBA on behalf of Canada Bay Council. The Master Plan relates to land on the western side of the Northern Rail Line at Concord West. The Master Plan focuses on the land within Concord West currently zoned IN1 General Industrial, with this land earmarked for residential redevelopment. The study has the following objectives:

- Deliver high quality urban design and appropriate built form controls that are considerate of surrounding built form.
- Mitigate impacts in relation to the use of private motor vehicles and promote the use of public transport, walking and cycling.
- Identify opportunities for public domain improvements and connections.
- Balance city-wide and regional goals with the existing community and its context.
- Provide a coordinated planning approach to the redevelopment of the area.
- Provide a sound methodology and a thorough, evidence based justification for planning, urban design and traffic recommendations provided.
- Undertake the study with Council, community and stakeholder engagement.

The subject site is specifically recognised within the Master Plan for high density residential development, identified as Site 7. The Master Plan envisages a combination of four, five and six storey buildings as part of the overall residential development of the site. The height of buildings increases through the site away from George St, providing an appropriate interface with the existing residential dwellings west of the site. The overall density recommended for the site is an FSR of 1.6:1.

Extracts of the Master Plan are provided within Figures 7 - 9

FIGURE 7 – DRAFT CONCORD WEST PRECINCT MASTER PLAN

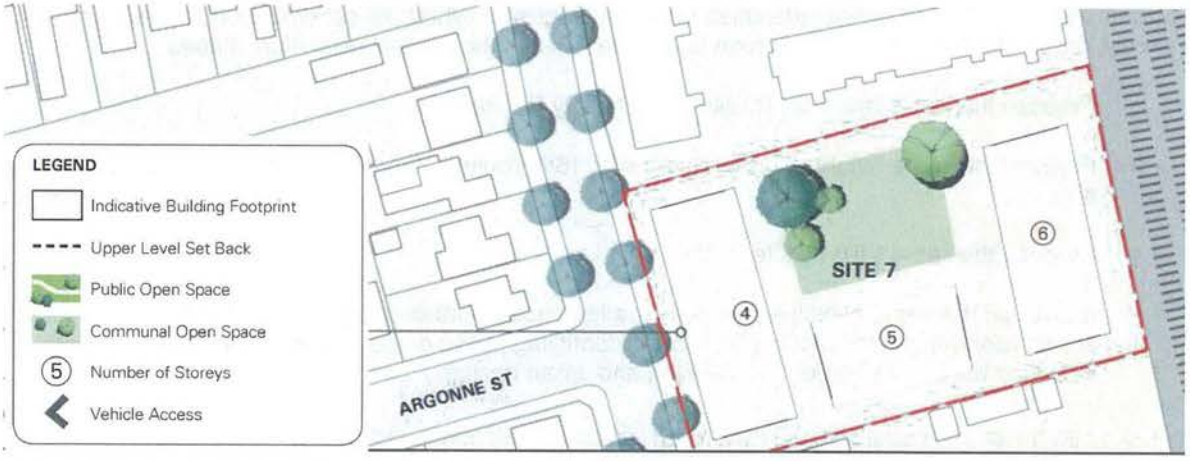
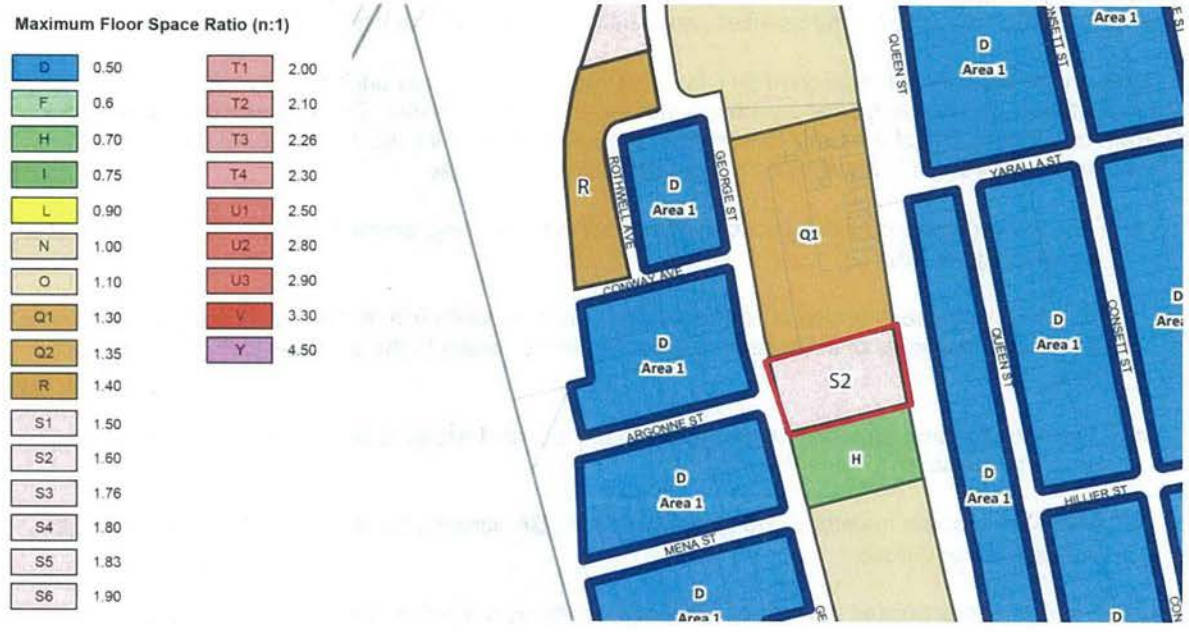


FIGURE 8 – DRAFT CONCORD WEST PRECINCT MASTER PLAN RECOMMENDED BUILDING HEIGHT

FIGURE 9 – DRAFT CONCORD WEST PRECINCT MASTER PLAN RECOMMENDED FSR



This planning proposal has been directly informed by the Master Plan, and responds directly to the recommended height and density identified for the subject site. Whilst the scheme found in the attached concept design departs from the built form layout identified in the Draft Master Plan, it does:

- Propose the same land use; R3 Medium Density Residential.
- Propose the same height of buildings on site; 16m fronting George St, 22m for the remainder of site,
- Propose the same FSR on site; 1.6:1,
- Deliver on the same objectives; to deliver a high quality urban design and built form controls that are considerate of surrounding built form, identifying public domain improvements and provide evidence based justification for planning and urban design.

3.1.2 IS THE PLANNING PROPOSAL THE BEST MEANS OF ACHIEVING THE OBJECTIVES OR INTENDED OUTCOMES, OR IS THERE A BETTER WAY?

Yes

It is understood that a planning proposal as a site specific rezoning is the most appropriate and will be the most effective means of achieving the intended outcomes for the site. This avenue of achieving the objectives for the site will provide certainty, allowing the vision within the Master Plan for the site to be realised. The current use and associated planning controls for the site are deemed to be inappropriate, this being reflected within this planning proposal and the Master Plan.

3.1.3 IS THERE A NET COMMUNITY BENEFIT

Yes

The planning proposal will facilitate the overall vision for the Concord West Precinct as developed by the studies and master plan commissioned by Council. The Draft Concord West Master Plan locates and describes this vision, as well as the manner in which the Draft Master Plan was formed. Community consultation and stakeholder engagement were both major elements that helped to guide the Master Plan, with the needs and well-being of the community shaping the proposed controls and intended outcomes.

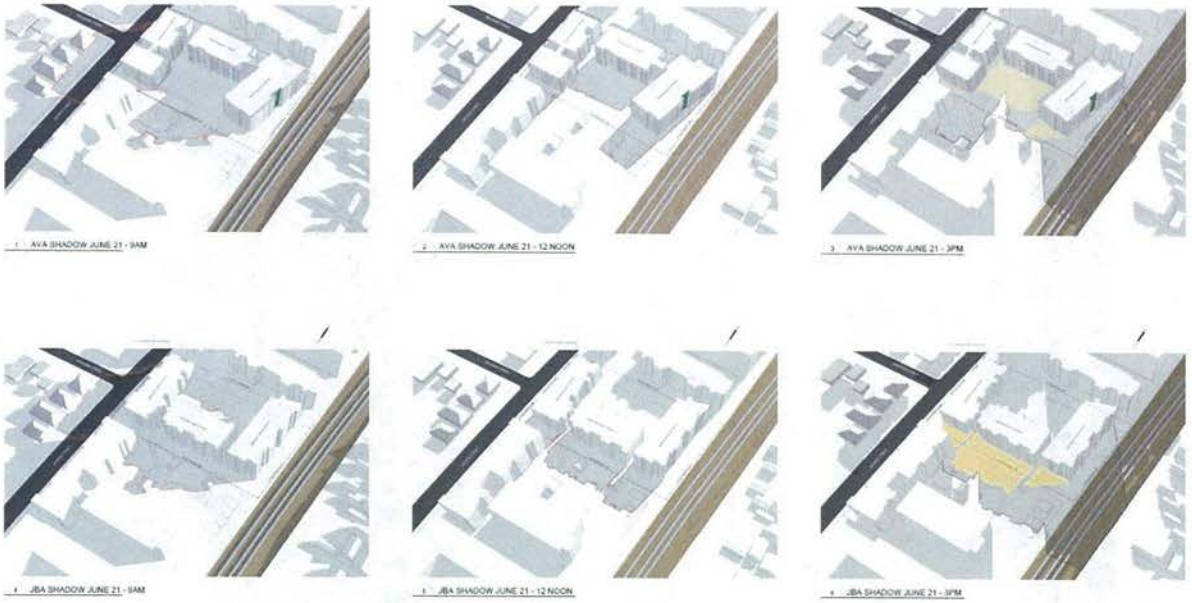
The planning proposal will facilitate development that solidifies the precinct as a revitalised residential area, with strong links to jobs and services, and sustainable and efficient transport links.

Building on the studies commissioned by Council, Urbis and AVA have undertaken further detailed analysis of the subject site, guided by the Council vision for the Precinct. This analysis has produced a different result from that of the draft Master Plan prepared by JBA. Whilst this outcome does differ from the Master Plan layout, it is considered to be a better result because:

- The AVA scheme provides reduced overshadowing for neighbouring residences, improving solar access (Figure 10),
- The AVA scheme provides an improved residential amenity with better visual outlook for existing and future residents of both the neighbouring development to the south as well as the subject site,
- The AVA scheme provides an openness to the site and allows a visual connection with the open space to the south (Figure 11), and
- The AVA scheme maintains the objective of the JBA scheme by reinforcing the 4 storey street wall to George Street.

Figure 10 below demonstrates the improved local amenity as a result of the AVA concept design.

FIGURE 10 –EXTRACT OF SHADOW COMPARISION OF SCHEMES



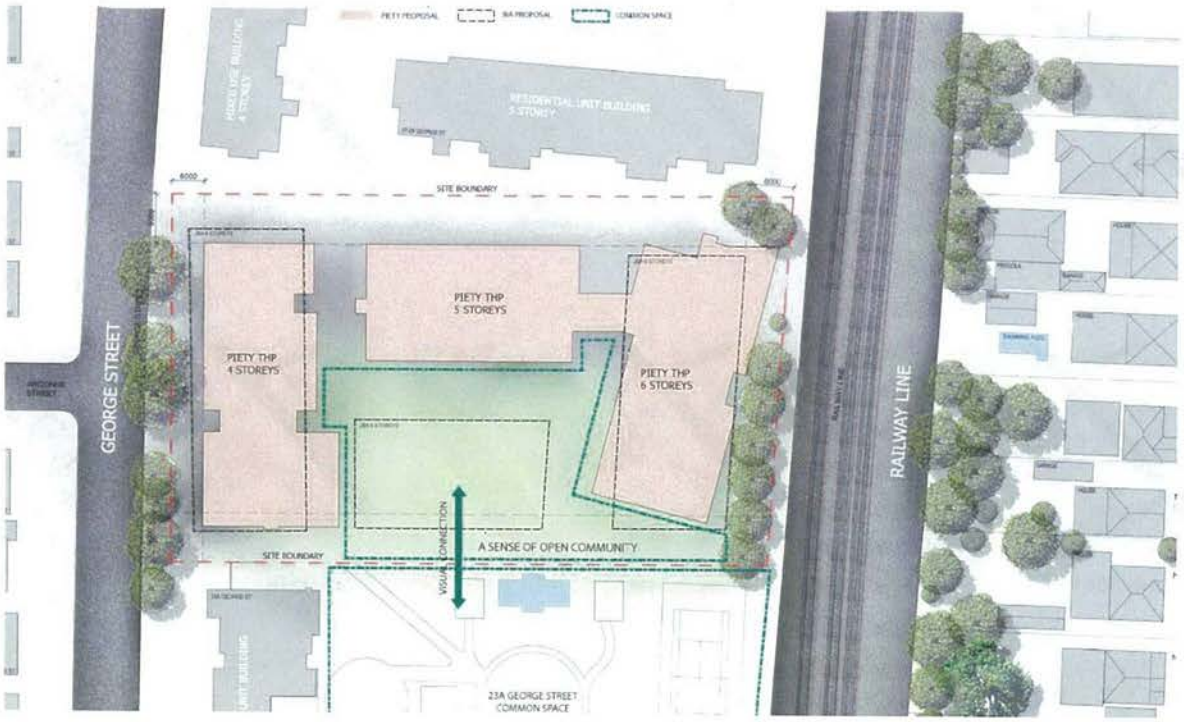
3.1.3.1 URBAN DESIGN

Attached as part of this planning proposal (**Appendix A**) is an architectural set illustrating the proposed urban design outcome envisaged for the site. This early vision for the site will be part of a formal development application following the gazettal of this planning proposal.

The architectural set demonstrates the kind of built form facilitated by this planning proposal. It should be noted that the building layout and orientation is the sole area where this planning proposal deviates from the Master Plan prepared for the West Concord Precinct. Within the Master Plan, an indicative building footprint is provided for the subject site, with three buildings surrounding a centralised open green space located on the northern boundary.

The architectural set instead proposes this open green space area to be located on the southern boundary. This will define a strong sense of open community with the neighbouring residential development to the south. The common space of 23A George St will be visually linked with the future open space of the subject site by being located adjacent, establishing a visual connection. This orientation will provide a positive outlook for residents within both the existing development of 23A George St looking north, and the residents within the future development on the subject site looking south.

FIGURE 11 – EXTRACT OF SCHEME COMPARISONS



3.1.3.2 TRANSIT ORIENTED DEVELOPMENT (TOD)

The subject site has a favourable location in order to enable public transport use, and avoid a dependence on private vehicle use. Concord West Railway Station is a 700m walk from the subject site, connecting the site to nearby centres such as Rhodes to the north and Strathfield to the south. Furthermore, this proximity also links the site to the major centres of Parramatta and Sydney's CBD via the wider established train network. The site is also located within proximity to considerable open space, recreational facilities and parkland. Access to the Sydney Olympic Park precinct is provided by a walking and cycling path over Powells Creek and under Homebush Bay Drive.

The proposal is consistent with the objectives of the Precinct Master Plan. The Precinct Master Plan was informed by a Council commissioned Traffic Study, which the concept design adheres to. This Traffic Study is found at **Appendix D.**

3.1.3.3 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

The future development enabled through this planning proposal will allow for development that embraces the principles of CPTED. Building engagement and passive surveillance of George St and Argonne St will be possible as part of any future development on the site, which will improve upon the existing situation involving the current industrial use.

Overall, future residential development on site will help to deliver an overall community benefit through improving safety in and around the subject site. This applies to residents living within the new development, and those travelling just outside of it to and from Powells Creek Reserve and the railway station.

3.1.3.4 SYDNEY'S URBAN FOOTPRINT

The development of the site for high density residential housing will help to consolidate existing land supplies within the precinct. The current low density industrial use has been identified as undesirable for the wider precinct, failing to maximise the size and location of the site. Therefore the provision of additional housing supply will be in the form of urban renewal, rather than fringe development on the outskirts of existing developments further from strategic centres. This aligns with the directions and goals of the metropolitan plan of ensuring higher density living occurs strategically in locations suitable for such development.

3.2 SECTION B – RELATIONSHIP TO STRATEGIC PLANNING FRAMEWORK

3.2.1 IS THE PLANNING PROPOSAL CONSISTENT WITH THE OBJECTIVES AND ACTIONS CONTAINED WITHIN THE APPLICABLE REGIONAL OR SUB-REGIONAL STRATEGY (INCLUDING THE SYDNEY METROPOLITAN STRATEGY AND EXHIBITED DRAFT STRATEGIES)?

