

Concord West Precinct Master Plan

Urban Design Study



Prepared for

Canada Bay Council

27 May 2014 ■ 14045



DRAFT

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Canada Bay Council

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|-------------|-------------|--------------------------|--------------|--------------------------|
| 2 | 27 May 2014 | Draft Master Plan Report | BG | Concord West Master Plan |

Introduction

About this Study

This master plan has been prepared by JBA on behalf on Canada Bay Council (Council). It relates to land on the western side of the Northern Rail Line at Concord West. While the master plan only investigates the subject sites and considers these sites in the context of the study area, it is focused on land currently zoned IN1, General Industrial, which has been identified for redevelopment to residential uses by the City of Canada Bay Council. The Study Area is shown in Figure 1.

The aim of the study is to create new planning controls to guide the future development of sites zoned for industrial use within the study area. The objectives of the study are to:

- 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; and
- undertake the study with Council, community and stakeholder engagement.

Study Area

The Study Area is bound by Liberty Grove to the north, Pomeroy Street to the south, the main Northern Railway Line to the east and Powell’s Creek Reserve to the west. The area is characterised by a variety of built form and uses, including a mix of dwelling houses, town houses, apartment buildings and industrial uses. A new primary school is currently being built at 64-66 Victoria Avenue. The Precinct is effectively self-contained, with George Street forming the only vehicular access point to the surrounding road network at the southern end of the study area.

East of the Northern Railway Line is the Concord West centre, which contains a small range of retail and commercial uses. To the south of the precinct is the Bakehouse Quarter, which is the main centre for the local area. West of the precinct are Powell’s Creek Reserve, Homebush Bay Drive and Bicentennial Park.

The Project Team

- **JBA:** Urban Design, Planning & Community Engagement
- **GTA Consultants:** Traffic & Transport



FIGURE 1 - Study Area Location Plan

Planning Context

Draft West Central Subregional Strategy

The former Metropolitan Plan for Sydney included the Study Area in the Inner West Subregion of Sydney. The Government prepared the draft Inner West Subregional Strategy to manage population growth in this subregion, and set a target of 30,000 additional dwellings to 2031. Of this, 10,000 are to be provided in Canada Bay LGA.

While these targets will be reviewed as part of the preparation of new Subregional Strategies informed by the draft Metropolitan Strategy, in the interim these figures provide a useful reference for planning. To accommodate this growth, the strategy sets the following key directions for housing:

- focus housing in and around existing strategic and local centres;
- improve housing affordability; and
- achieve a mix of zones and dwelling forms.



FIGURE 2 - Former Subregional Plan

Subject Sites

Industrial Sites

The focus of this study are the industrial sites identified in Figure 2. The sites are currently 2-3 storeys in height. Some sites are vacant or under utilised.

The sites are being considered by Council for rezoning from IN1 - General Industrial to R3 - Medium Density Residential with the exception of Site 4 (Westpac) to be rezoned to B7 - Business Park, recommendations based on the outcome of the Socio Economic Impact Study undertaken by Hill PDA in June 2013.

Site 5 176 - 184 George Street



Site 6 2 - 10 Rothwell Avenue



Site 7 25 George Street



FIGURE 3 - Industrial Sites Plan

Site 1 7 Concord Avenue



Site 2 202 - 210 George Street



Site 3 3 King Street



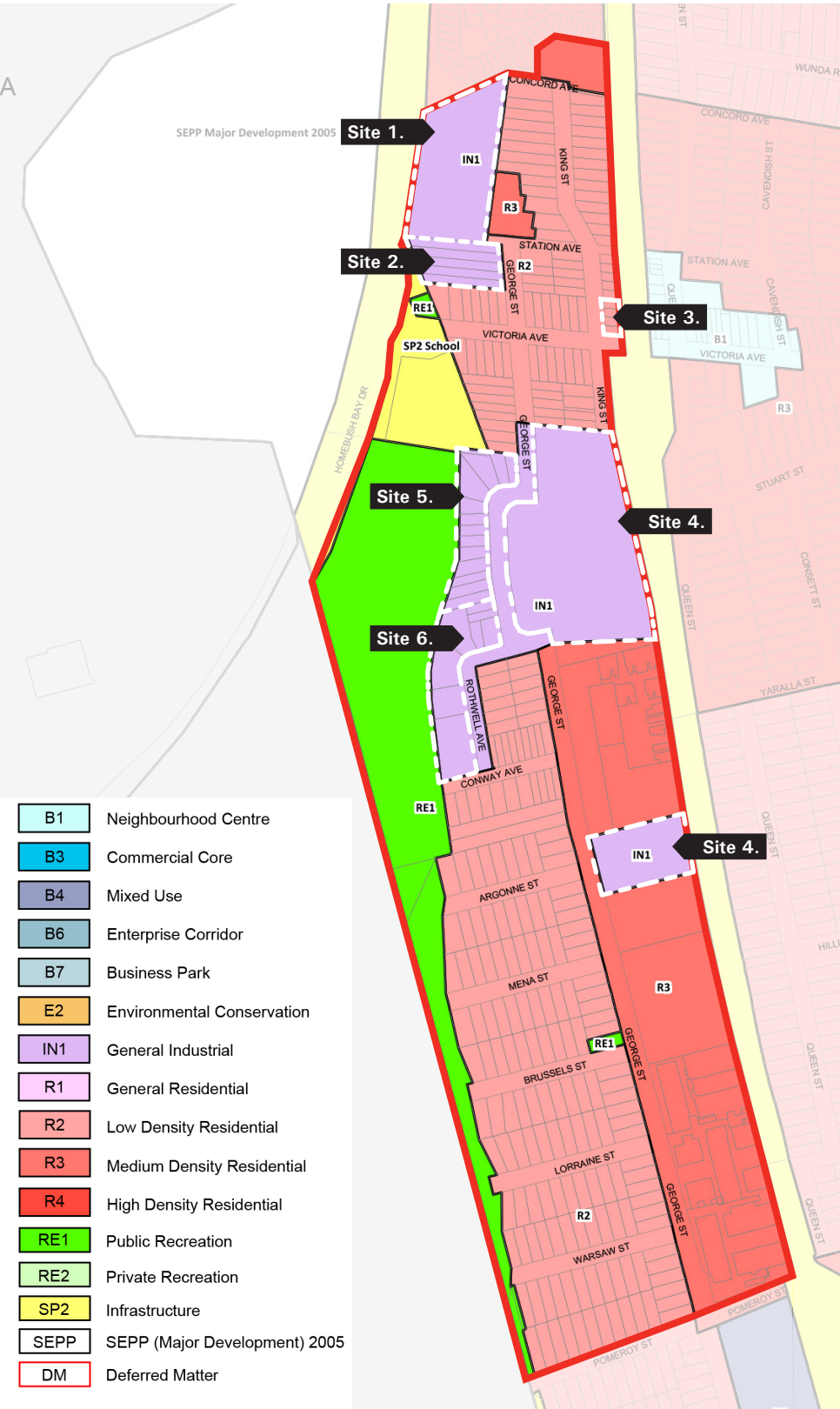
Site 4 1 King Street (Westpac)



LEP Planning Controls - existing

Zoning

The study sites are zoned IN1 (General Industrial) with the exception of Site 3 (5 King Street) which is zoned R2 (Low Density Residential).