3.2.1.1 A PLAN FOR GROWING SYDNEY 2014

The relevant metropolitan strategy applying to the site is the Sydney Metropolitan Plan. A Plan for Growing Sydney was released by the Department of Planning and Environment in December 2014, and is the NSW Government's plan for the future of the Sydney Metropolitan Area over the next 20 years. The Plan provides key directions and actions to guide Sydney's productivity, environmental management, and liveability; including the delivery of housing, employment, infrastructure and open space. This is achieved through the following goals and principles:

Four goals that Sydney will be:

- Goal 1: A competitive economy with world-class services and transport;
- Goal 2: A city of housing choice with homes that meet our needs and lifestyles;
- Goal 3: A great place to live with communities that are strong, healthy and well connected; and
- Goal 4: A sustainable and resilient city that protects the natural environment and has a balanced approach to the use of land and resources.

The planning principles that will guide how Sydney grows:

- Principle 1: increasing housing choice around all centres through urban renewal in established areas
- Principle 2: stronger economic development in strategic centres and transport gateways
- Principle 3: connecting centres with a networked transport system

The subject site is located within both the Global Economic Corridor, and the Urban Renewal Corridor following the railway line that runs along the eastern boundary of the site. The site is also located within proximity to Sydney Olympic Park, a locality identified as a strategic centre within the strategic plan.

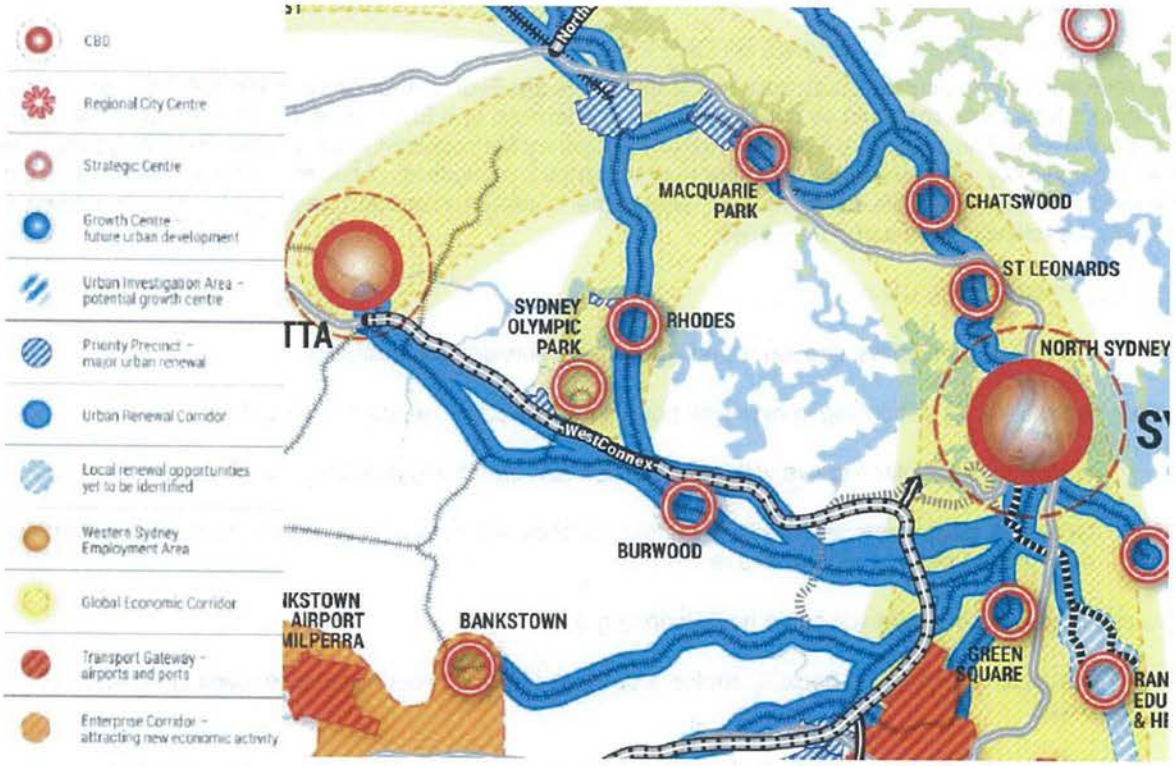
The proposed rezoning, increase in height and increase in FSR as part of this planning proposal aligns well with the strategic direction and outcomes sought by the metropolitan plan. The subject site is located closely to the Concord West Railway Station, with a walking distance of approximately 700m, qualifying the site for transport oriented development (TOD). The site's proximity to the strategic centres of Sydney Olympic Park and Rhodes will allow new homes to be strategically connected to these employment centres. The railway connection located nearby the site will similarly provide connection between dwellings and the two major employment centres of Parramatta CBD and Sydney CBD.

Overall the planning proposal is aligned with the objectives, directions and guidelines within the metropolitan strategy:

- The planning proposal will contribute to the increase of housing supply, diversity and affordability within the greater metropolitan area. The planning proposal explicitly addresses principle 1 through the provision of housing within an identified urban renewal corridor within proximity to strategic centres.
- The planning proposal will assist in achieving goal 2 of the strategy through the inception of planning controls to facilitate the supply and diversification of housing.

- The planning proposal seeks to establish planning controls that will facilitate housing supply that will revitalise the existing suburb of West Concord, and facilitate a healthy built environment. The subject site's proximity to public transport, recreational facilities and green space promote healthy and sustainable living. Overall then the planning proposal contributes to achieving Goal 3 of the metropolitan strategy, contributing to a revitalised community that is strong, healthy and well connected.

FIGURE 12 – A PLAN FOR GROWING SYDNEY



3.2.2 IS THE PLANNING PROPOSAL CONSISTENT WITH THE LOCAL COUNCIL'S COMMUNITY STRATEGIC PLAN, OR OTHER LOCAL STRATEGIC PLANS?

The Local Planning Strategy (LPS) is the principal document for communicating the future land use planning of Canada Bay. The aim of the strategy is to provide long term direction for the planning of Canada Bay, to assist future decision making in response to population growth and change.

3.2.2.1 CANADA BAY LOCAL PLANNING STRATEGY PART 3 – HOUSING

Chapter 3 of the LPS deals with housing, aiming to ensure that the key actions of the Metropolitan Strategy for Sydney are adequately considered, including:

- The encouragement of housing choice in the City of Canada Bay, including an adequate supply of housing for families, people with disabilities, affordability and the ageing population;
- The identification of how the City of Canada Bay dwelling target contained within the Inner West sub-regional strategy will be achieved.

3.2.2.2 FUTURE HOUSING DEMAND

The future demand for housing in the Canada Bay area is expected to significantly grow in the coming 25 years. Statistics sourced from the Transport Data Centre (TDC) forecast a likely population growth of 29% between 2006 and 2031, this equating to an increase in 20,076 people. SGS estimates that this will require approximately 9,700 additional dwellings in order to accommodate the forecasted population growth. In regards to dwelling types, demand for housing in Canada Bay is being driven by social trends that have led to smaller family types and consequently, a need for smaller dwellings.

3.2.2.3 FUTURE HOUSING SUPPLY

The strategy advices and predicts the location of future housing supply for Canada Bay, with the following stated in regards to location:

> *"Most new housing supply is expected to be located within walking distance of transit nodes (6,467 dwellings or 64% of supply from 2004 onwards) – this primarily refers to the supply of new dwellings anticipated at Rhodes and Strathfield Triangle... The majority of future dwelling supply is expected to be multi-unit development and is expected to be constructed in the next 5 years."*

Although the subject site is not within Rhodes or the Strathfield Triangle is located within walking distance of Concord West Train Station. This remains consistent then with the strategic guidelines outlined within the strategy for Canada Bay in supplying housing to meet demand within walking distance of transit nodes.

The strategy also states that large ex-industrial sites will be the primary means for achieving additional housing supply. Industrial sites on George St North Strathfield are identified as having the potential to "make a significant contribution to future housing supply in the LGA". Overall the subject site presents itself as having great potential for achieving the dwelling targets identified in the Canada Bay Local Planning Strategy in a location that is aligned with the strategic directions present in the strategy.

3.2.2.4 OBJECTIVES AND ACTIONS

The following objective and action listed within the strategy are relevant to this planning proposal in regards to housing supply:

> ***Objective H5 - Increase Residential Densities in Centres***
>
> *Canada Bay's existing local centres that are served by good public transport and offer a range of retail and other services are a valuable attribute of the LGA. Maintaining the viability and vitality of these centres should be part of a strategy to ensure better liveability and sustainability into the future. Support and revitalisation of these local centres can be assisted by zoning for residential intensification.*
>
> *Maximum allowable densities in appropriate village and neighbourhood centres should be increased to stimulate growth required to ensure vibrant and viable mixed use centres that are well serviced by public transport.*
>
> ***Action H12 - Increase residential densities in, and in the immediate vicinity of, the existing centres of Drummoyne, Five Dock, Concord, Concord West and North Strathfield.***
>
> *These existing centres all include good services and access to transport access and yet they contain a significant proportion of low density housing. It is recognised that the low density and village feel in Canada Bay is valued by residents and businesses alike, however a balance must be struck between retaining the existing character, and ensuring densities support the public transport patronage. Suitable density increases should be determined consistent with village feel and transport accessibility, and desire to promote housing choice and affordability. This will require an adjustment to local zoning controls, shop-top provisions (to encourage residential), parking controls, and pedestrian and cycling facilities. Design guidelines should be prepared to protect amenity. Particular emphasis should be placed on achieving higher densities at close range, such as with 200 metres of existing retail areas and centres serviced by public transport.*

Due to the site's location within the existing centre Concord West and proximity to the Concord West Train Station, it is considered that the planning proposal is aligned with objective H5 and Action H12. The site is also located next to a large mixed use development containing ground floor commercial and retail uses. This assists in solidifying the village feel of the area, providing services to the additional housing facilitated by the planning proposal.

3.2.3 IS THE PLANNING PROPOSAL CONSISTENT WITH APPLICABLE STATE ENVIRONMENTAL PLANNING POLICIES?

No existing or draft State Environmental Planning Policies (SEPPS) are restrictive or will prohibit the planning proposal subject to this report. Assessment has been completed against the relevant SEPP's, with a full assessment table found at **Appendix F**.

3.2.3.1 SEPP (INFRASTRUCTURE) 2007

The amendment to the CBLEP 2013 to rezone the subject site to R3 Medium Density Residential will result consideration of the following clauses of the ISEPP:

- Clause 85 – development immediately adjacent to rail corridors;
- Clause 86 – excavation in, above or adjacent to rail corridors, and
- Clause 87 – impact of rail noise or vibration on non-rail development.

Council can suitably address the considerations of each of these matters at the Development Application stage in consultation with the appropriate authorities.

3.2.3.2 SEPP 55 (REMEDIATION OF LAND)

Clause 6 of SEPP 55 requires in the event of a change of land use, the planning authority must consider whether the land is contaminated, if the land can be suitably remediated for the proposed use and that the authority is satisfied that this remediation is sufficient for the proposed uses on the land.

A Preliminary Site Investigation has been undertaken and concludes that the site can be made suitable for the proposed residential uses, this report is found at **Appendix E**. As the site has been used for industrial purposes, a Remediation Action Plan will be required as part of a future development application process.

3.2.4 IS THE PLANNING PROPOSAL CONSISTENT WITH APPLICABLE MINISTERIAL DIRECTIONS (S117 DIRECTIONS)?

The planning proposal has been assessed against the relevant Ministerial Directions under Section 117 of the EP&A Act and is consistent, as seen below. A full assessment table is found at **Appendix E**.

3.2.4.1 BUSINESS AND INDUSTRIAL ZONES

This direction applies when a relevant planning authority prepares a planning proposal that will affect land within an existing or proposed business or industrial zone and states:

> *This direction applies when a relevant planning authority prepares a planning proposal that will affect land within an existing or proposed business or industrial zone (including the alteration of any existing business or industrial zone boundary).*

The Direction states that:

> *A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Director-General of the Department of Planning that the provisions of the planning proposal that are inconsistent are justified.*

The planning proposal is inconsistent with this Section 117 direction, however the inconsistency is justified in accordance with Clause (5)(b).

> *(b) justified by a study (prepared in support of the planning proposal) which gives consideration to the objective of this direction*

The draft Concord West Precinct Master Plan is focused on land currently zoned IN1, General Industrial, which has been identified for redevelopment to residential uses by Council. The draft Master Plan investigates the subject site specifically, considering the site in the context of the broader Concord West Precinct.

The Master Plan suggests a high density residential zoning for the site, with a collection of four, five and six storey apartment buildings and a total FSR of 1.6:1 applying to the subject site. The planning proposal aligns with the master plan in respect to the suggested planning controls and land use allocations.

3.2.4.2 ENVIRONMENTAL PROTECTION ZONES

This direction applies whenever a relevant planning authority prepares a planning proposal.

The subject site is not within an environmental protection zone, nor is it identified for environmental protection purposes within the LEP. Further consideration of environmental protection will be addressed within the DA to develop the subject site.

3.2.4.3 HERITAGE CONSERVATION

This direction applies whenever a relevant planning authority prepares a planning proposal.

No significant heritage items are located within the subject site, nor is the site within a heritage conservation area. Nonetheless, there is one house within proximity of the subject site that is a locally significant heritage item. This dwelling is located on the other side of the railway line on Queen St. It is considered that the planning proposal will not affect the heritage significance of the dwelling as the proposed use of the site is aligned and consistent with both the draft master plan and the existing uses neighbouring the site to the north and to the south.

3.2.4.4 RESIDENTIAL ZONES

This direction applies whenever a relevant planning authority prepares a planning proposal that will affect land within any zone in which significant residential development is permitted or proposed to be permitted. The planning proposal is consistent with this direction for the following reasons:

- It will facilitate the provision of a variety and choice of housing types for the greater Concord West precinct, helping to contribute to the future housing needs of the area.
- Utilise the existing infrastructure and services accessible from the site.
- Minimise the impact of residential development on the environmental and resource lands, instead encouraging the redevelopment of an existing site that has become obsolete in its current form.
- The proposal adheres to the principles of transport oriented development, minimising urban sprawl and development on the urban fringe.
- The planning proposal will facilitate residential development that has been informed by a thorough and evidence based master plan prepared for the wider Concord West Precinct.
- The planning proposal does not reduce or limit the permissible residential density of land on or around the site.

3.2.4.5 INTEGRATING LAND USE AND TRANSPORT

This direction applies when a relevant planning authority prepares a planning proposal that will create, alter or remove a zone or a provision relating to urban land, including land zoned for residential, business, industrial, village or tourist purposes. The planning proposal is consistent with this direction for the following reasons:

- The planning proposal will promote sustainable transport. The site has great access to public transport and the proximity of the site to strategic centres will help to encourage walking and cycling.
- The transportation choice available with proximity to the site will help to reduce car dependence.
- The planning proposal will help to support the efficient and viable operation of public transport services.

3.2.4.6 ACID SULPHATE SOILS

This direction applies to all relevant planning authorities that are responsible for land having a probability of containing acid sulphate soils, as shown on Acid Sulphate Soils Planning Maps held by the Department of Planning. The objective of this direction is to avoid significant adverse environmental impacts from the use of land that has a probability of containing acid sulphate soils.

The relevant Acid Sulfate Map located in the Canada Bay LEP identifies the site as being located on Class 5 land.

A Preliminary Site Investigation has been undertaken and concludes that the site is suitable for the proposed residential uses, this report is found at **Appendix E**. It is considered acceptable that further assessment can be dealt with at a future DA stage for the subject site, with the inclusion of a Soil Management Plan accompanying such an application.

3.2.4.7 SITE SPECIFIC PROVISIONS

The objective of this direction is to discourage unnecessarily restrictive site specific planning controls.

This proposal is consistent with this direction as it only proposes standards and requirements already contained within the CBLEP:

- The proposed zoning and its permissible uses,
- The proposed maximum height of buildings standards, and
- The proposed site floor space ratio standard, are all consistent with existing provisions of the CBLEP.

3.2.4.8 7.1 IMPLEMENTATION OF A PLAN FOR GROWING SYDNEY

The objective of this direction is to give legal effect to the planning principles; directions; and priorities for subregions, strategic centres and transport gateways contained in *A Plan for Growing Sydney*. The direction applies to collection of LGA's within the Sydney metropolitan area, including Canada Bay.

It is considered that the planning proposal is consistent with this direction as it will promote the principles found in the plan and facilitate the outcomes envisaged as outlined in **Section 3.2.1**.

3.3 SECTION C – ENVIRONMENTAL, SOCIAL AND ECONOMIC IMPACT

3.3.1 IS THERE ANY LIKELIHOOD THAT CRITICAL HABITAT OR THREATENED SPECIES POPULATIONS OR ECOLOGICAL COMMUNITIES, OR THEIR HABITATS, WILL BE ADVERSELY AFFECTED AS A RESULT OF THE PROPOSAL?