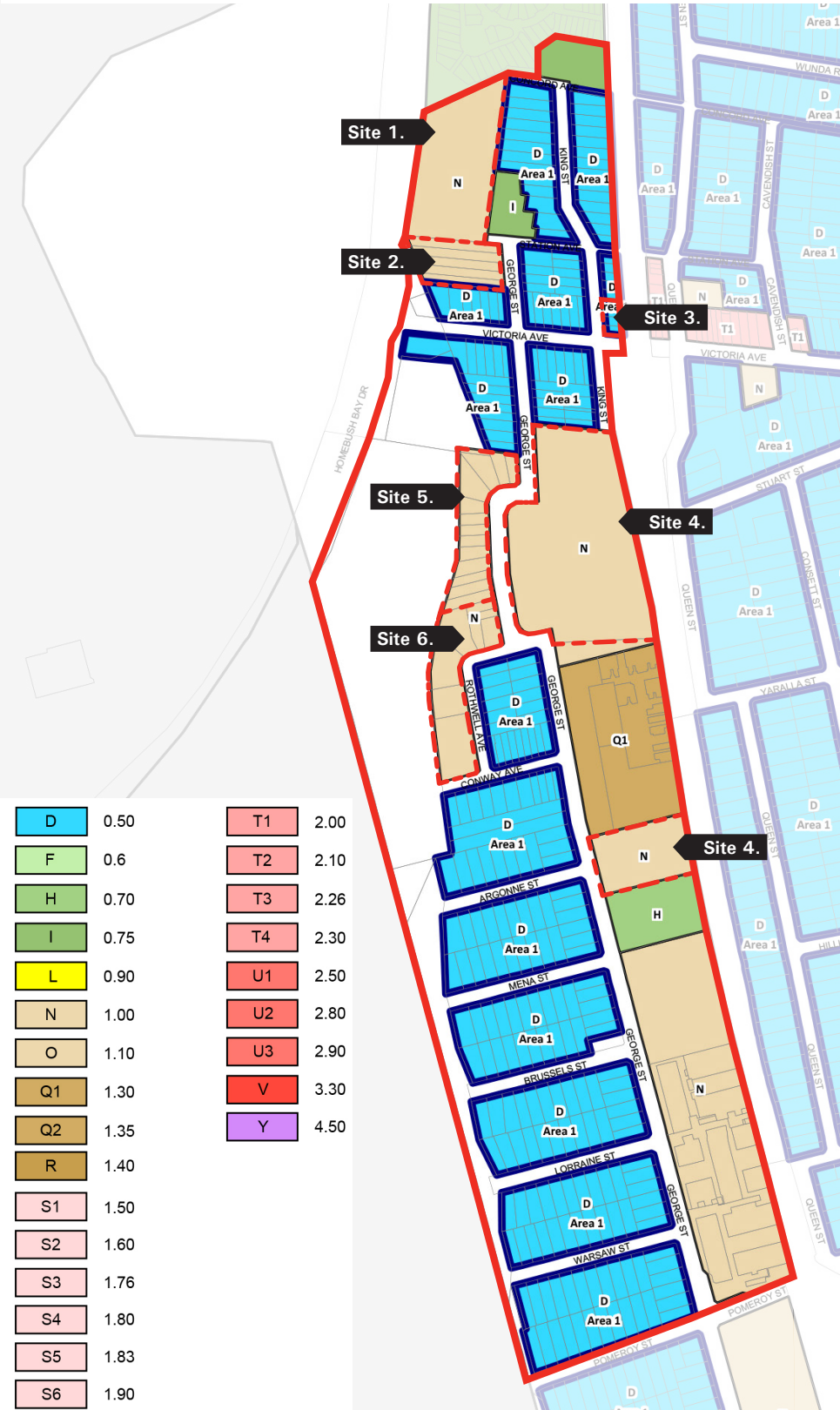
Height of Buildings

The study sites have a height control of 12m with the exception of Site 3 (5 King Street) which has a height control of 8.5m.



Floor Space Ratio (FSR)

The study sites have a 1:1 FSR with the exception of Site 3 (5 King Street) which has an FSR of 0.5:1.



Site Context

Key Observations:

- The land use split within the study area is approximately 25% medium density residential, 50% low density residential and 25% industrial
- The portion of the study area from Conway Avenue north seems more suitable for higher density due to smaller blocks of existing low scale residential, the mix of industrial sites and the proximity to the rail station
- The odd road geometry edging the Westpac Data Centre offer logical points for new street connections into the site if developed
- The physical area and geometry of the industrial sites pose challenges to the redevelopment of the sites