There is not critical habitat threatened species, populations or ecological communities, or their habitats present on the subject site. The site was cleared of the majority of vegetation and used as an industrial business park for many years. Therefore there is no need for a Local Environmental Study.

3.3.2 IS THERE ANY OTHER LIKELY ENVIRONMETAL EFFECTS AS A RESULT OF THE PLANNING PROPOSAL AND HOW ARE THEY PROPOSED TO BE MANAGED?

No other likely environmental effects are expected as a result of the planning proposal.

The subject site is not affected by any land use planning constraints or on land subject to natural hazard. Except for presence of acid sulphate soils (addressed in **Section 3.2.4.6**), the land is free from environmental constraints or natural hazards.

3.3.3 HOW HAS THE PLANNING PROPOSAL ADEQUATELY ADDRESSED ANY SOCIAL AND ECONOMIC EFFECTS?

These considerations have been discussed within this planning proposal report and are addressed in detail in the Socio Economic Impact Study undertaken on behalf of Council by Hill PDA in June 2013.

3.3.4 WHAT ARE THE VIEWS OF STATE AND COMMONWEALTH PUBLIC AUTHORITIES CONSULTED IN ACCORDANCE WITH THE GATEWAY DETERMINATION?

State and Commonwealth public authorities will be consulted following the outcomes of the gateway determination. Consultation can be carried out in accordance with the EP&A Act.

4 Conclusion

This Planning Proposal has outlined the proposed concept for the redevelopment of the site. This concept design has been informed by the strategic study commissioned by Council; the Draft Concord West Precinct Master Plan. The objective of this report is to facilitate an amendment to the zoning, height and FSR controls that apply to the site under the *Canada Bay Local Environmental Plan 2013*. The purpose of this Report has been to:

- Present the proposed concept design for the redevelopment of the subject site;
- Explain the intended effect of the proposed CBLEP amendment to support the concept design;
- Explain the proposed amendments to the CBLEP requested; and
- Provide a planning and urban design justification for the proposed LEP amendments.

We therefore request that Council progress the proposal to Gateway Determination under Section 56 of the *Environmental Planning and Assessment Act 1979*.

Disclaimer

This report is dated June 2016 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd's (**Urbis**) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Piety THP (**Instructing Party**) for the purpose of Planning Proposal (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

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All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

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This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

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Appendix A Concept Design Drawings

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CLIENT
PIETY THP

PROJECT TITLE
25 GEORGE STREET
NORTH STRATHFIELD

DRAWING TITLE
COVER PAGE

DRAWING NUMBER
P0001
PROJECT 19023
DATE 23.05.2016
SCALE
ISSUE A

ANTHONY VAVAYIS + ASSOCIATES
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PIETY THP

25 GEORGE STREET
NORTH STRATHFIELD

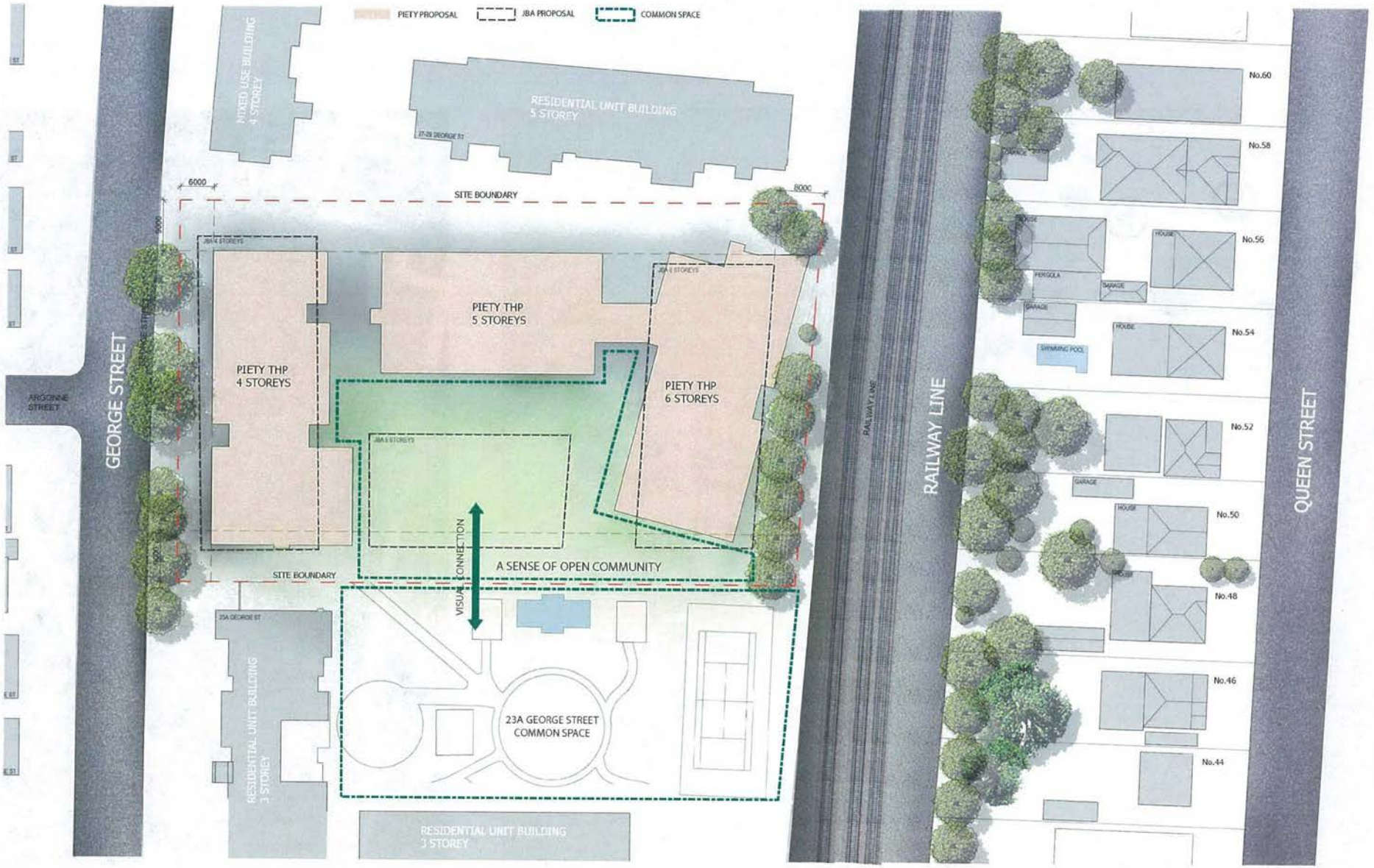
COUNCIL DRAFT MASTER PLAN

P0002

PROJECT 15023

DATE 23.05.2016

ISSUE A



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PIETY THP

25 GEORGE STREET
NORTH STRATHFIELD

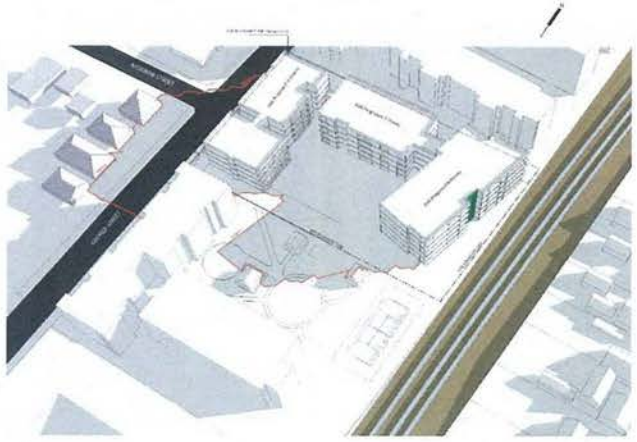
COMPARISON PLAN - KEY CHANGES

P0003

15023

23.05.2016

A



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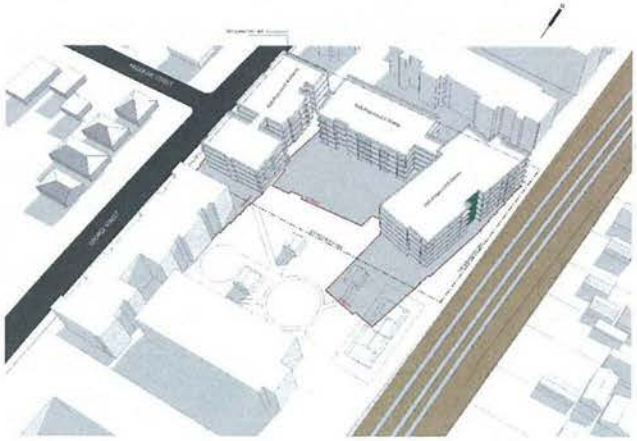

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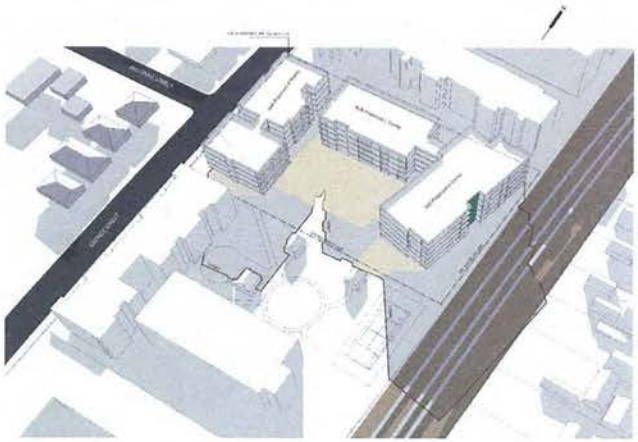

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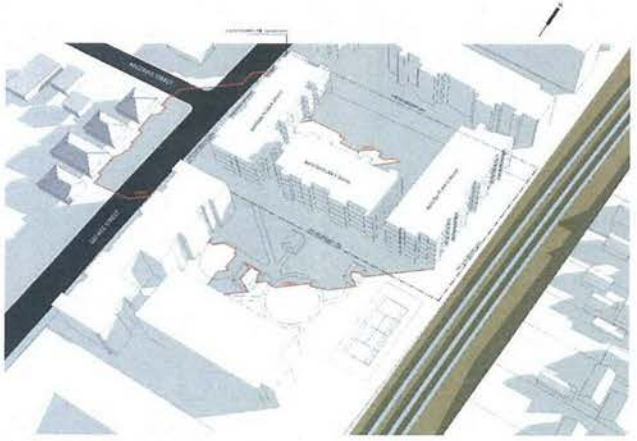

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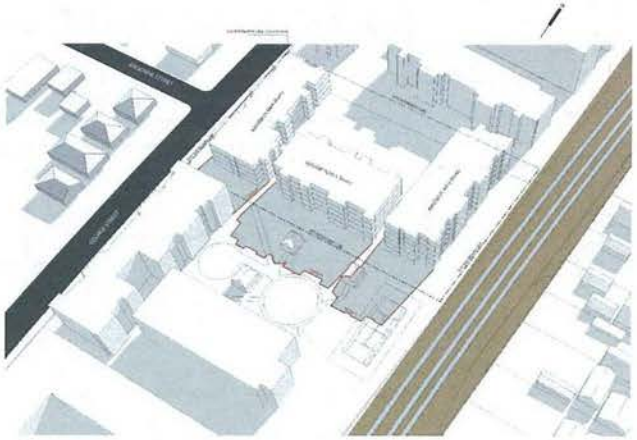

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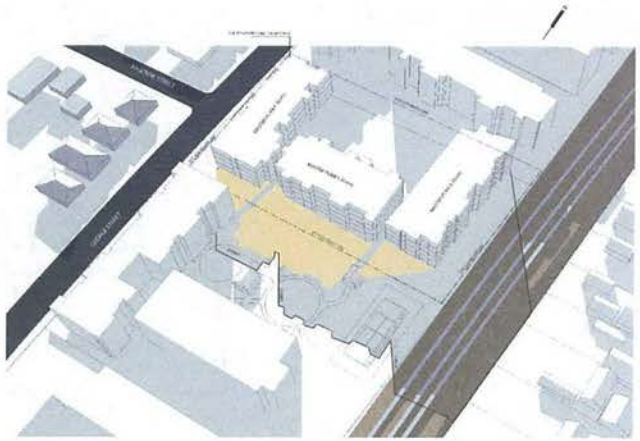