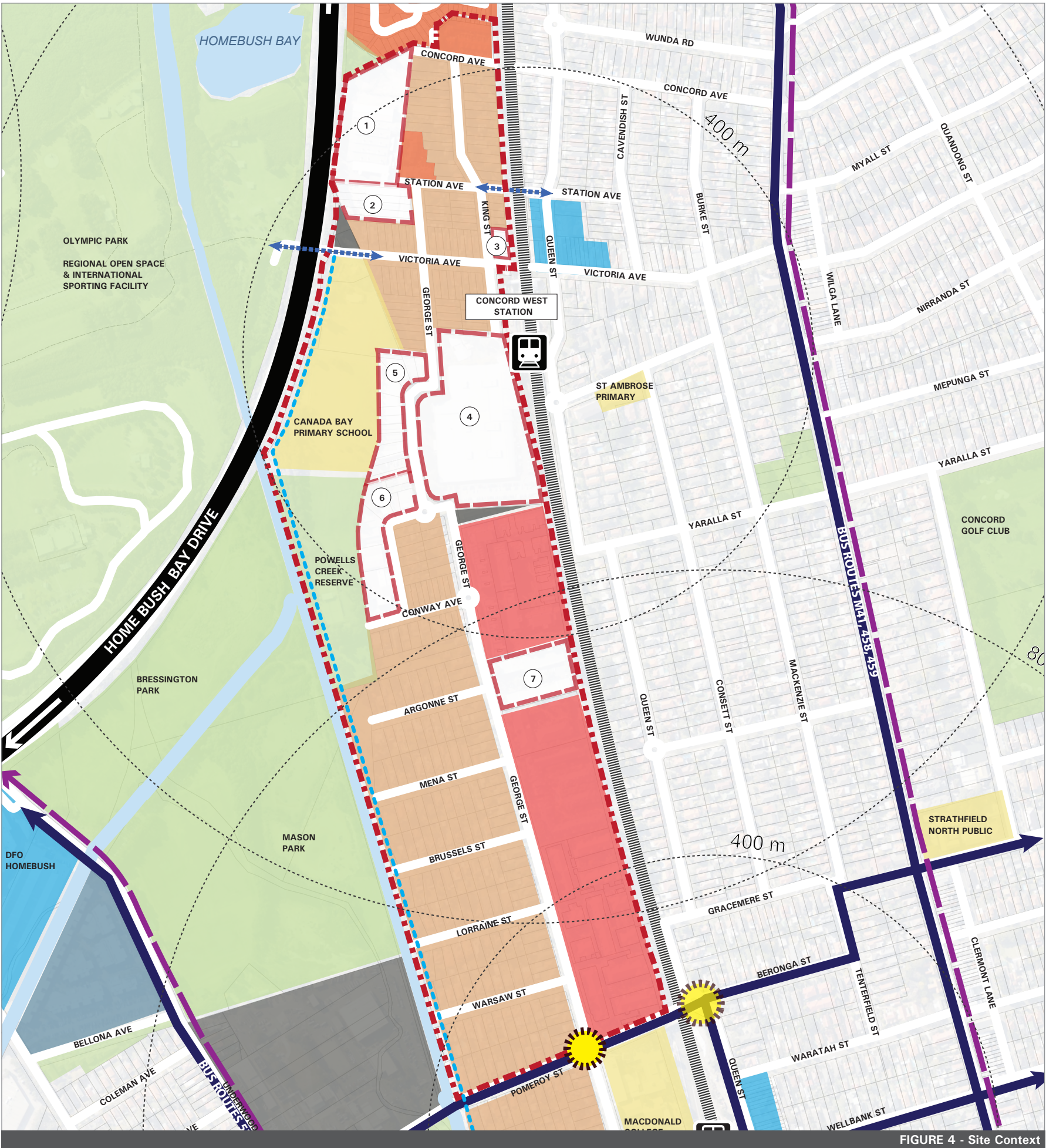
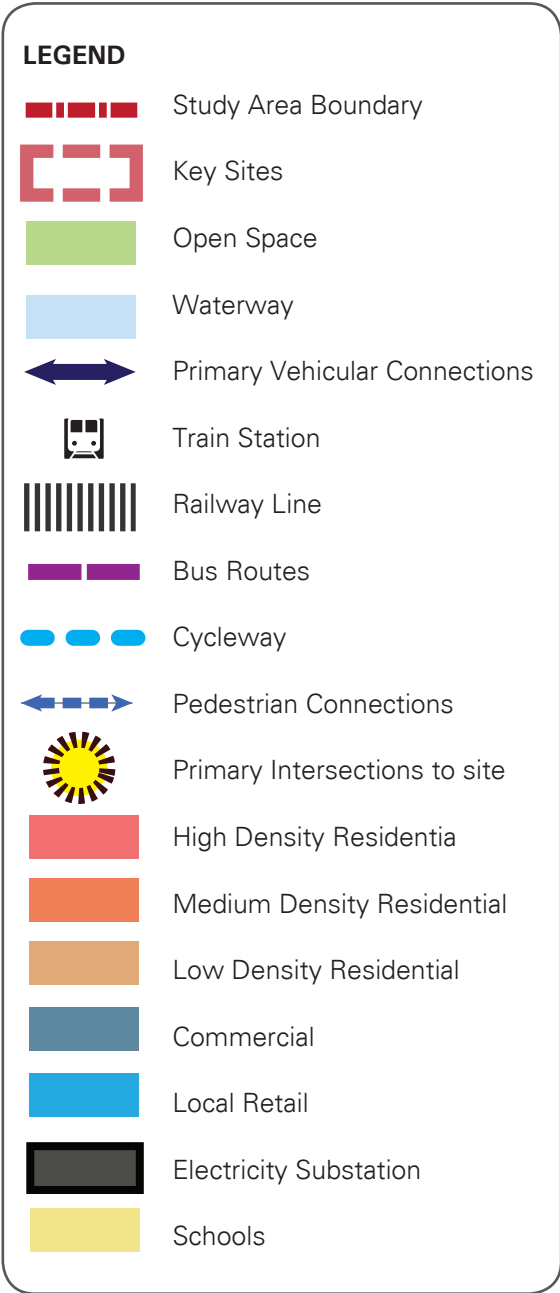
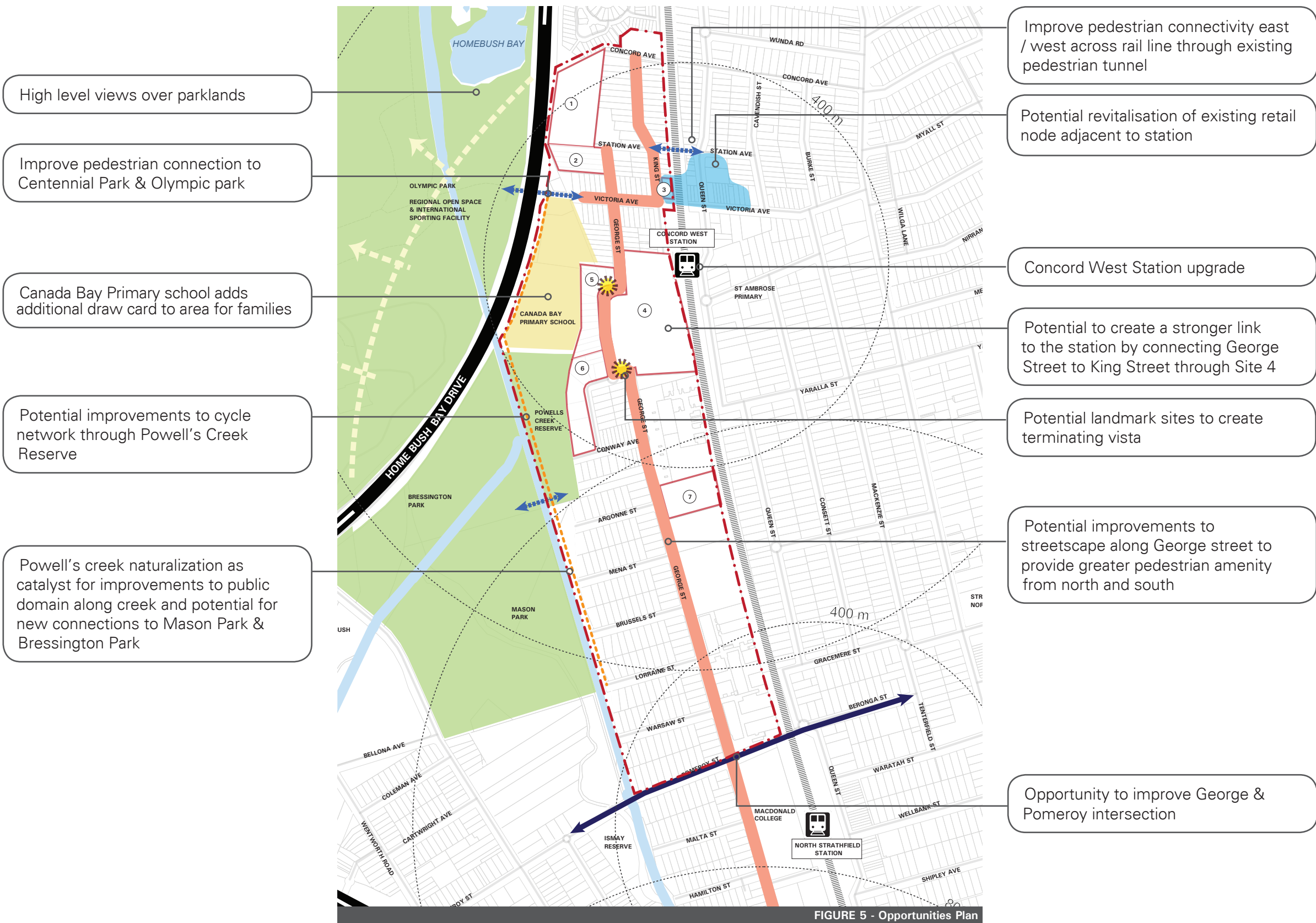


FIGURE 4 - Site Context

Opportunities

Key Opportunities:

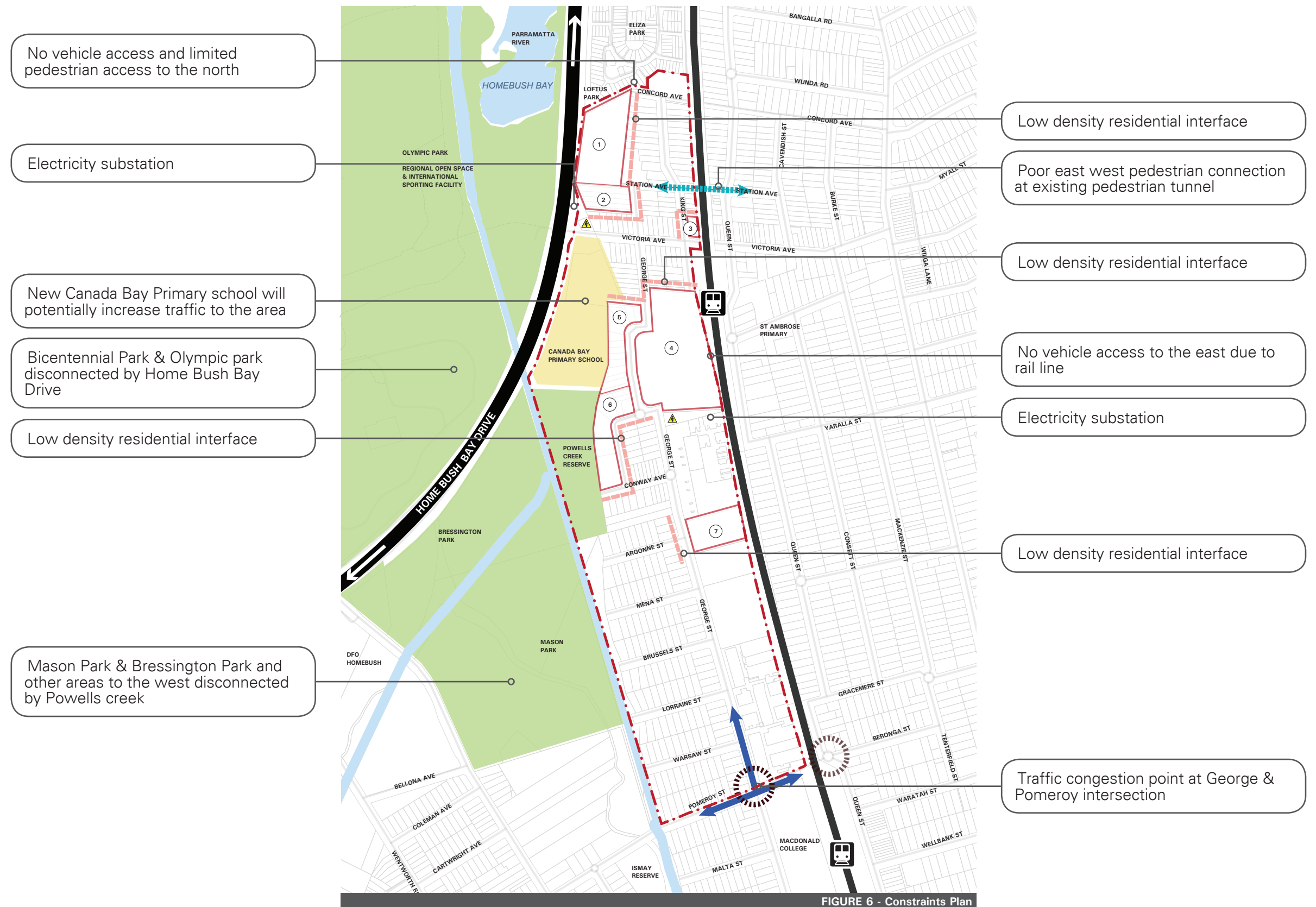
- **Proximity to Mass Transportation** – They study area is well serviced by the Concord West and North Strathfield train stations.
- **Recreation & Open Space** – The study area is adjacent to nationally significant parks, open space and recreational opportunities. Powell’s Creek Reserve within the study area offers both passive and active recreational opportunities including playing fields and tennis facilities.
- **Shopping & Entertainment** – The village of Concord West, shops on Concord Road, Rhodes shopping centre and the entertainment precinct of the Bakehouse Quarter offer a wide variety of shopping and entertainment opportunities.
- **Ownership** – The industrial sites are generally under single ownerships or partnerships. This will facilitate new development in a more efficient way.



Constraints

Key Constraints:

- **Disconnected Street Network** – The study area is disconnected from the surrounding street network funnelling all vehicular traffic through one intersection at George and Pomeroy Streets and reducing walkability.
- **No Change / Residential Interface** – The master plan is to assume the existing detached residential within the study area will not up zone in the future. The industrial sites are intermixed with existing 1-2 storey low scale residential dwellings creating difficult interface issues between low density and medium density building forms, especially in regards to solar access and privacy.
- **Poor connectivity & surveillance of existing open space** – The existing open space within the study area is not address by built form and have few pedestrian links which isolates Powell's Creek Reserve from the neighbourhood and creates a safety issue.
- **Self Containment** – The study area lacks significant viable retail and commercial uses increasing car dependence and reducing walkability.
- **Flooding / Overland Flow Risk** – Areas of the study area are considered to be at risk of flooding and require investigation through the preparation of an area wide flood study.



Study Area Character

Land Use Types



Typical residential house



Strathview apartments on George street



Industrial uses mixed into the neighbourhood

Retail & Commercial



Ground floor convenience retail along George street



Concord West Village - Retail along Queen street



Bakehouse Quarter

Traffic & Transport



Concord West Station



Pomeroy & George Street intersection



George Street

Recreation & Public Open Space



Bicentennial & Olympic Park



Proposed playing fields at the Canada Bay Primary School



Powell's Creek Reserve tennis courts

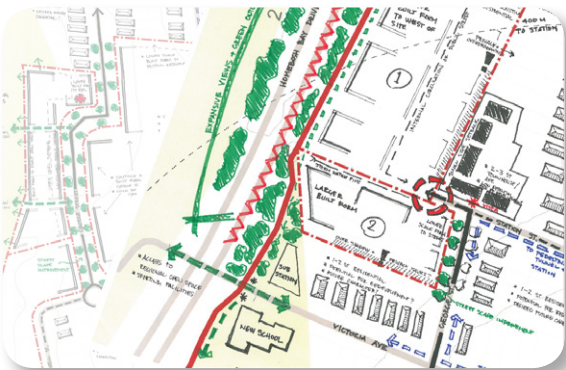
Urban Design Study Methodology

The development of the master plan was conducted in an open and transparent way involving the local community, landowners and Council. The design process included inputs from the community and stakeholders as well as a detailed traffic analysis of the study area to develop sound development principles to manage the potential impacts on the local community and to determine the development capacity of each site.

The design process...

Site Analysis

Site by site investigation and analysis to determine the potential impacts to neighbouring properties & how each site could contribute in reconnecting the neighbourhood.



Engagement (Round 1)

Informed the local community and stakeholders of the project objectives and documented their issues and concerns to feed into the built form testing.



Built Form Testing

Development of the master plan principles, proposed new connections, tested 3D building envelopes and investigated solar access & privacy issues.



Engagement (Round 2)

Presented the draft master plan to the community and stakeholders. Feedback from both groups were used to refine the master plan and ensure concerns were addressed.



Master Plan

Revised the master plan based on the community and stakeholder feedback. The final plan, yield and controls were then developed to deliver the vision for the study area industrial sites.



Engagement Strategy

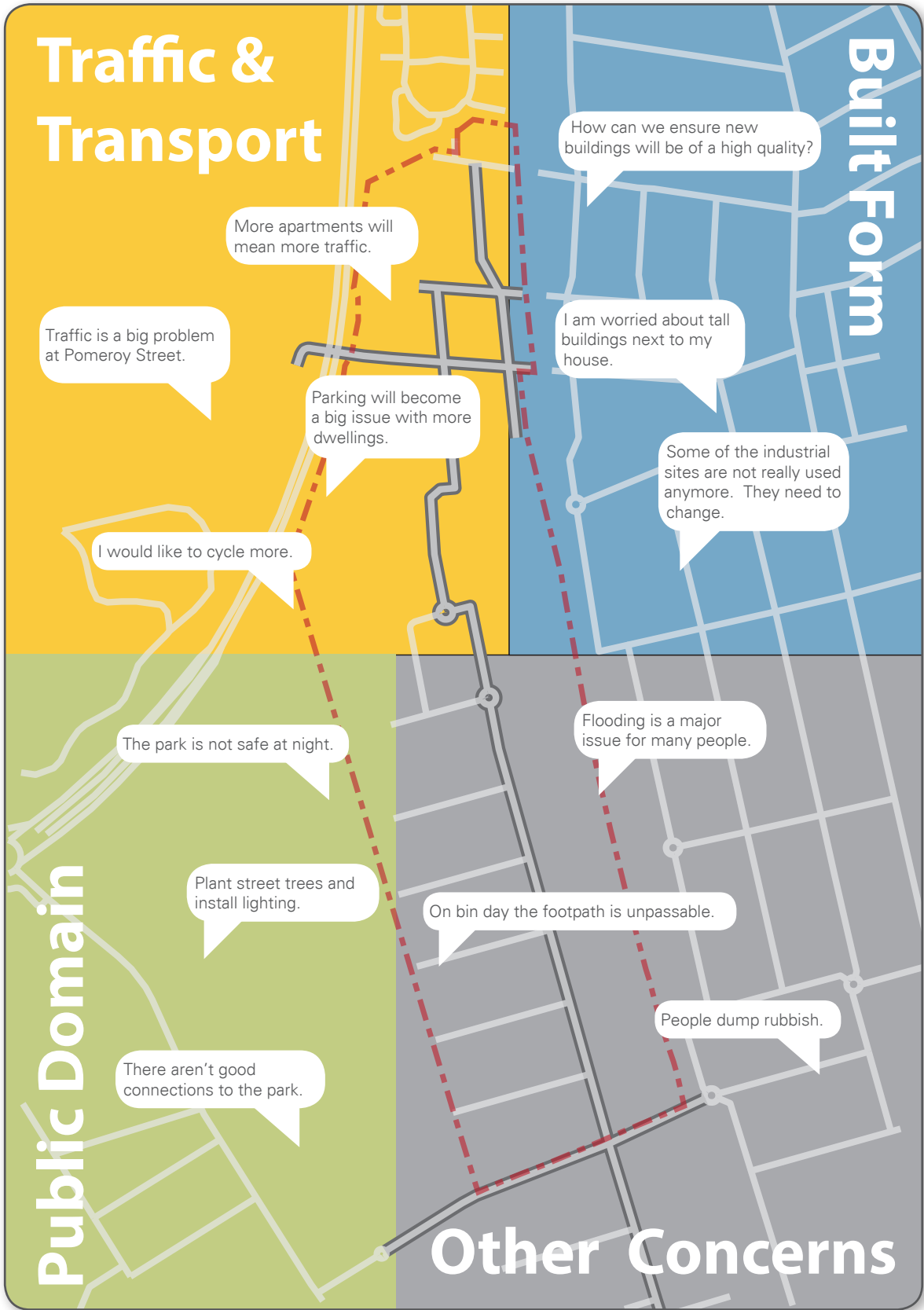
Throughout the master planning process local community and stakeholders' views, ideas and concerns about the future of the area have been woven into Concord West master plan and its outcomes. The engagement task set out to inform and consult with neighbours, stakeholders, local businesses, workers and other groups through workshops and online discussions as well as provide updates on the master plan as it evolved.

Methodology

The engagement strategy was designed with the following principles in mind:

- Ensure there is broad awareness of the project so that the community and stakeholders know that the Plan is being prepared and how to provide informed feedback.
- Motivate community and stakeholders engage.
- Use local and social media to achieve this and to keep the community informed of progress.
- Build broad community and stakeholder support for the project outcomes.
- Keep all information as concise and in plain English as possible without compromising integrity.
- Provide communication formats and channels suitable to the widest range of people.
- Make information available in a timely manner.
- Ensure feedback from stakeholders flows through to the master plan during development and future implementation.

Overall, we reached out to approximately 9860 community members and received 177 individual pieces of feedback



Identifying the Community

The following groups were targeted for involvement in the master planning process:

- Local residents within the study area including property owners and tenants, schools, local business owners and operators as well as the wider community.
- Landowners of the seven industrial sites in Concord West.
- City of Canada Bay Councillors.

Getting the Word Out

Work to reach out to the community started in November 2013 and continued until April 2014 as the plan developed. Messaging to spark and then continue conversations over the six month period included the following activities:

- Post card delivery to 1600 homes in the study area.
- Post card sharing with 400 passengers at Concord West railway station.
- Social media notices across Council's Facebook, Twitter and e-news channels.
- Two stakeholder workshops with landowners to gather feedback for the master plan.
- Two initial community workshops to gather feedback in three topic areas: built form, open space, traffic and transport.
- Follow up community workshop to present the final draft master plan for further feedback.
- Develop a microsite with information on the study area, team contact details, relevant web links, video of a community workshop and an online discussion space. The site received over 3500 views between Nov 2013 and April 2014.
- Articles within the Inner West Courier Mayoral column in Nov 2013, Jan 2014 and March 2014.

Concerns Addressed in the Master Plan

The master plan evolved with consideration of the concerns and ideas raised around four main categories being Built Form, Traffic and Transport, Public Domain and Other Concerns. As a result of the engagement work the master plan outlines the following possible solutions:

- Green connections through sites to open spaces and public transport.
- A mix of building heights stepped back from neighbouring homes.
- Controls to ensure future buildings respond to the local area context.
- Initiatives to promote walking, cycling and public transport use and discourage car use.
- Public domain initiatives and improvements including street trees, lighting and footpaths.
- Other concerns for Council to investigate further such as a resident parking scheme.



Traffic & Transport - Analysis

Background

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.

Assessment

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.

Assumptions

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. Should the Westpac Data Centre also be developed (noting that it does not form part of the study area for this site), the peak hour traffic associated with some 1,430 additional dwellings (i.e. 645 further dwellings) could be accommodated within the rezoned lands. Table E1 provides an overview of the anticipated future traffic volumes on George Street following the rezoning of the industrial lands.

Results

The table indicates that ultimate traffic volumes on George Street are anticipated to increase by approximately 630 and 280 vehicles during the AM and PM peak periods. During the AM peak hour the additional traffic generated by the rezoned lands represents 43% of the additional George Street traffic volumes, with the primary school accounting for 57% 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 than 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.

| TABLE E1 - Future George Street Traffic Volumes (North of Pomeroy) | | |
|--|-------------------|--------------|
| Traffic Source | Vehicles Per Hour | |
| | AM Peak Hour | PM Peak Hour |
| Existing Traffic Volumes | 730 | 780 |
| Primary School | +356 | [1] |
| Rezoned Lands (ex Westpac Site) | +228 | +228 |
| Total | 1314 | 1008 |

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



Concord West Precinct Master Plan



Concord West Master Plan

A Balanced Approach

The primary purpose of this master plan is to develop a coordinated planning approach to the seven industrial sites. The objective is to integrate new medium density apartment forms within a neighbourhood that is predominantly 1-2 storey residential in scale. To achieve a well-mannered integration of new development compromises must be accepted to develop a balanced approach that both addresses the needs of the local community as well as the objectives of the individual site owners.

In order to achieve a balanced development approach, the master plan acknowledges the competing forces that provide a basis for both greater density as well as reasoning to keep new development lower scale. These forces fall into three broad categories and provide the conceptual basis to which the master plan principles address in greater detail.