6 JBA SHADOW JUNE 21 - 3PM

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PIETY THP

PROJECT TITLE
25 GEORGE STREET
NORTH STRATHFIELD

DRAWING TITLE
SHADOW ANALYSIS

DRAWING NUMBER
P0004

PROJECT 15023

DATE 23.05.2016

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ISSUE A

1 GROUND FLOOR PLAN
1:200

ANTHONY VAVAYIS + ASSOCIATES

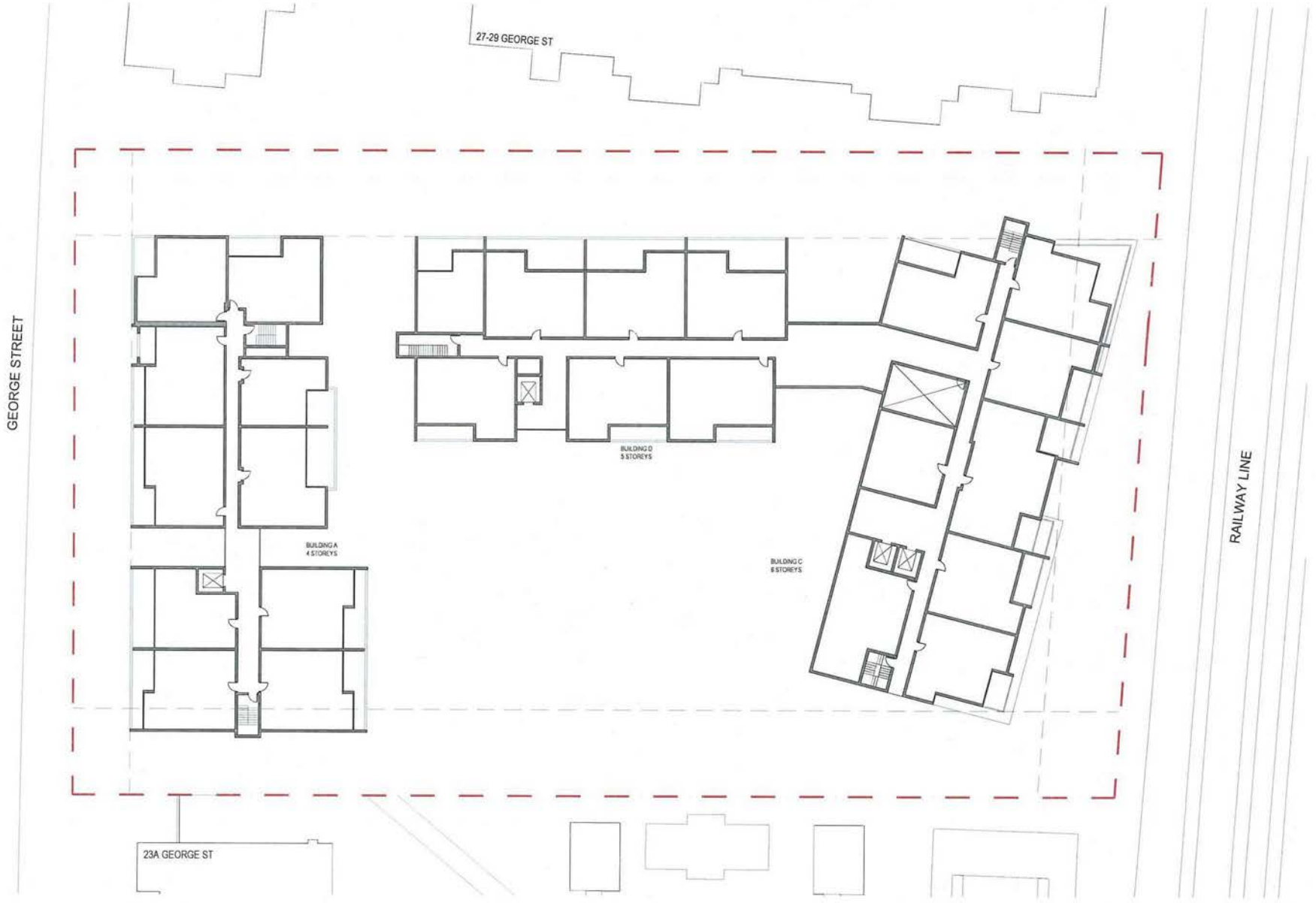
PIETY THP

25 GEORGE STREET
NORTH STRATHFIELD

GROUND LEVEL FLOOR PLAN

P1000

PROJECT 15023
SCALE 1:200 (A1)
DATE 23.05.2016
ISSUE A



1 LEVEL 1-2 FLOOR PLAN
1:200

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PIETY THP

PROJECT TITLE
25 GEORGE STREET
NORTH STRATHFIELD

DRAWING TITLE
LEVEL 1 - 2 PLAN

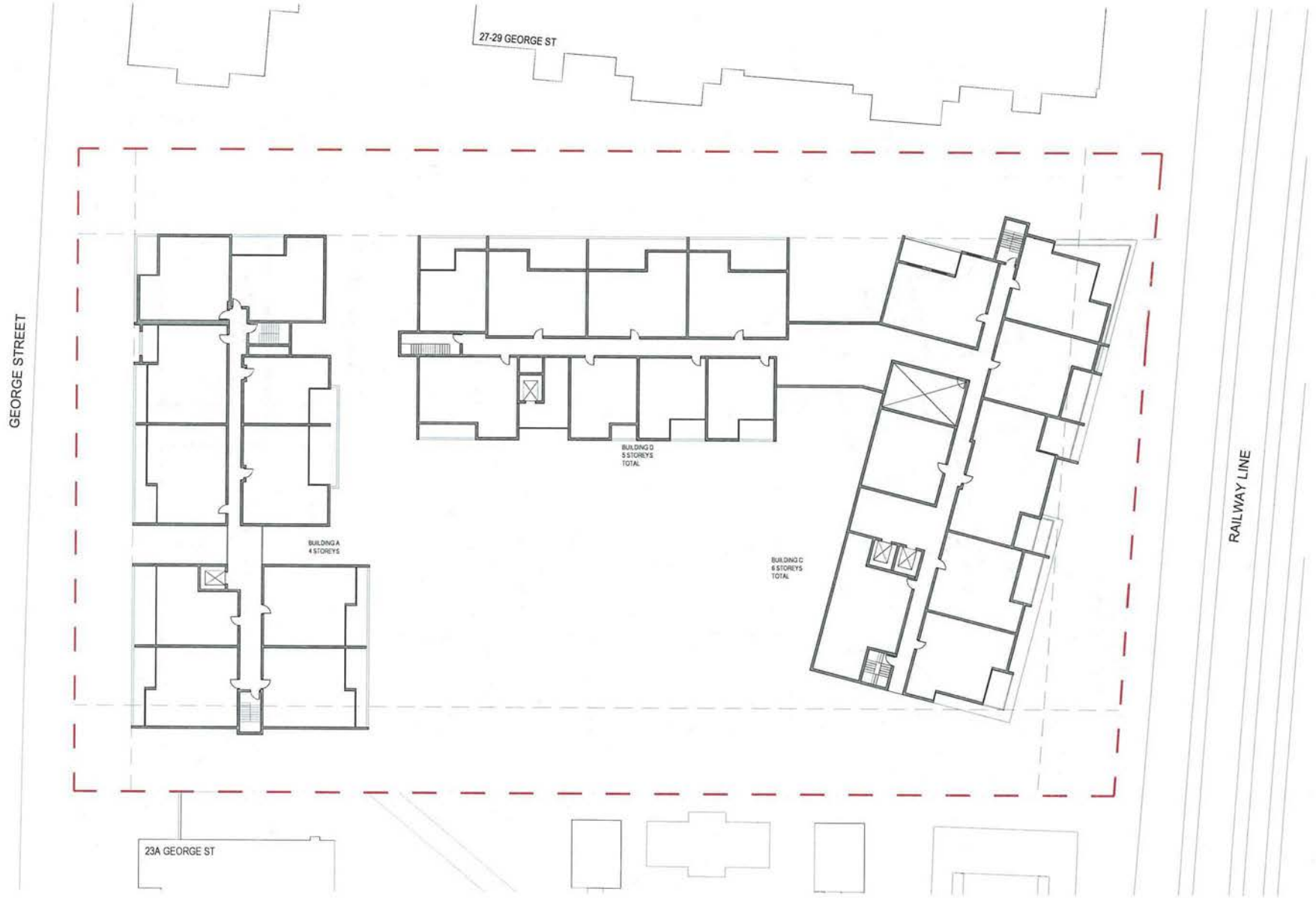
DRAWING NUMBER
P1001

PROJECT 15023

DATE 23.05.2016

SCALE 1:200 [A1]

ISSUE A



1 LEVEL 3 FLOOR PLAN
1:200

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PIETY THP

PROJECT TITLE
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NORTH STRATHFIELD

DRAWING TITLE
LEVEL 3 PLAN

DRAWING NUMBER
P100.2
PROJECT 15023
DATE 23.05.2016
STATUS 1:200 [A1]
ISSUE A

1 LEVEL 4 FLOOR PLAN
1:200

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CLIENT
PIETY THP

PROJECT TITLE
25 GEORGE STREET
NORTH STRATHFIELD

DRAWING TITLE
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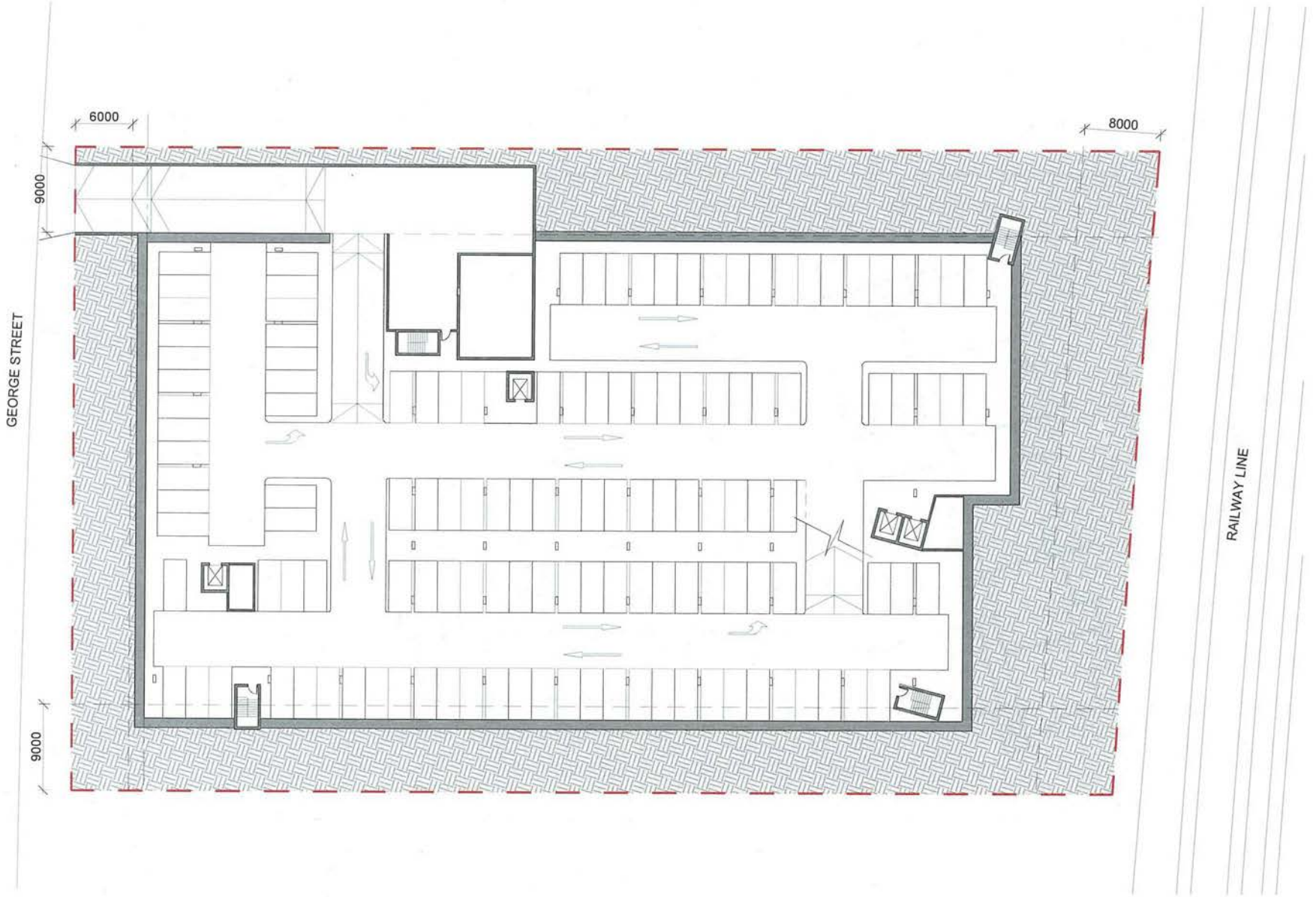
DATE 23.05.2016
ISSUE A



1 TYPICAL BASEMENT FLOOR PLAN
1:200

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ARCHITECTS · DESIGNERS · PLANNERS

CLIENT
PIETY THP

PROJECT TITLE
25 GEORGE STREET
NORTH STRATHFIELD

DRAWING TITLE
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DRAWING NUMBER
P1005
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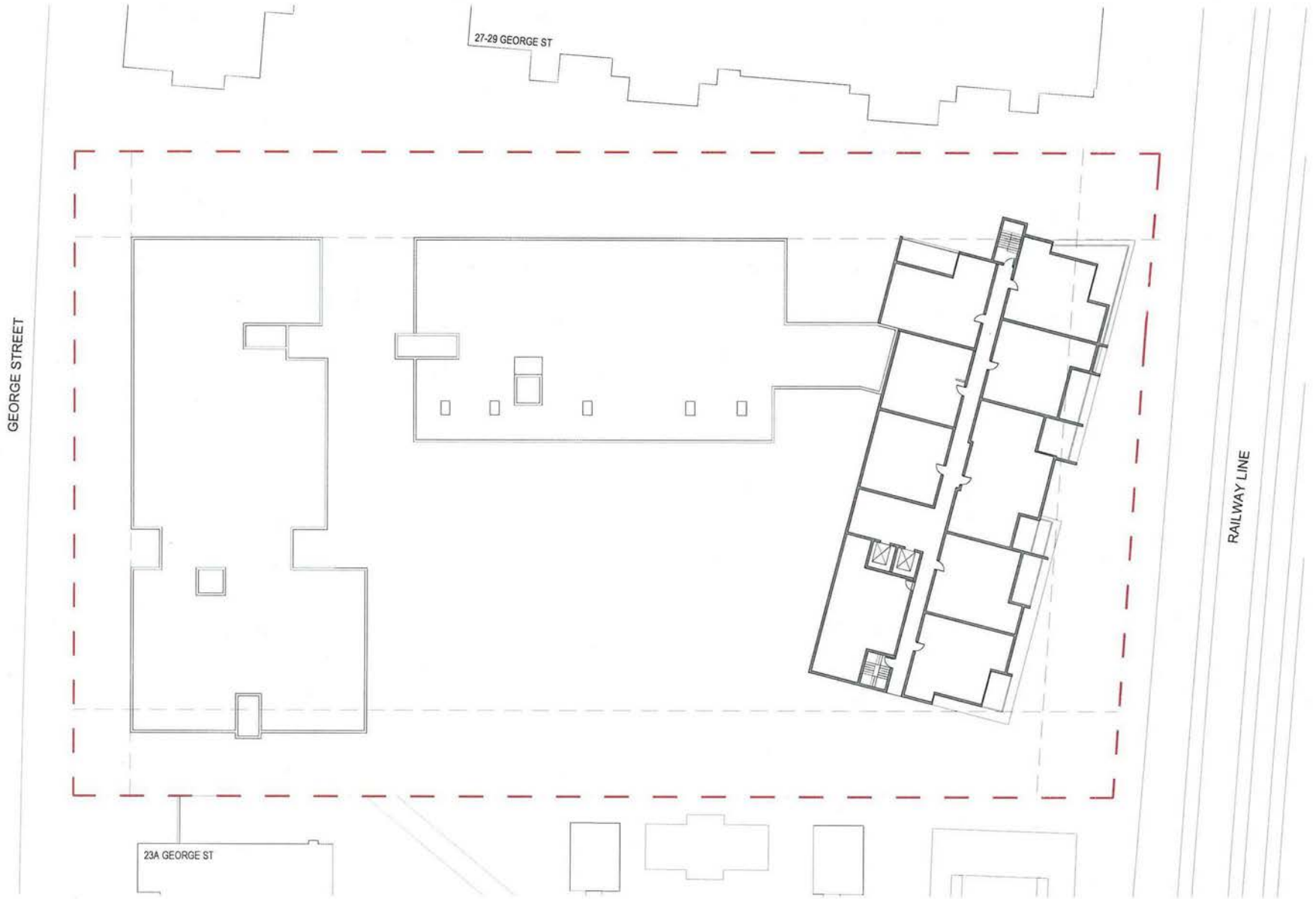
SCALE 1:200 [A1]
DATE 23.05.2016
ISSUE A



1 LEVEL 5 FLOOR PLAN
1:200

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25 GEORGE STREET
NORTH STRATHFIELD

LEVEL 5 FLOOR PLAN

P 100.4
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DATE 23.05.2016
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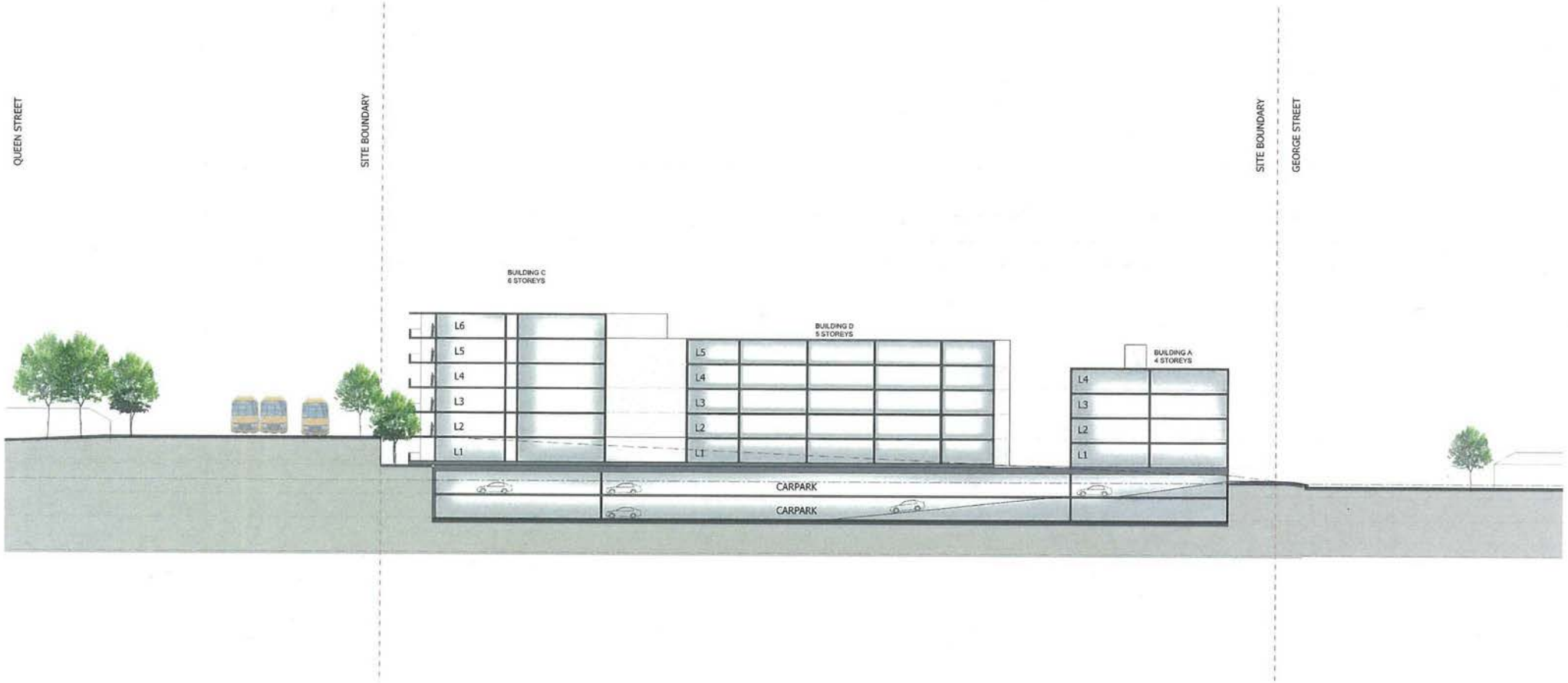
ISSUE A