- **Regional Opportunities / Local Constraints** – The close proximity to two rail stations and high quality recreational open space provide a strong justification to maximise the development potential of the industrial sites and for increased heights. The study area, however, is also highly constrained by a disconnected street network that funnels all vehicular traffic through one entry / exit point at the intersection of George and Pomeroy Streets.

The vehicular capacity of this intersection is a major constraint to development within the study area. Also the lack of nearby, walkable retail and commercial opportunities to service the day to day needs of the local community limits the ability to reduce car dependency regardless of proximity to mass transport.

- **New Development / Existing Community** – Redevelopment of the industrial sites must be economically feasible or no change will occur. As the existing industrial uses are becoming less viable in this location (as well as in other inner west suburbs) and moving to more suitable locations medium density residential is a clear alternative. The industrial sites are scattered throughout the study area which is predominantly 1-2 storey detached residential in character. Thus, the interface between new and established development must be carefully managed and the principles consistently applied.

- **Development Site / Development Site** – The overall constraints of the study area, especially traffic generation, limit the development potential of the industrial sites. The distribution of the development capacity of the study area must be applied consistently through built form principles that address the concerns of the existing community while not arbitrary giving advantage to one site over another. This ensures that no one site can over develop at the expense of the other sites and preserves this potential regardless of the timing of redevelopment.

Any variation of height and FSR controls that is evident between individual sites is reflective of the consistent application of the master plan principles. It is not reflective of what could be achieved based on a hypothetical maximum calculated through the application of generalised best practice planning and urban design controls on a site by site basis.

Master Plan Layout

The master plan is divided into three precincts to illustrate each area in greater detail. These detailed precincts follow full site area plans and controls so as to view the concepts in both a holistic way as well as in detail. The sites are divided into the following precincts:

North Precinct - page 18

- Site 1 7 Concord Avenue
- Site 2 202-210 George Street
- Site 3 3 King Street

Central Precinct - page 23

- Site 4 1 King Street (Westpac)
- Site 5 176 - 184 George Street

South Precinct - page 26

- Site 6 2 -10 Rothwell Avenue
- Site 7 25 George Street

LEGEND

Indicative Building Footprint

Upper Level Set Back

Public Open Space

Communal Open Space

5

Number of Storeys

Vehicle Access



FIGURE 7 - Concord West Master Plan - Precinct

Development Principles

To achieve a quality built form outcome that addresses the concerns of the local community, meets the needs of the landowners, creates a cohesive & unified place and establishes a consistent & balanced development approach, the following principles have been applied across the study area.

Primary Built Form Principles

- **Height** – the tallest buildings are to be located in areas where there will be no significant impacts (especially in regards to solar access and privacy) to existing low scale residential dwellings with a gradual transition in building height to step down to the boundary to existing properties.
- **Interface** – where new buildings are adjacent to or across from existing low scale residential dwellings a maximum height of 4 storeys will be applied. In certain specific circumstances the interface height may be less than 4 storeys to address a localised constraint or condition. Access points to underground car parking can also be utilised to provide further building separation between existing and new.
- **Front Setbacks** – In order to achieve a unified street character throughout the study area a 6m front setback to public streets has been applied to reflect existing residential setbacks. It is intended that the front setback will be used to promote individual ground level entries to apartments, gardens and additional landscaping and tree planting to soften the scale of the buildings. The exception is Site 3, 3 King Street, which ground floor retail is desirable.

- **Connections** – where indicated new through site pedestrian links are proposed to provide greater pedestrian connectivity to open space and the new Canada Bay Public School. New share ways and streets are proposed to provide vehicular & pedestrian links through sites to better connect the neighbourhood as a whole.

General Principles (not illustrated)

- **Passive Surveillance** – buildings must address all streets, share ways, footpaths, pedestrian links, parks and any other publicly accessible areas. This can be achieved through directly accessible building entries, the more numerous the better, balconies, ground level gardens, widows and a close physical relationship to the public areas.
- **Building Articulation** – where indicated upper level setbacks are applied to reduce the visual bulk of a building. Buildings should also not be excessively long without a modulated facade that visually breaks down the scale of the building.
- **State & Local Environmental Planning Policies** – in addition to the master plan new buildings will need to consider SEPP65 and the Canada Bay DCP for Residential Flat Buildings.

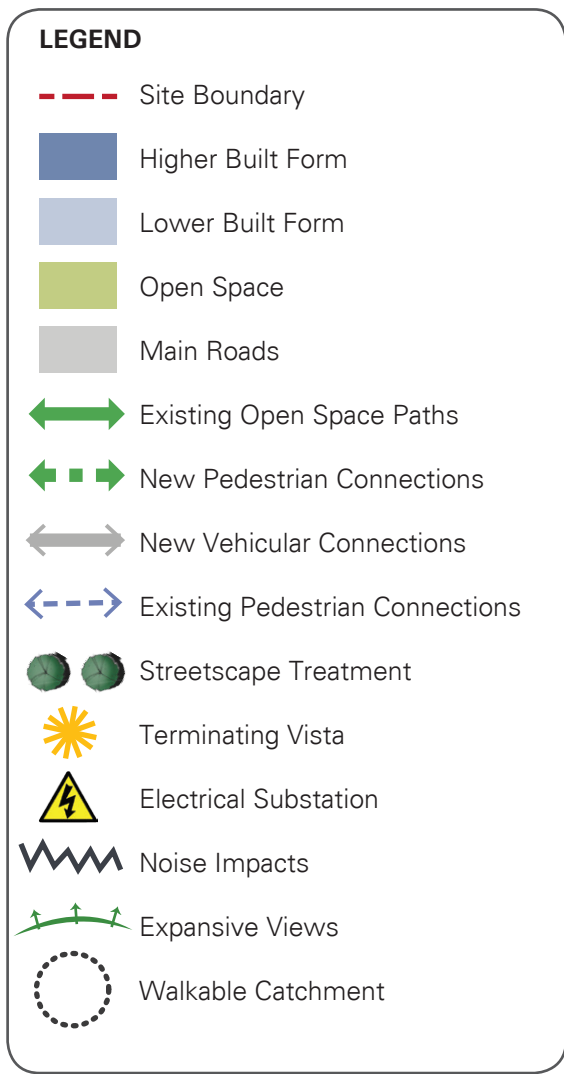


FIGURE 8 - Development Principles Plan

Built Form Controls

Height

The height controls establish the transition in scale from low to high. There are three height categories:

- **Interface Heights** - are located in areas adjacent to or across from existing 1-2 storey detached residential.
- **Transition Heights** - providing a logical progression in scale and building bulk.
- **Internal Heights** - are located in areas within larger sites in places and in orientations that will ensure minimal impacts to existing residential.

LEGEND

| | |
|--------------------|-----------------|
| Interface Heights | (2 - 4 storeys) |
| Transition Heights | (5 - 6 storeys) |
| Internal Heights | (7 - 8 storeys) |

Setbacks

The setback controls help to deliver the streetscape character, establish the through site pedestrian links and illustrate building separation between sites.

LEGEND

| |
|-------------------------------------|
| 3m Setback |
| 4m Rail Line Setback |
| 4m or consistent with 27 George St. |
| 6m Setback |
| 8m Setback |
| 9m Setback |
| 15m Setback |
| 2m Upper Floor Setback |
| 10m wide Pedestrian Link Zone |



FIGURE 9 - Building Heights Principles Plan



FIGURE 10 - Setback Plan

Public Domain

It is the public domain that holds and connects a place together. Parks, streets, footpaths, bike paths and pedestrian connections all play a role in stitching together the urban fabric that give a place an identity, provide places for recreation, interaction and promote a sense of community.