1 SECTION
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PROJECT TITLE
25 GEORGE STREET
NORTH STRATHFIELD

DRAWING TITLE
INDICATIVE SECTION

DRAWING NUMBER
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PROJECT 15023
DATE 23.05.2016
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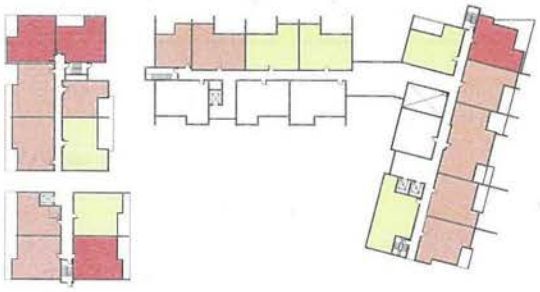
Issue A



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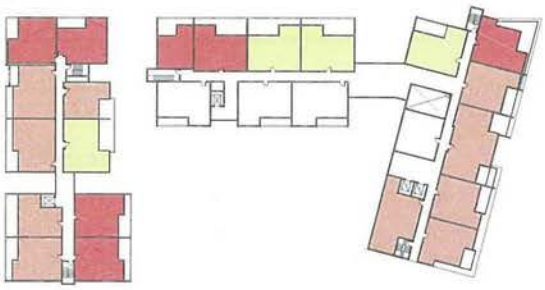

2 LEVEL 1 FLOOR PLAN
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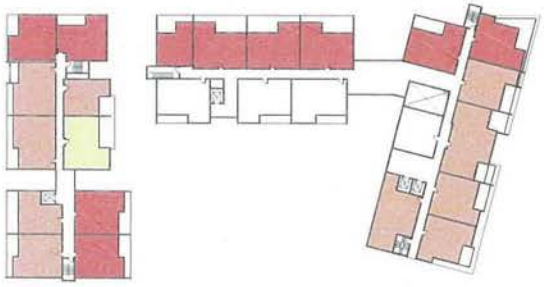

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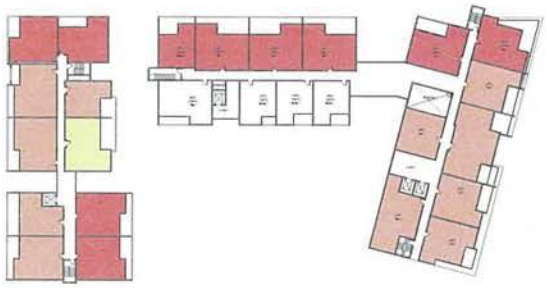


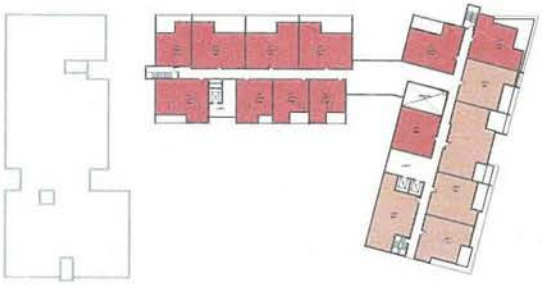
4 LEVEL 3 FLOOR PLAN
1:500

SEPP 65 SOLAR ACCESS ANALYSIS				
		HOURS OF SOLAR ACCESS		
LEVELS	0	0<HRS LIGHT<2	2<HRS LIGHT<3	HRS LIGHT >3
Ground Floor	4	6	11	4
Level 1	4	4	11	6
Level 2	4	1	10	10
Level 3	4	1	11	10
Level 4	0	0	5	11
Level 5	0	0	5	4
TOTAL	16	12	53	45
PERCENTAGE	13%	10%	42%	36%

SEPP 65 REQUIREMENTS			
Proposed Development (no. of Units)	SEPP 65. Min.70% Apt. sun 2HR (no. of Units)	Solar Access for Proposed Development (no. of Units)	Apartments with Min. 2Hr Sun (%)
126	88.2	98	78%

SEPP 65 REQUIREMENTS			
Proposed Development (no. of Units)	SEPP 65. Max 15% Apt. no sunlight (no. of Units)	Proposed Development with no sunlight (no. of Units)	Apartments with no sunlight (%)
126	18.9	16	13%

9 SEPP 65 - SUN ACCESS ANALYSIS



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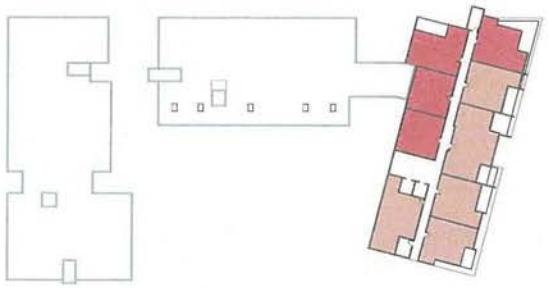

6 LEVEL 5 FLOOR PLAN
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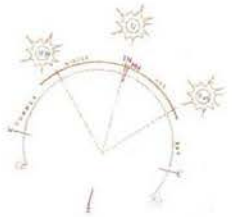
7 KEY



8 SUN PATH - JUNE 21ST

ANTHONY VAVAYIS + ASSOCIATES
ARCHITECTS

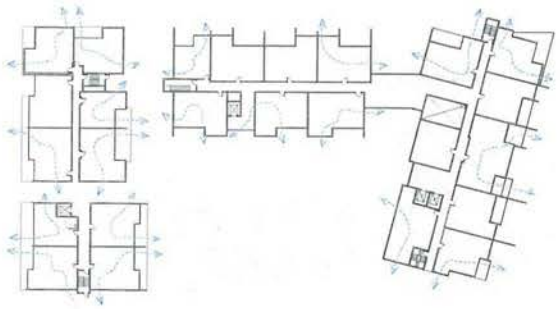
CLIENT
PIETY THP

PROJECT TITLE
25 GEORGE STREET
NORTH STRATHFIELD

DRAWING TITLE
SEPP 65 ANALYSIS - SUN ACCESS

DRAWING NUMBER
P6000

PROJECT 15023
STATUS
DATE 23.05.2016
ISSUE A



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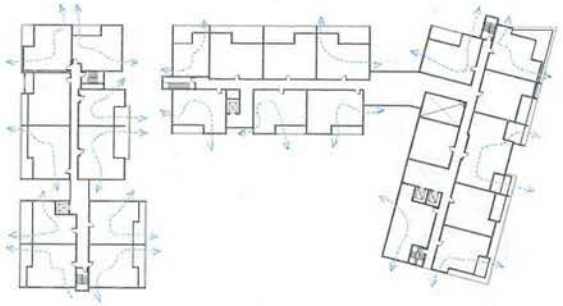

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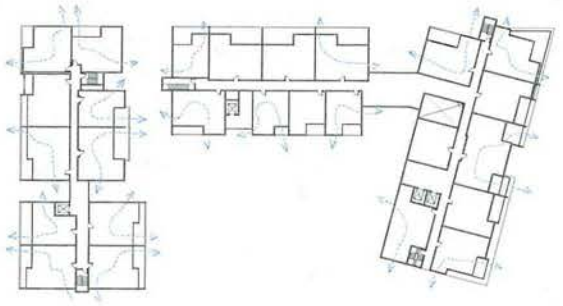

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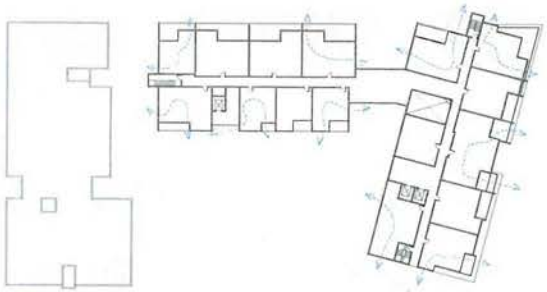

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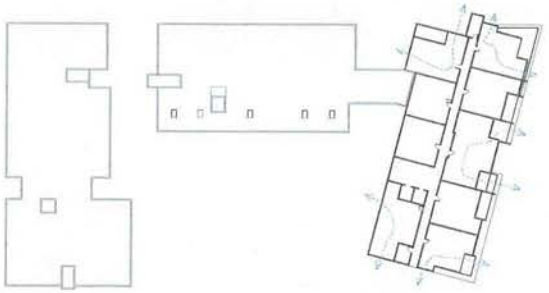


5 LEVEL 5 FLOOR PLAN
1:500

SEPP 65 NATURAL CROSS VENTILATION ANALYSIS

	CROSS VENTILATION	NO CROSS VENTILATION
Ground Floor	19	6
Level 1	19	6
Level 2	19	6
Level 3	19	7
Level 4	10	6
Level 5	5	4
TOTAL	91	35
PERCENTAGE	72%	28%

SEPP 65 REQUIREMENTS

Proposed Development (no. of Units)	SEPP 65. Min 60% Apt. Cross Ventilation (no. of Units)	Proposed Development with cross ventilation (no. of Units)	Apartments with cross ventilation (%)
126	75.6	91	72%

5 SEPP 65 - NATURAL CROSS VENTILATIONANALYSIS

ANTHONY VAVAYIS + ASSOCIATES
ARCHITECTS · PLANNERS · DESIGNERS

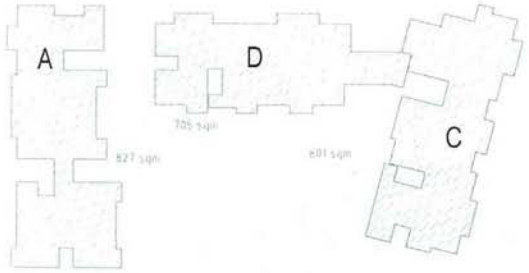
CLIENT
PIETY THP

PROJECT TITLE
25 GEORGE STREET
NORTH STRATHFIELD

DRAWING TITLE
SEPP 65 ANALYSIS - CROSS VENTILATION

DRAWING NUMBER
P6001

PROJECT 15023
SCALE 1:200 [A1]
DATE 23.05.2016
ISSUE A



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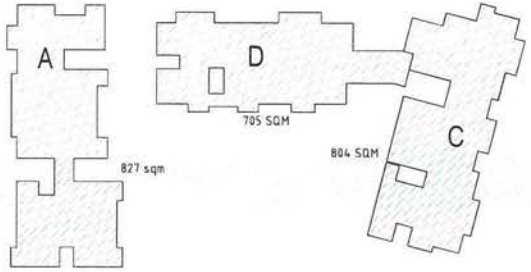

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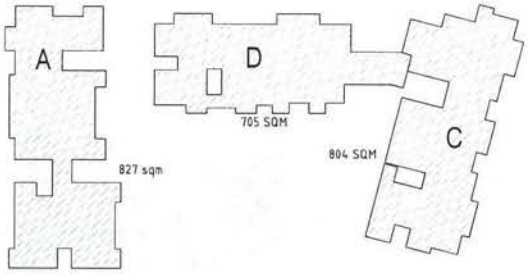

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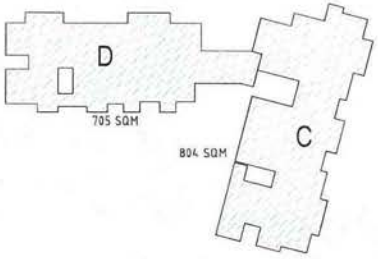
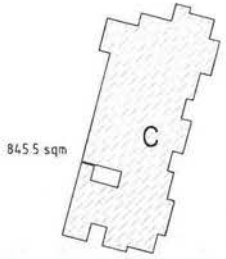


3 LEVEL 4 FLOOR PLAN
1:500



4 LEVEL 5 FLOOR PLAN
1:500

APARTMENT ANALYSIS		
BUILDING A	**NO OF APARTMENTS**	**GFA**
Ground Floor	10	827
Level 1	10	827
Level 2	10	827
Level 3	10	827
BUILDING D		
Ground Floor	7	705
Level 1	7	705
Level 2	7	705
Level 3	8	705
Level 4	8	705
BUILDING C		
Ground Floor	8	800
Level 1	8	804
Level 2	8	804
Level 3	8	804
Level 4	8	804
Level 5	9	845.5

TOTAL	126	11694.5
SITE AREA		7485
PERMISSIBLE FSR		1.6 : 1
PROPOSED FSR		1.6 : 1

5 SEPP 65 - FSR SUMMARY

ANTHONY VAVAYIS + ASSOCIATES
ARCHITECTS CRAFTSMEN PLANNERS

CLIENT
PIETY THP

PROJECT TITLE
25 GEORGE STREET
NORTH STRATHFIELD

DRAWING TITLE
FSR CALCULATIONS

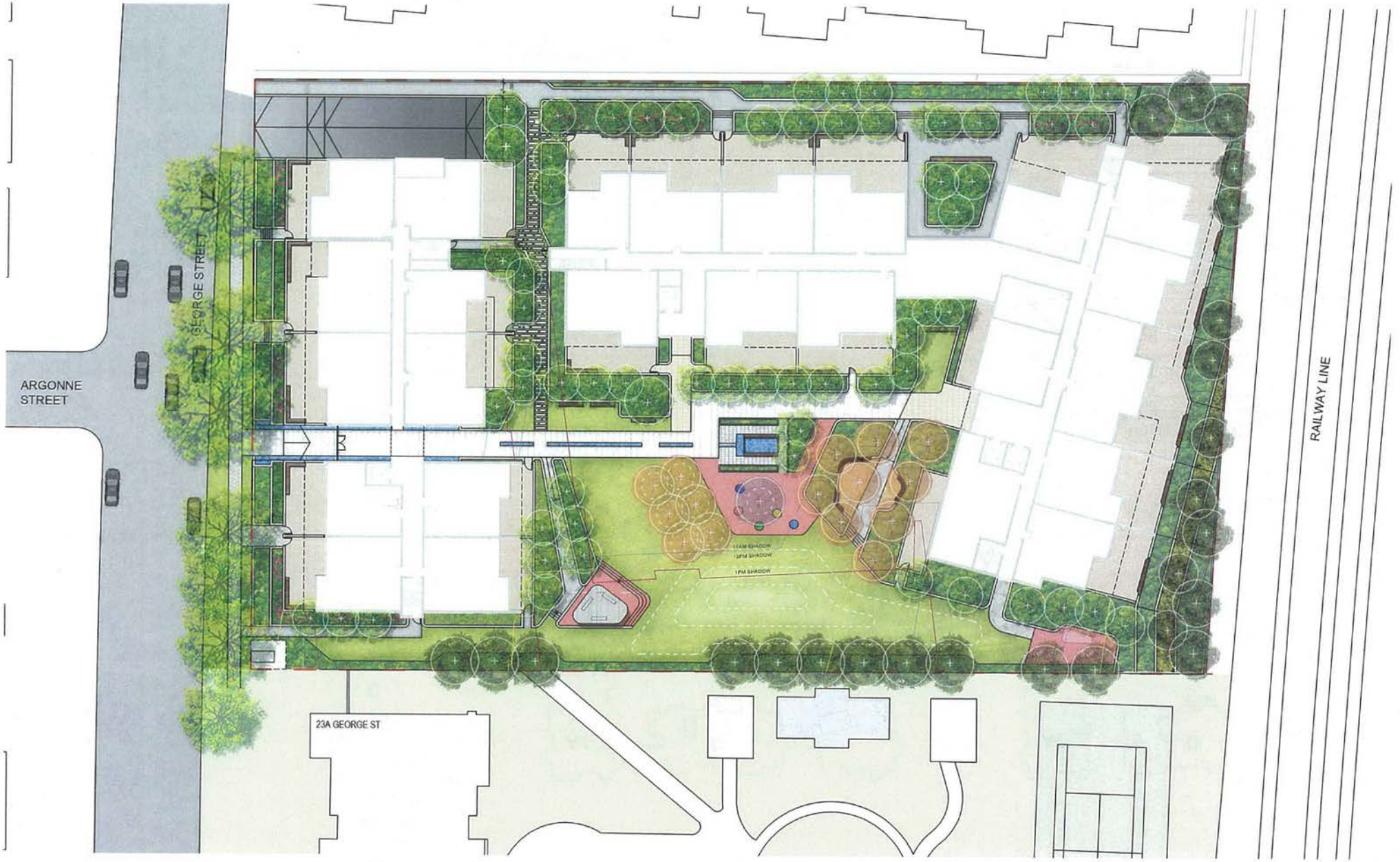
DRAWING NUMBER
P6002

PROJECT 15023

DATE 23.05.2016

SCALE

ISSUE A



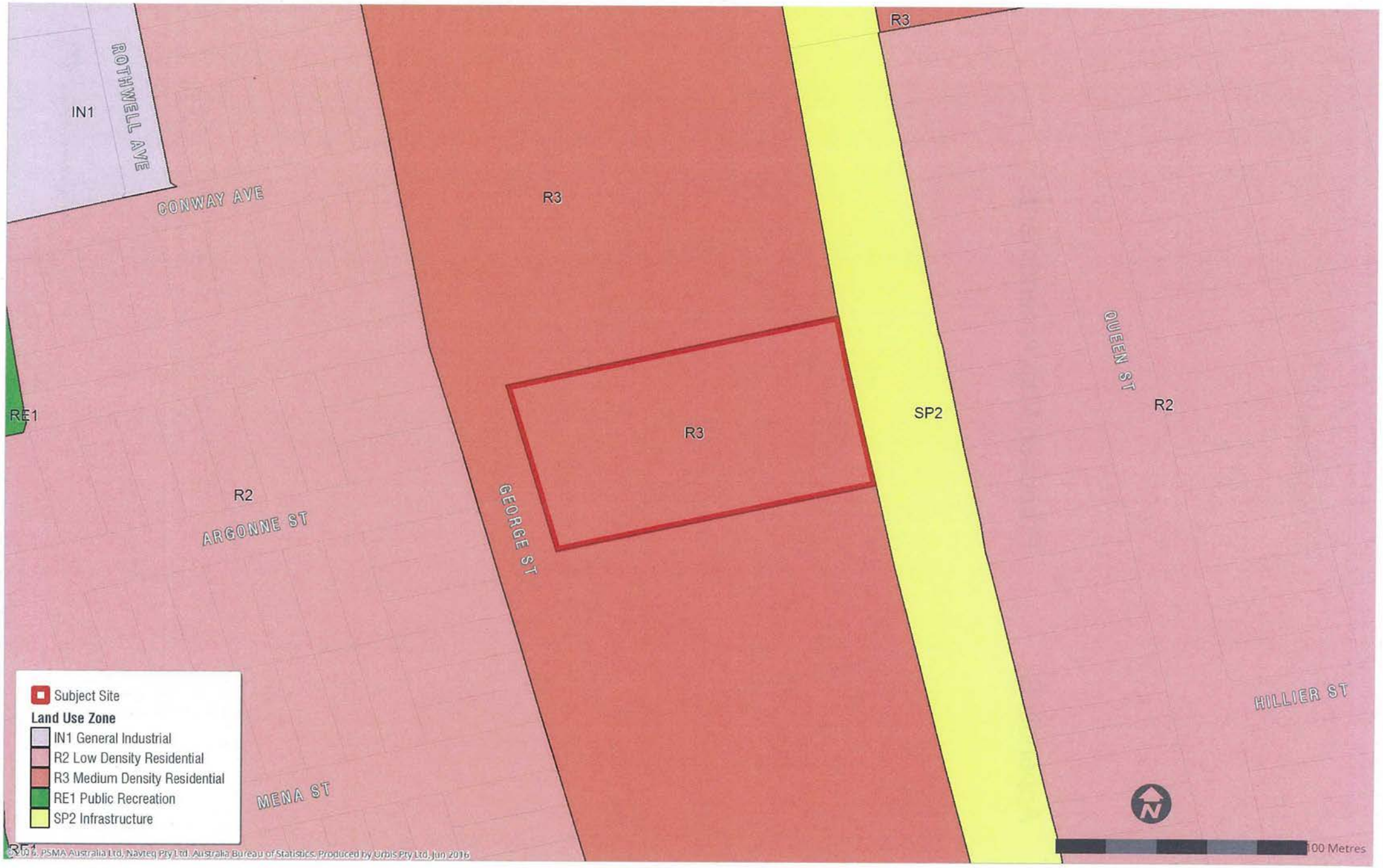
25 GEORGE ST - LANDSCAPE MASTER PLAN

Scale: 1:400@A3

urbis

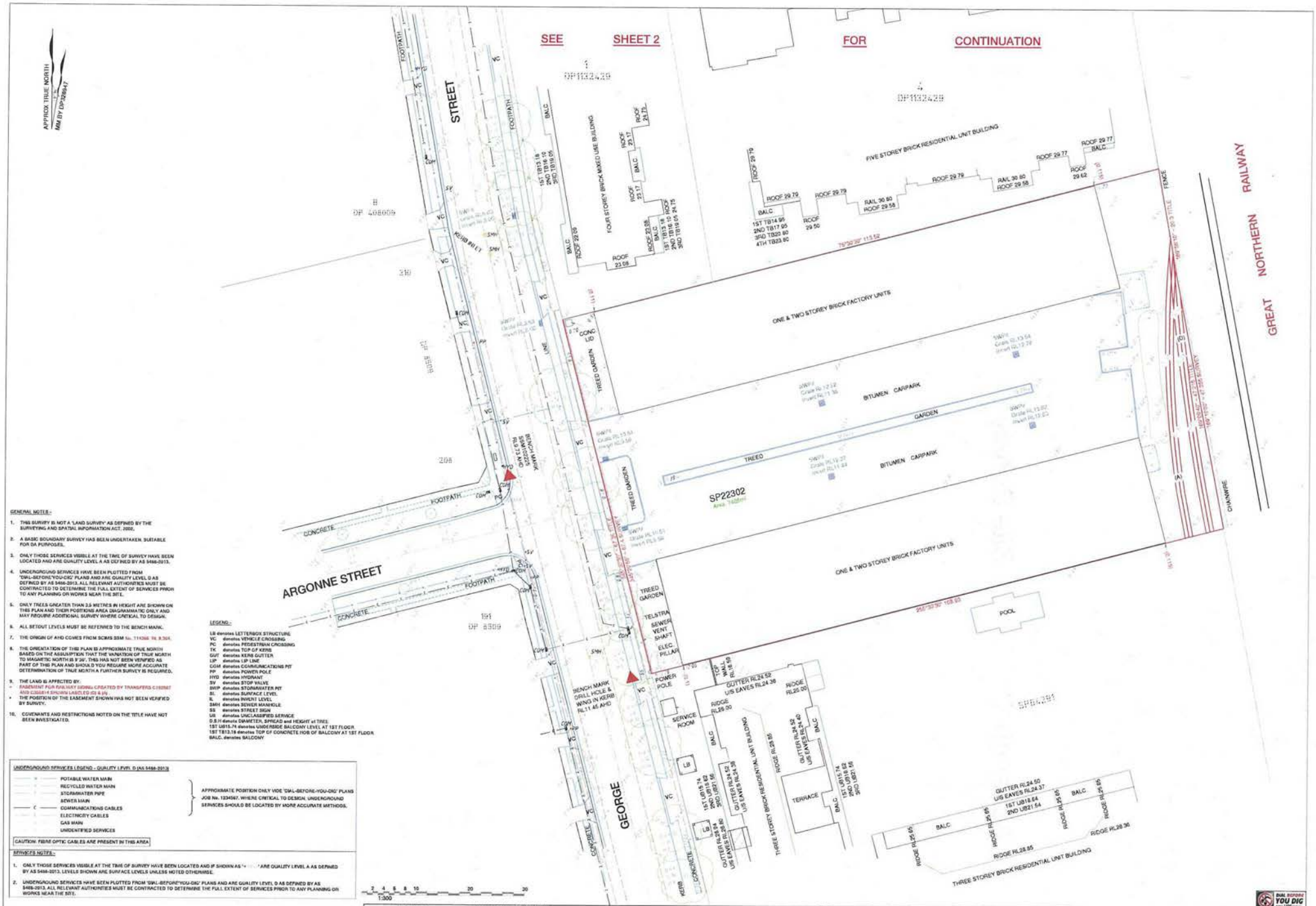
PROJECT NO: NO 1372
TYPE: CONCEPT
DATE: 30.05.16
ISSUE: C
PAGE: 1

Appendix B Proposed Map Amendments


IN1
ROTHWELL AVE
CONWAY AVE
R3
R3
R3
SP2
QUEEN ST
R2
RE1
R2
ARGONNE ST
GEORGE ST
HILLIER ST
MENA ST
Subject Site
Land Use Zone
IN1 General Industrial
R2 Low Density Residential
R3 Medium Density Residential
RE1 Public Recreation
SP2 Infrastructure
100 Metres
© 2016. PSMA Australia Ltd, Navteq Pty Ltd, Australia Bureau of Statistics. Produced by Urbis Pty Ltd, Jun 2016


ROTHWELL AVE
CONWAY AVE
GEORGE ST
ARGONNE ST
MENA ST
QUEEN ST
HILLIER ST
M
I
O2
R2
Subject Site
Height of Building
I 8.5
M 12.0
O2 16.0
R2 22.0
100 Metres
© 2016. PSMA Australia Ltd, Navteq Pty Ltd, Australia Bureau of Statistics. Produced by Urbis Pty Ltd, May 2016

Appendix C Site Survey


SEE SHEET 2 FOR CONTINUATION
APPROX TRUE NORTH
Mid BY DP328947
GEORGE STREET
ARGONNE STREET
GREAT NORTHERN RAILWAY
FOOTPATH
CONCRETE
KERB INLET
BENCH MARK
SSM 11436
RL 9.304 AHD
DP1132429
DP 408609
DP 8309
SP22302
Area: 7484m²
FIVE STOREY BRICK RESIDENTIAL UNIT BUILDING
FOUR STOREY BRICK MIXED USE BUILDING
ONE & TWO STOREY BRICK FACTORY UNITS
BITUMEN CARPARK
GARDEN
TREED
TREED GARDEN
CONC LID
FENCE
CHAINWIRE
POOL
TELSTRA SEWER VENT SHAFT
ELEC PILLAR
POWER POLE
SERVICE ROOM
TERRACE
THREE STOREY BRICK RESIDENTIAL UNIT BUILDING
THREE STOREY BRICK RESIDENTIAL UNIT BUILDING
BENCH MARK DRILL HOLE & WING IN KERB RL11.45 AHD
GENERAL NOTES:-
1. THIS SURVEY IS NOT A 'LAND SURVEY' AS DEFINED BY THE SURVEYING AND SPATIAL INFORMATION ACT, 2002.
2. A BASIC BOUNDARY SURVEY HAS BEEN UNDERTAKEN SUITABLE FOR DA PURPOSES.
3. ONLY THOSE SERVICES VISIBLE AT THE TIME OF SURVEY HAVE BEEN LOCATED AND ARE QUALITY LEVEL A AS DEFINED BY AS 5488-2013.
4. UNDERGROUND SERVICES HAVE BEEN PLOTTED FROM 'DIAL-BEFORE-YOU-DIG' PLANS AND ARE QUALITY LEVEL D AS DEFINED BY AS 5488-2013. ALL RELEVANT AUTHORITIES MUST BE CONTRACTED TO DETERMINE THE FULL EXTENT OF SERVICES PRIOR TO ANY PLANNING OR WORKS NEAR THE SITE.
5. ONLY TREES GREATER THAN 2.5 METRES IN HEIGHT ARE SHOWN ON THIS PLAN AND THEIR POSITIONS AREA DIAGRAMMATIC ONLY AND MAY REQUIRE ADDITIONAL SURVEY WHERE CRITICAL TO DESIGN.
6. ALL SETOUT LEVELS MUST BE REFERRED TO THE BENCH MARK.
7. THE ORIGIN OF AHD COMES FROM SCIMS SSM No. 11436 RL 9.304.
8. THE ORIENTATION OF THIS PLAN IS APPROXIMATE TRUE NORTH BASED ON THE ASSUMPTION THAT THE VARIATION OF TRUE NORTH TO MAGNETIC NORTH IS 9°30'. THIS HAS NOT BEEN VERIFIED AS PART OF THIS PLAN AND SHOULD YOU REQUIRE MORE ACCURATE DETERMINATION OF TRUE NORTH A FURTHER SURVEY IS REQUIRED.
9. THE LAND IS AFFECTED BY:
- EASEMENT FOR RAILWAY SIDING CREATED BY TRANSFERS C192567 AND C356814 SHOWN LABELED (D) & (H).
- THE POSITION OF THE EASEMENT SHOWN HAS NOT BEEN VERIFIED BY SURVEY.
10. COVENANTS AND RESTRICTIONS NOTED ON THE TITLE HAVE NOT BEEN INVESTIGATED.
LEGEND:-
LB denotes LETTERBOX STRUCTURE
VC denotes VEHICLE CROSSING
PC denotes PEDESTRIAN CROSSING
TK denotes TOP OF KERB
GUT denotes KERB GUTTER
LIP denotes LIP LINE
CGM denotes COMMUNICATIONS PIT
PP denotes POWER POLE
HYD denotes HYDRANT
SV denotes STOP VALVE
SWP denotes STORMWATER PIT
SL denotes SURFACE LEVEL
IL denotes INVERT LEVEL
SMH denotes SEWER MANHOLE
SS denotes STREET SIGN
UB denotes UNCLASSIFIED SERVICE
D,S,H denote DIAMETER, SPREAD and HEIGHT of TREE
1ST UB15.74 denotes UNDERSIDE BALCONY LEVEL AT 1ST FLOOR
1ST TB13.18 denotes TOP OF CONCRETE ROB OF BALCONY AT 1ST FLOOR
BALC. denotes BALCONY
UNDERGROUND SERVICES LEGEND - QUALITY LEVEL D (AS 5488-2013)
POTABLE WATER MAIN
RECYCLED WATER MAIN
STORMWATER PIPE
SEWER MAIN
COMMUNICATIONS CABLES
ELECTRICITY CABLES
GAS MAIN
UNIDENTIFIED SERVICES
APPROXIMATE POSITION ONLY VIDE 'DIAL-BEFORE-YOU-DIG' PLANS JOB No. 1234567. WHERE CRITICAL TO DESIGN, UNDERGROUND SERVICES SHOULD BE LOCATED BY MORE ACCURATE METHODS.
CAUTION: FIBRE OPTIC CABLES ARE PRESENT IN THIS AREA
SERVICES NOTES:-
1. ONLY THOSE SERVICES VISIBLE AT THE TIME OF SURVEY HAVE BEEN LOCATED AND IF SHOWN AS '+ ' ARE QUALITY LEVEL A AS DEFINED BY AS 5488-2013. LEVELS SHOWN ARE SURFACE LEVELS UNLESS NOTED OTHERWISE.
2. UNDERGROUND SERVICES HAVE BEEN PLOTTED FROM 'DIAL-BEFORE-YOU-DIG' PLANS AND ARE QUALITY LEVEL D AS DEFINED BY AS 5488-2013. ALL RELEVANT AUTHORITIES MUST BE CONTRACTED TO DETERMINE THE FULL EXTENT OF SERVICES PRIOR TO ANY PLANNING OR WORKS NEAR THE SITE.
1:300
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ISSUE A DATE 11/11/15 AMENDMENT INITIAL PLAN
CLIENT: NORTH STRATHFIELD 1 PTY LTD
SCALE 1:300
ORIGIN OF LEVELS: SSM114366 RL 9.304
DATUM: A.H.D.
REF.: 6918
DATE: 11/11/2015
SURV/CHK: NC/MT
SHEET 1 OF 2 SHEETS
PLAN A1
ISSUE
DETAIL AND LEVEL SURVEY OF S.P22302
25 GEORGE STREET
NORTH STRATHFIELD
SDG LAND DEVELOPMENT SOLUTIONS
DIAL BEFORE YOU DIG

LEGEND :-

LB denotes LETTERBOX STRUCTURE
VC denotes VEHICLE CROSSING
PC denotes PEDESTRIAN CROSSING
TK denotes TOP OF KERB
GUT denotes KERB GUTTER
LBP denotes LIP LINE
COM denotes COMMUNICATIONS PIT
PP denotes POWER POLE
HYD denotes HYDRANT
SV denotes STOP VALVE
SWP denotes STORMWATER PIT
SL denotes SURFACE LEVEL
IL denotes INVERT LEVEL
SMH denotes SEWER MANHOLE
SS denotes STREET SIGN
UC denotes UNCLASSIFIED SERVICE
D.S.H denote DIAMETER, SPREAD and HEIGHT of TREE
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BALC. denotes BALCONY

GENERAL NOTES :-

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6. ALL SETOUT LEVELS MUST BE REFERRED TO THE BENCH MARK.
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9. THE LAND IS AFFECTED BY:
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   - THE POSITION OF THE EASEMENT SHOWN HAS NOT BEEN VERIFIED BY SURVEY.
10. COVENANTS AND RESTRICTIONS NOTED ON THE TITLE HAVE NOT BEEN INVESTIGATED.