Strengthening the existing connections to parks and open space will create a stronger neighbourhood identity and will create a more cohesive feel for the study area as a whole.

The proposed public domain improvements fall into two categories:


- 1. **Site by Site Improvements** – are public domain improvements that can be implemented on a site by site basis as part of the redevelopment of each industrial site.
- 2. **Study Area Improvements** – are broader public domain improvements that will need to be implemented by Council in consultation with the local community and delivered through a range of funding methods including developer contributions.


The public domain plan illustrates the broad study area vision, concepts and specific site by site interventions. The plan identifies the primary origin / destination points to and from the study area. Also identified are special places within the study area: Station Square / Station Entry, Canada Bay Primary School and Powell’s Creek Reserve and tennis courts. The improvements listed below in conjunction with site by site improvements will link and strengthen the connections to and between these places. The following is a list of study area recommendations (only) to be investigated in greater detail by Council:


- **Station Square** – located at the eastern end of Victoria street. Station Square is envisioned as a small urban plaza that provides a meeting place and focal point for the neighbourhood near the station entry. The square will be activated through the redevelopment of 3 King Street (Site 3) into a mixed use building with a ground floor cafe or restaurant that can utilise the square for outdoor seating and dining. The square will offer a quite and shady environment where one can wait for the train, or to pick up / drop off friends and family on their way to / from work, school or the city.
- **George & King Street Spine** – these streets represent the primary north / south spine that connects the residents of Liberty Grove to the station and the study area to Pomeroy Street in the south. To achieve a cohesive feel and to promote walking and cycling these streets could be reconfigured to better accommodate pedestrians and be improved visually to enhance the character of the neighbourhood. This can be accomplished by:
 - Strengthen the street tree planting from Pomeroy Street to Liberty Grove to visually unify the neighbourhood.
 - Implement kerb build outs at intersections and other key pedestrian crossings to narrow the width of the street, slow traffic, define on-street parking and provide opportunities for rain gardens and low level landscaping.
 - Encourage cycling through the implementation of defined bike lanes
 - Ensure all footpaths are level and well constructed


- **Concord & Station Avenue Shareways** – these ‘avenues’ currently function primarily as laneways and are already low speed traffic environments. Through the use of landscape and paving material these streets can help stitch the northern portion of the study area together through the integration of Site 1.
- **King Street Extension** – if in the future the Westpac data centre should redevelop King Street should be extended south to join George Street at the Rothwell Avenue intersection. This connection will greatly improve the walkable catchment and permeability of the study area and provided greater access to the station as the existing site acts as a barrier to pedestrian and vehicular movements.


LEGEND


Streetscape Upgrade


Public Square


Shareway


New Footpath


New Pedestrian connection

Existing Landscape connection

New Local connection

Possible Cycle Path

Entry Point

Places (New & Existing)


George / King St Spine



FIGURE 11 - Public Domain Plan

Traffic & Transport - Recommendations

Recommendations

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 (greater than the LGA-wide requirement) are included in the relevant planning controls.

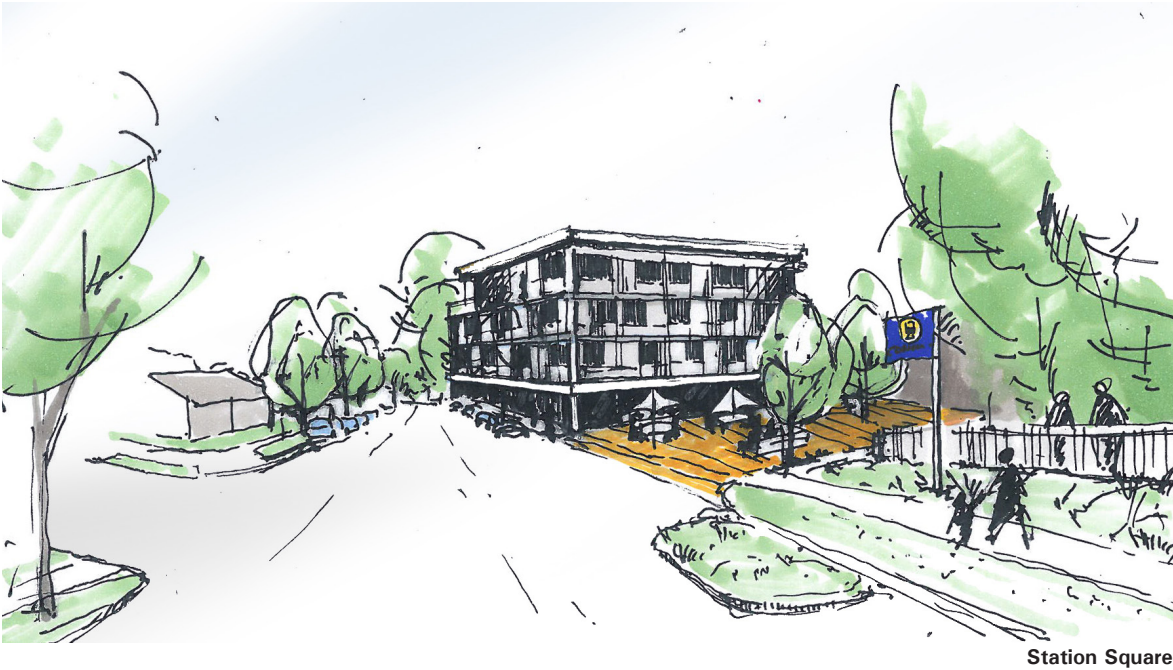
Other Improvements

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.



North Precinct (Sites 1-3) - Detailed Master Plan



Station Square

Key Features:

- 1. Integration of Site 1 into the existing neighbourhood fabric through a new north / south shareway connecting Concord Avenue to Station Avenue. This shareway to be publicly accessible inviting pedestrians and cyclists to move through the site to connect to the broader pedestrian network.
- 2. Station Avenue Extension to provide access to new pedestrian connection and vehicular access to adjacent buildings.
- 3. Establishment of a new north / south pedestrian and bicycle connection that will link the extended Station Avenue to Victoria Avenue.
- 4. Station Square - a new urban square terminating the eastern end of Victoria Avenue. The square will provide a focal point for the neighbourhood and the station by providing a space to meet.