UNDERGROUND SERVICES LEGEND - QUALITY LEVEL D (AS 5488-2013)

- POTABLE WATER MAIN
- RECYCLED WATER MAIN
- STORMWATER PIPE
- SEWER MAIN
- COMMUNICATIONS CABLES
- ELECTRICITY CABLES
- GAS MAIN
- UNIDENTIFIED SERVICES

APPROXIMATE POSITION ONLY VIDE 'DIAL-BEFORE-YOU-DIG' PLANS JOB No. 1234567. WHERE CRITICAL TO DESIGN, UNDERGROUND SERVICES SHOULD BE LOCATED BY MORE ACCURATE METHODS.

CAUTION: FIBRE OPTIC CABLES ARE PRESENT IN THIS AREA

SERVICES NOTES :-

1. ONLY THOSE SERVICES VISIBLE AT THE TIME OF SURVEY HAVE BEEN LOCATED AND IF SHOWN AS '+ ... ' ARE QUALITY LEVEL A AS DEFINED BY AS 5488-2013. LEVELS SHOWN ARE SURFACE LEVELS UNLESS NOTED OTHERWISE.
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2 4 6 8 10 20 30
1:300

ISSUE	DATE	AMENDMENT
A	11/11/2015	INITIAL PLAN

CLIENT: NORTH STRATHFIELD 1 PTY LTD

SCALE 1:300
ORIGIN OF LEVELS: SSM114366 RL 9.364
DATUM: A.H.D.

REF.: 6918
DATE: 11/11/2015
SURV/CHK: NC/MT
SHEET 2 OF 2 SHEETS
PLAN A1
ISSUE A

DETAIL AND LEVEL SURVEY OF S.P.22302
25 GEORGE STREET
NORTH STRATHFIELD

SDG LAND DEVELOPMENT SOLUTIONS
Unit 7 1B Kiama Road NORTHMEAD 2152
P.O.Box 2572 NORTH PARRAMATTA 1750
t: (02) 9630 7555
e: office@sdg.net.au
w: www.sdg.net.au

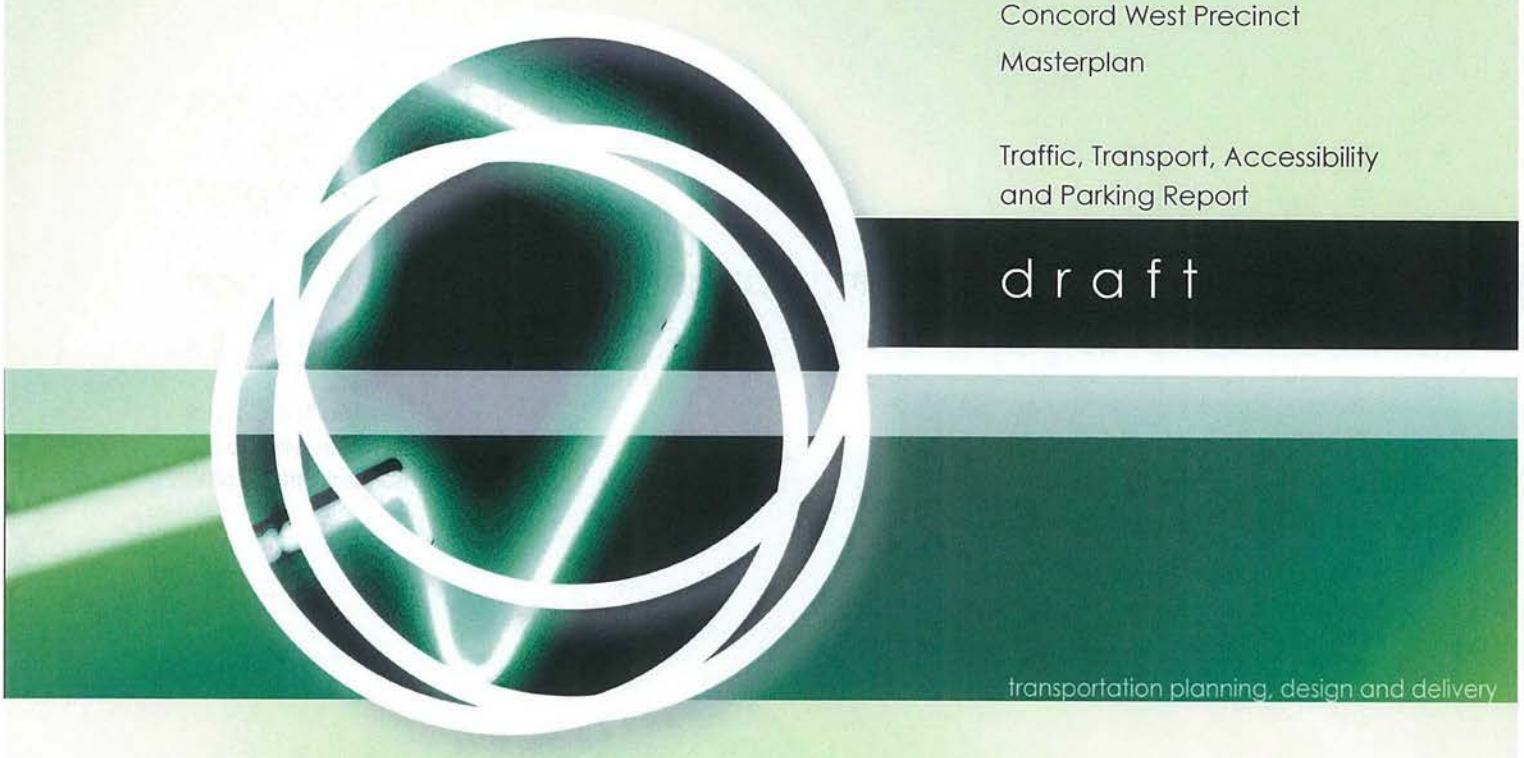
DIAL BEFORE YOU DIG www.1100.com.au

Appendix D Council Traffic Study

Concord West Precinct
Masterplan

Traffic, Transport, Accessibility
and Parking Report

draft



transportation planning, design and delivery

GTAconsultants

Concord West Precinct

Masterplan

Traffic, Transport, Accessibility and Parking Report

Issue: A-Dr 02/05/14

Client: City of Canada Bay Council
Reference: 14S1097000
GTA Consultants Office: NSW

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A-Dr	02/05/14	Draft	Andrew Farran	Brett Maynard	Brett Maynard	

GTAconsultants
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Executive Summary

From a transport perspective, the study area represents a relatively unique situation, with the neighbourhood area bordered by the railway line to the east, Homebush Bay Drive to the west and the Liberty Grove development to the north. As a result, all vehicle access to the study area is provided via George Street to the south. This "funnel" effect results in periods of congestion (including increased delays and queuing) at the George Street/ Pomeroy Street intersection.

The study area has good public transport accessibility with the Concord West Railway Station located within a short walking distance of the majority of the study area. The frequent rail services are complemented by bus services that operate along Concord Road to the east of the site. In addition the study area is well positioned in relation to the regional bicycle network.

Recently, the Department of Planning and Infrastructure approved the construction of a new primary school facility within the study area. The new school will generate additional traffic onto the surrounding road network and further increase congestion at the George Street/ Pomeroy Street intersection. In order to mitigate the impact of the additional traffic generated by the school, a new left turn slip lane is to be constructed at the George Street/ Pomeroy Street intersection. These works will increase the overall capacity at the intersection.

A sensitivity assessment was undertaken by GTA Consultants using SIDRA INTERSECTION modelling software to determine the level of additional traffic from the study area that could be accommodated at the intersection without compromising its operation. The intersection capacity assessment was based on a number of traffic and road network assumptions agreed with the City of Canada Bay Council prior to the assessment and detailed within the GTA transport report.

In order to undertake this sensitivity assessment, residential traffic generation rates were sourced from relevant RMS guidance (i.e. 0.29 peak hour movements per dwelling). Application of this traffic generation rate indicated that the George Street/ Pomeroy Street intersection was capable of accommodating the additional traffic generated by some 785 dwellings within the rezoned lands. The Table below provides an overview of the anticipated future traffic volumes on George Street following the rezoning of the industrial lands.

Table E1: Future George Street Traffic Volumes (North of Pomeroy Street)

Traffic Source	Vehicles Per Hour	
	AM Peak Hour	PM Peak Hour
Existing Traffic Volumes	730	780
Primary School (under construction)	+356	- [1]
Rezoned Industrial Lands	+228	+228
Total	**1,314**	**1,008**

[1] The afternoon school peak will occur outside the road network peak hour.

Table E1 indicates that post development traffic volumes on George Street are anticipated to increase by approximately 580 and 230 vehicles during the AM and PM peak periods. During the AM peak hour the additional traffic generated by the rezoned lands represents 40% of the additional George Street traffic volumes, with the primary school accounting for 60% of the additional traffic. The primary school is not anticipated to generate any significant additional traffic during the road network PM peak hour.

The modelling indicates that, following full development, the intersection is anticipated to operate at a comparable level of service to its current operation, with typically manageable queues and delays on all approaches.

An overall development yield higher that indicated above would likely require additional mitigating works at the George Street/ Pomeroy Street intersection. Any such works would require land acquisition and significant associated property impacts. The provision of additional vehicle access points into and out of the study area was considered as part of the assessment, however, it was concluded that the cost associated with any potential future access points would be prohibitive.

Broader road network considerations are discussed further within the GTA report.

Traffic generation is closely linked to available car parking. As such, in order to minimise traffic generation into and out of the study area, it is recommended that on-site resident car parking be minimised. In this regard it is recommended that maximum resident car parking rates be imposed on future residential development on the rezoned lands, with a focus on encouraging the use of public transport. This approach to car parking policy would be consistent with the current Rhodes West Development Control Plan which specifies an average maximum of 1 car parking space per dwelling.

In conjunction with the reduced car parking provisions, it is recommended that car parking controls (time and/or permit parking restrictions) are introduced to the existing on-street car parking supply. Any resident parking scheme introduced would be for existing eligible residents within the study area. The provision of a car share service within the study area would cater for the needs of smaller dwelling types that may not be provided with a dedicated on-site car parking space.

The introduction of time restricted car parking within the study area would also reduce the level of non-residential trips to the study area, generated by commuter car parking associated with the Concord West Railway Station.

In conjunction with the lower on-site car parking provisions, it is recommended that appropriate minimum residential bicycle parking requirements are included in the relevant planning controls.

As part of the urban renewal of the industrial zoned lands, there is an opportunity to improve the amenity of the existing pedestrian and cycling environments, particularly along George Street where dedicated on-road or separated bicycle lanes could be provided. Additional bicycle links could also be provided from the site to the existing regional bicycle network that services the broader precinct. Additional pedestrian through-site links increases the permeability of the area and has the potential to reduce walking distances.

The transport assessment prepared by GTA provides further details regarding the above arrangements and has been provided as an attachment to this report.

Table of Contents

Appendices

Figures

Tables

1. Introduction

1.1 Background

The City of Canada Bay Council (Council) is seeking to rezone a number of industrial (IN1 General Industrial) land parcels to residential (R3 Medium Density Residential) within Concord West. At the Council meeting (6 August 2013) it was resolved to endorse the future rezoning of the various properties that form the Concord West Industrial Land (subject site). A Masterplan is being prepared by JBA for the study area which details the indicative future built form and public domain of the rezoned lands.

In terms of transport, Council resolved:

"THAT the planning for the precinct occurs on the assumption that new development will prioritise pedestrians, bicycles and the use of public transport and it be noted that the Urban Design and Traffic studies are to include principles and opportunities that seek to minimise traffic and rates of private car parking."

GTA Consultants (GTA) has prepared this Traffic, Transport, Accessibility and Parking Assessment based on the above Council resolution.

GTA was commissioned by JBA and City of Canada Bay Council in October 2013 to undertake the transport impact assessment for the proposed rezoning.

1.2 Purpose of this Report

This report sets out an assessment of the anticipated transport implications of the proposed rezoning, including consideration of the following:

i existing traffic conditions surrounding the study area
ii identification of future residential car parking rates
iii pedestrian and bicycle requirements
iv the traffic generating characteristics of the rezoned lands
v the transport impact of the development proposal on the surrounding road network.

1.3 References

In preparing this report, reference has been made to the following:

- an inspection of the site and its surrounds
- City of Canada Bay Development Control Plan (DCP)
- Rhodes West Development Control Plan
- Ashfield Council Development Control Plan 2007
- Australian Standard, Parking Facilities, Part 5: On-Street Car Parking AS/NZS 2890.5:1993
- traffic and car parking surveys undertaken by SkyHigh Traffic as referenced in the context of this report
- concept plans for the proposed Masterplan prepared by JBA Planning
- other documents and data as referenced in this report.

2. Existing Conditions

2.1 Study Area

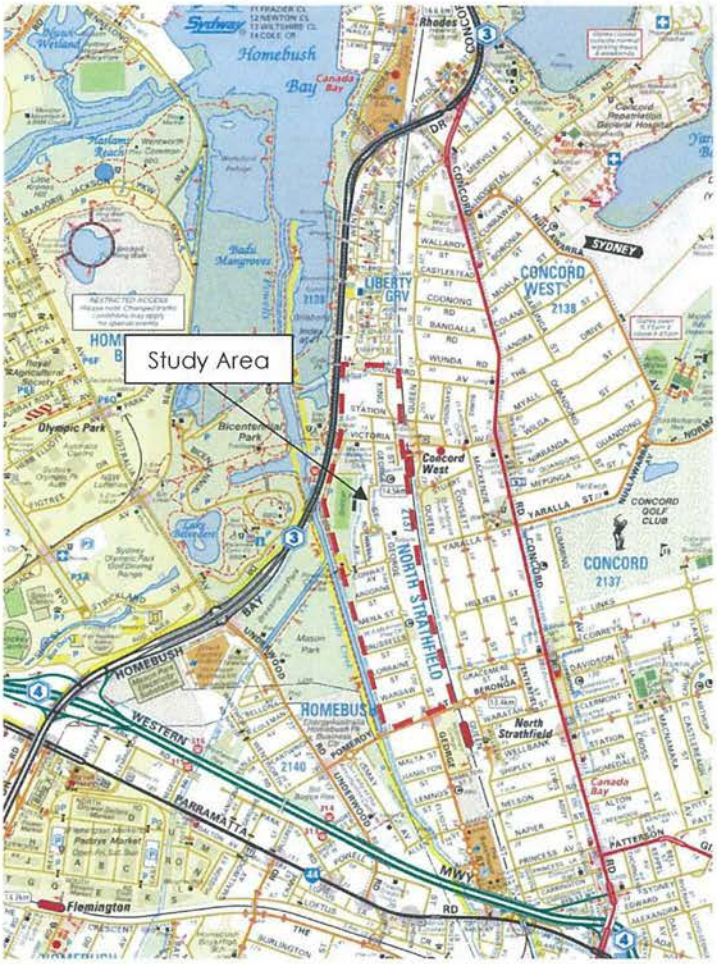
The subject site(s) comprise a number of industrial zoned lands located within a study area bound by Homebush Bay Drive and Powells Creek to the west, Liberty Grove to the north, the railway line to the east and Pomeroy Street to the south.

With the exception of the industrial zoned lands, the study area is generally zoned Low Density Residential (R2), with some areas of Medium Density Residential (R3) and Public Recreation (RE1) also provided.

Liberty Grove, a 'gated' residential community is located to the immediate north of the study area. Rhodes West, an area that has undergone significant urban renewal and intensification is located approximately 1.5km north of the site. McDonald College and the Bakehouse Quarter are located to the south of the study area.

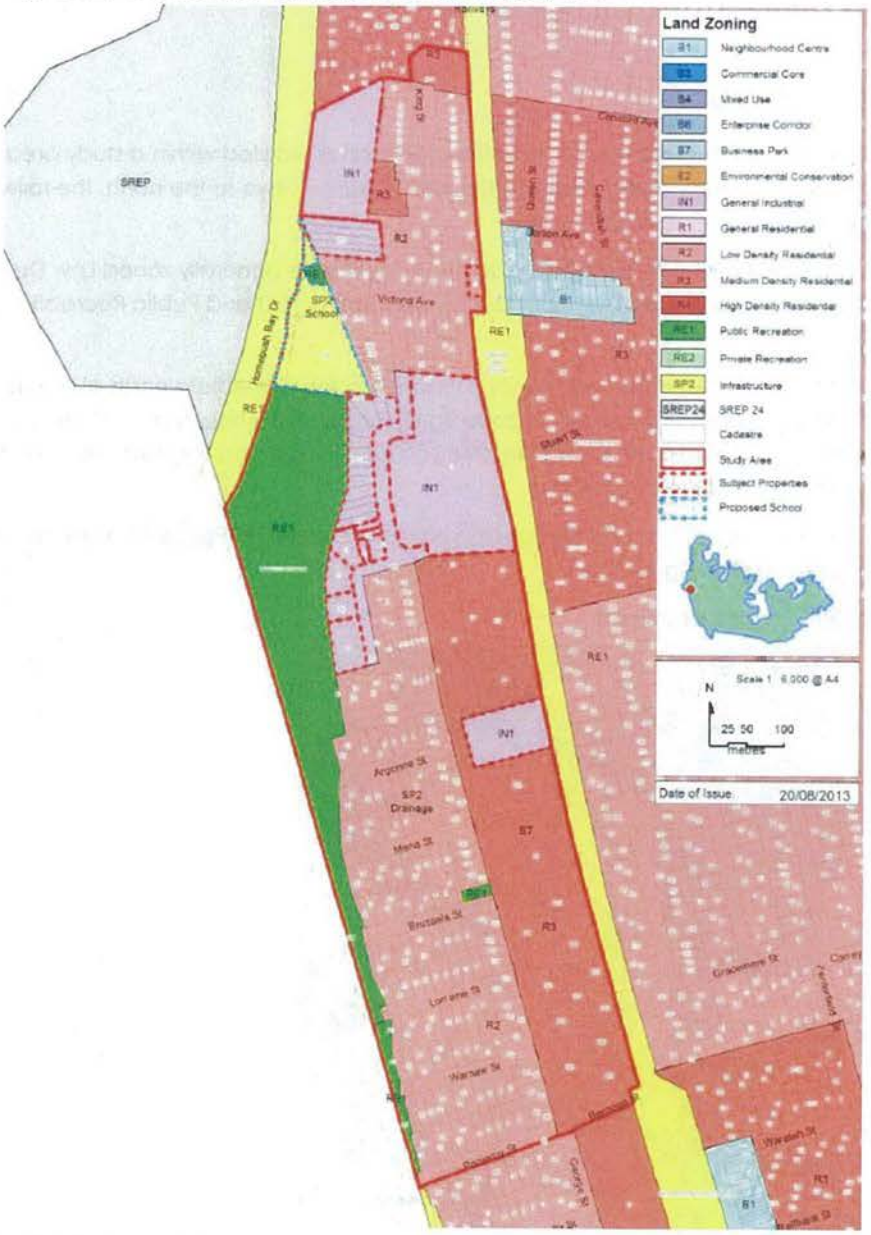
The location of the subject site and its surrounding environs is shown in Figure 2.1, with the existing land use zoning provided in Figure 2.2.

Figure 2.1: Subject Site and Its Environs



Basemap source: Reproduced with permission from Sydway Publishing Pty Ltd

Figure 2.2: Existing Zoning Map (City of Canada Bay LEP)



Source: City of Canada Bay

2.2 Road Network

2.2.1 Arterial Road Network

In the vicinity of the study area, Homebush Bay Drive to the west and Concord Rod to the east form the key north-south routes, whilst Parramatta Road and the Western Motorway (M4) to the south of the study area form the key east-west routes. The Concord Road/ Homebush Bay Drive corridor forms a key north-south link providing access across the Parramatta River, whilst the M4 and Parramatta Road provide the main links between Western Sydney and the CBD. The M4 terminates at Parramatta Road immediately east of Concord Road. During peak periods the

surrounding arterial road network experiences significant congestion which results in some rat-running through the local road network to the south of the study area (Pomeroy Road).

2.2.2 Key Study Area Roads

George Street

George Street is classified as a local road and is aligned in a north-south direction connecting with Parramatta Road to the south and Station Avenue to the north and travels the length of the study area. At Rothwell Avenue, George Street 'kinks' to the west for approximately 170m before returning to its original alignment. It is a two-way road generally configured with a 2-lane, 12.5 metre wide carriageway (varies), set within a 20 metre wide road reserve (approx.). A number of Local Area Traffic Management treatments (roundabout and chicanes) are provided along George Street at Conway Avenue, Mena Street and Lorraine Street. Parallel kerbside parking is permitted along the length of George Street in the study area.

George Street is shown in Figure 2.3 and carries approximately 8,000 vehicles per day (north of George Street) and 1,700 vehicles per day (north of Rothwell Avenue)[1] .

Pomeroy Street

Pomeroy Street functions as a collector road, forming part of a broader link between Concord Road and Homebush Bay Drive. It is a two-way road configured with a 2-lane, 11.8 metre wide carriageway, set within a 20 metre wide road reserve (approx.). Parallel kerbside parking is permitted.

Pomeroy Street is shown in Figure 2.4 and carries approximately 18,000 vehicles per day[2].

Figure 2.3: George Street – Looking North

Figure 2.4: Pomeroy Street – Looking East

2.2.3 Surrounding Intersections

The following key intersections currently exist in the vicinity of the site:

- George Street/ Pomeroy Street (signalised)
- Pomeroy Street/ Queen Street/ Beronga Street
- Parramatta Road/ George Street (signalised).

In addition to the above a number of lower order intersections exist within the study area.

1 Based on 7-day tube counts on George Street commencing 29 October 2013.
2 Based on the peak hour traffic counts undertaken by SkyHigh Traffic on Tuesday 29 October 2013 and assuming a peak-to-daily ratio of 10%.

2.3 Traffic Volumes

GTA Consultants commissioned Skyhigh Traffic Data to undertake turning movement counts at the George Street/ Pomeroy Street intersection on Tuesday 29 October 2013 during the following peak periods:

- 7:00am and 9:00am
- 4:00pm and 6:00pm.

Peak hour counts were also undertaken of the Pomeroy Street/ Queen Street/ Beronga Street roundabout. However, it is noted that access to Queen Street (north approach) was restricted as a result of road works associated with the Northern Sydney Freight Corridor (North Strathfield Underpass). The results of these surveys are provided in Appendix A.

In addition, 24 hour, 7 day automatic tube count surveys were undertaken on George Street immediately north of Pomeroy Street.

The AM and PM peak hour traffic volumes are summarised in Figure 2.5 and Figure 2.6, with the average weekday daily counts provided in Figure 2.7.

Figure 2.5: AM Peak Hour traffic Volumes

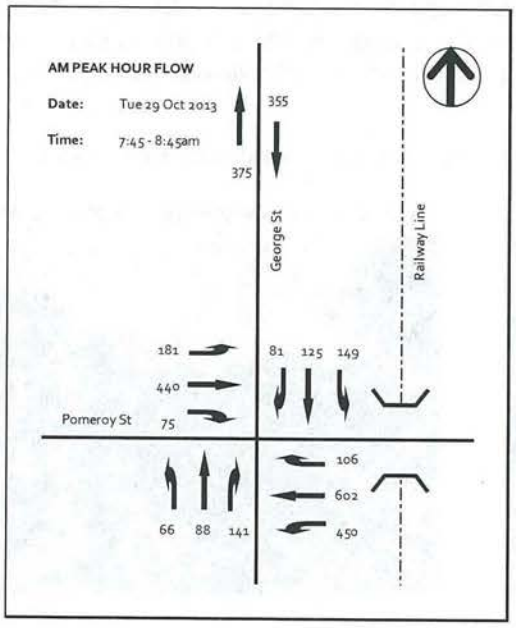


Figure 2.6: PM Peak Hour Traffic Volumes

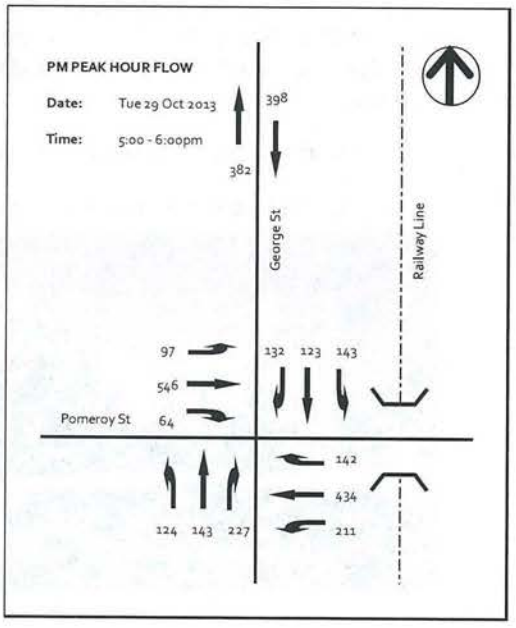


Figure 2.7: Weekday Average Daily Traffic Volumes – George Street (North of Pomeroy Street)

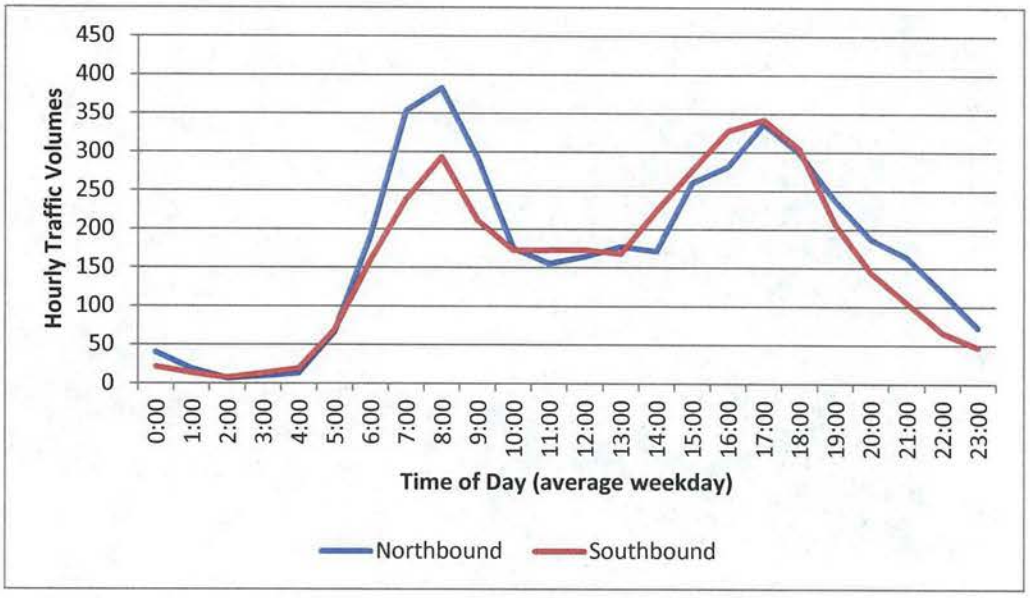


Figure 2.7 indicates that George Street carries greater northbound volumes during the AM peak hour and greater southbound movements during the PM peak hour. These northbound (in)/ southbound (out) splits are more reflective of movements associated with non-residential land uses than residential movements. As such, it can be concluded that there is significant traffic generation from non-residential land uses within the study area. This is potentially made up of a combination of the industrial lands, construction workers associated with the North Strathfield Rail Underpass project and train commuters parking at Concord West Station. In this regard, Table 2.1 has been prepared to provide a summary of the anticipated residential, Westpac Data Centre (based on surveys) and non-residential traffic on George Street.

Table 2.1: Two-way Traffic Volumes – George Street

Anticipated Traffic Type	AM Peak Hour		PM Peak Hour	
	Northbound (IN)	Southbound (OUT)	Northbound (IN)	Southbound (OUT)
Existing Residential	126 [1]	294	337	144 [1]
Westpac Data Centre	140	NA	NA	140
Non-Residential	117	NA	NA	58
TOTAL	**383**	**294**	**337**	**342**

[1] Based on an in/out split of 30:70 (AM) and 70:30 (PM).

Table 2.1 indicates that a significant proportion of northbound traffic during the AM peak hour and southbound traffic during the PM peak hour is non-residential traffic.

2.4 Crash History

The recorded crash history for the George Street/ Pomeroy Street intersection and surrounds for the most recent 5 year period (2008 to 2012) has been sourced from RMS and indicates that there were 4 crashes at the intersection and 4 further crashes the approaches during the 5 year period. The RMS crash data is presented in Figure 2.8.

Figure 2.8: Recorded Crash History (2008 to 2012)

2.5 Intersection Operation

2.5.1 George Street/ Pomeroy Street Intersection

The operation of the George Street/ Pomeroy Street intersection within the study area has been assessed using SIDRA INTERSECTION[3], a computer based modelling package which calculates intersection performance.

The commonly used measure of intersection performance, as defined by the RMS, is vehicle delay. SIDRA INTERSECTION determines the average delay that vehicles encounter and provides a measure of the level of service.

Table 2.2 shows the criteria that SIDRA INTERSECTION adopts in assessing the level of service.

[3] Program used under license from Akcelik & Associates Pty Ltd.

Table 2.2: SIDRA INTERSECTION Level of Service Criteria

Level of Service (LOS)	Average Delay per vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way & Stop Sign
A	Less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Near capacity	Near capacity, accident study required
E	57 to 70	At capacity, at signals incidents will cause excessive delays	At capacity, requires other control mode
F	Greater than 70	Extra capacity required	Extreme delay, major treatment required

Table 2.3 presents a summary of the existing operation of the intersection, with full results presented in Appendix B of this report.

Table 2.3: George Street / Pomeroy Street Existing Operating Conditions

Peak	Leg	DOS	Average Delay (sec)	95th Percentile Queue (m)	Level of Service (LOS)
AM	George Street (South)	0.69	39	43	D
	Pomeroy Street (East)	0.61	13	102	B
	George Street (North)	0.66	32	59	C
	Pomeroy Street (West)	0.89	34	184	C
PM	George Street (South)	0.88	47	100	D
	Pomeroy Street (East)	0.60	18	91	B
	George Street (North)	0.83	43	103	D
	Pomeroy Street (West)	0.90	41	260	D

On the basis of the above assessment and on-site observations, it is evident that the intersection of George Street/ Pomeroy Street currently experiences notable queuing and delays during both the AM and PM peak periods, however still generally operates within acceptable limits (i.e. LOS D or better).

2.5.2 Pomeroy Street/ Queen Street/ Beronga Street

The Pomeroy Street/ Queen Street/ Beronga Street intersection is controlled by an irregular shaped roundabout. At the time of the traffic surveys, there were partial road closures at the intersection as a result of the freight line works.

Given the irregular shape of the roundabout and the partial road closures during the traffic surveys, it is difficult to accurately model the intersection using traditional modelling tools such as SIDRA INTERSECTION. On this basis, the intersection has not been modelled as part of this study.

Notwithstanding, the dominant movements through the intersection are eastbound and westbound through movements, with only localised movements observed to the side streets (Queen Street). In effect, the intersection operates in a manner similar to two separate give-way intersections, with the east-west movements having priority.

Having regard for the above, the intersection was observed to operate satisfactorily during peak periods, with manageable queues and delays observed.

2.5.3 Parramatta Road/ George Street

At its southern end, George Street terminates at Parramatta Road with a signalised T-intersection. Formal traffic surveys have not been undertaken at this intersection as part of this study.

However, observations of this intersection indicate that there is significant congestion during peak periods, consistent with the broader Parramatta Road corridor. As a result, significant queuing and delays are experienced, particularly on George Street.

The majority of traffic on George Street at this intersection is understood to originate from the Bakehouse Quarter precinct, particularly during the PM peak hour when the retail and entertainment uses peak.

2.6 Car Parking

Unrestricted parallel on-street car parking is generally provided on both sides of each of the roads within the study area. It is noted that all car parking within the study area is subject to 2P Special Event parking restrictions. These restrictions are associated with larger events being held at the Sydney Olympic Park precinct to the west of the study area. Permit holders are exempt from the 2P restriction, noting that permits are only available for residents of the precinct.

Whilst not strictly surveyed, observations indicate that car parking demands within the study area are moderate, with increased occupancy observed in the vicinity of the Concord West Railway Station. These demands are understood to be generated by commuter car parking associated with the station, overflow employee parking from the Westpac Data Centre and construction workers associated with the Northern Sydney Freight Corridor (North Strathfield Underpass).

2.7 Public Transport

The study area has good accessibility to surrounding public transport facilities. The Concord West and North Strathfield Railway Stations are located in reasonable walking distance of the study area. Both stations are located on the T1 North Shore, Northern and Western Line, with services provided to Hornsby and Berowra via Central and to Epping. Services generally operate at 15 and 30 minute frequencies for the weekday and weekend periods, respectively.

In addition to the rail services, a number of buses operate along Concord Road to the east of the study area, as follows:

- M41: Hurstville to Macquarie Park
- 458: Burwood to Ryde via Rhodes Shopping Centre
- 459: Strathfield Station to Macquarie University

Pedestrian connections across the railway line to Concord Road are provided at Station Avenue, Victoria Avenue and Pomeroy Street.

An overview of the existing public transport network is provided in Figure 2.9.