LEGEND

Indicative Building Footprint

Upper Level Set Back

Public Open Space

Communal Open Space

5

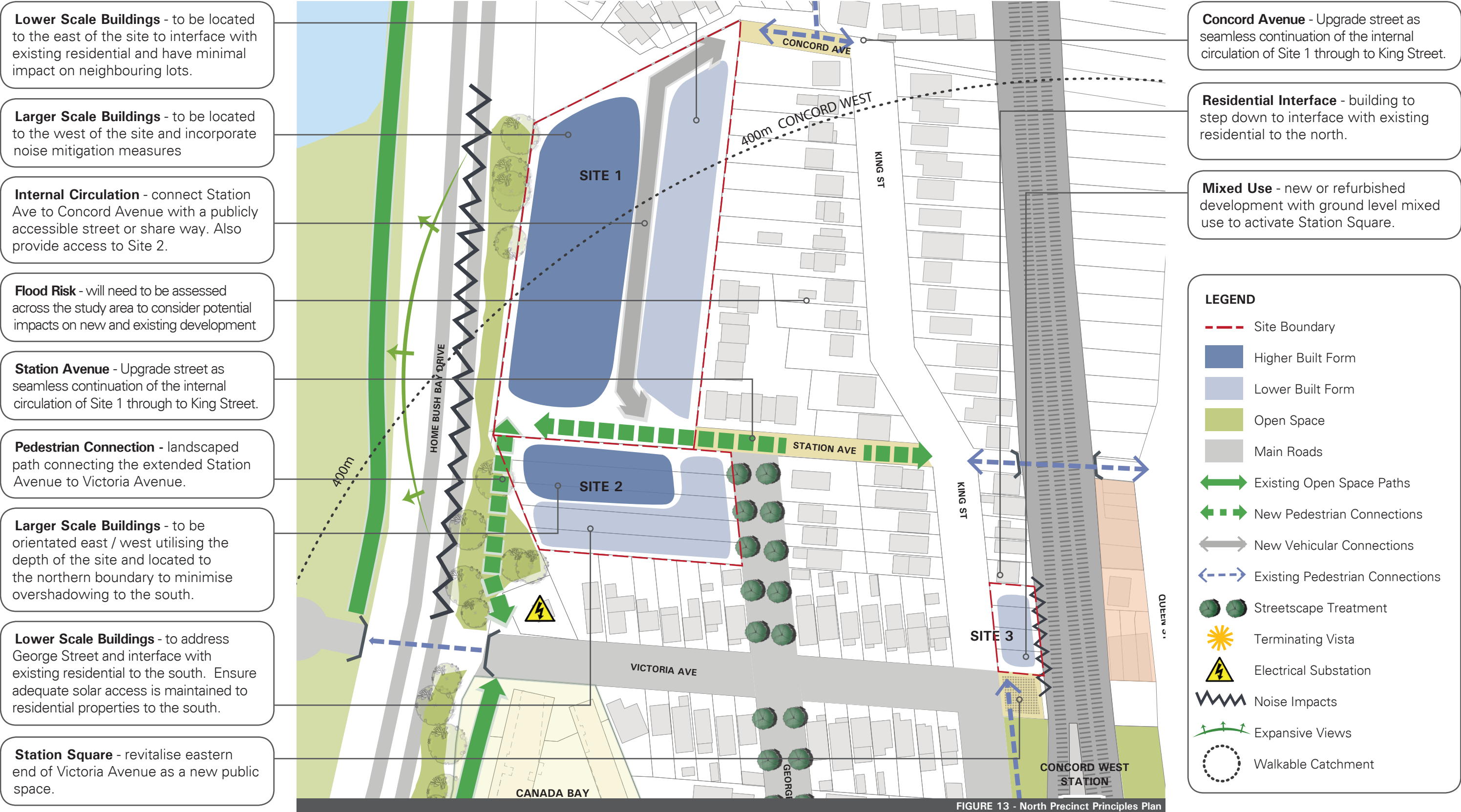
Number of Storeys

Vehicle Access



FIGURE 12 - North Precinct Master Plan

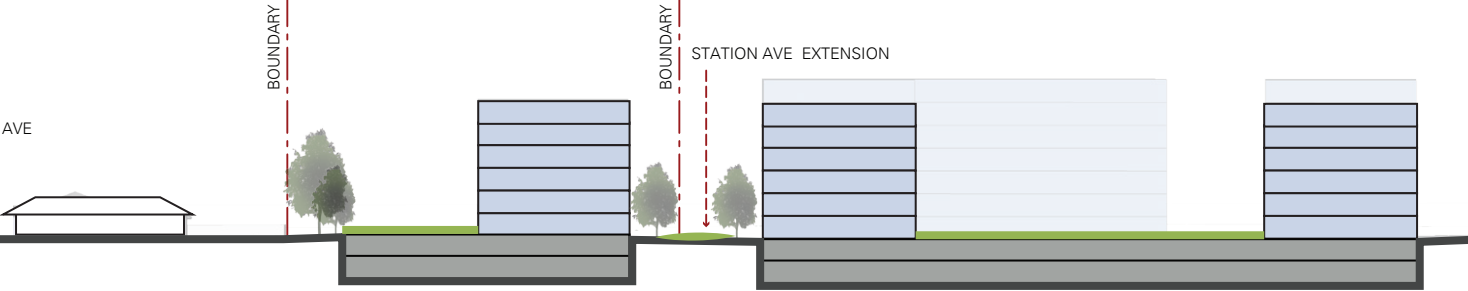
North Precinct (Sites 1-3) - Development Principles



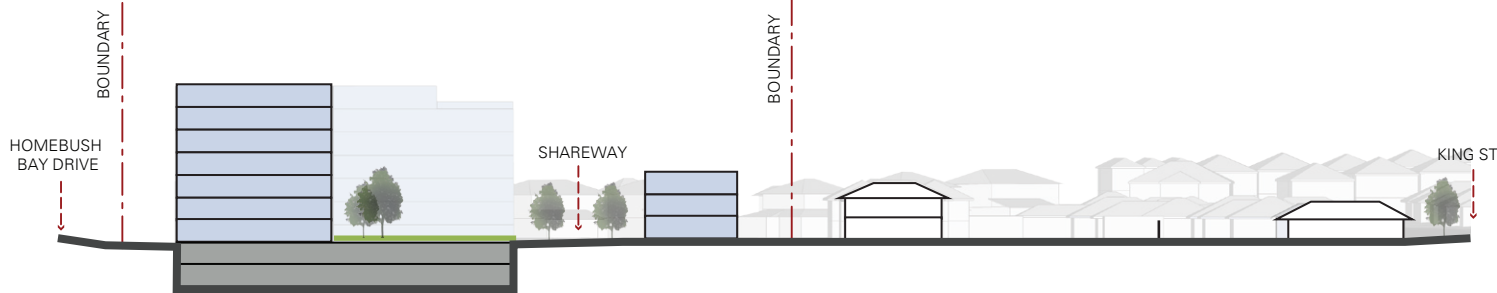
Site 1 - 3D Views & Sections



Section Key



Section AA Scale 1:1000

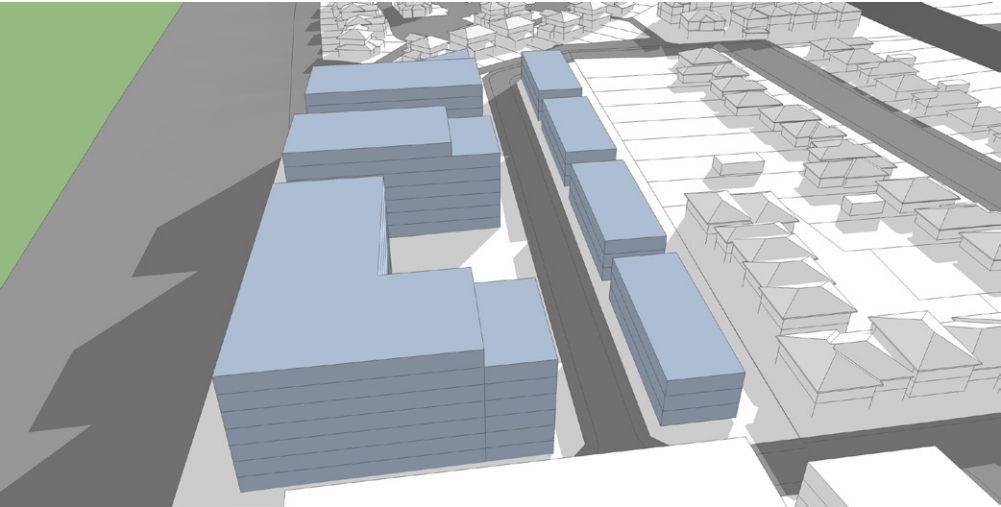


Section BB Scale 1:1000

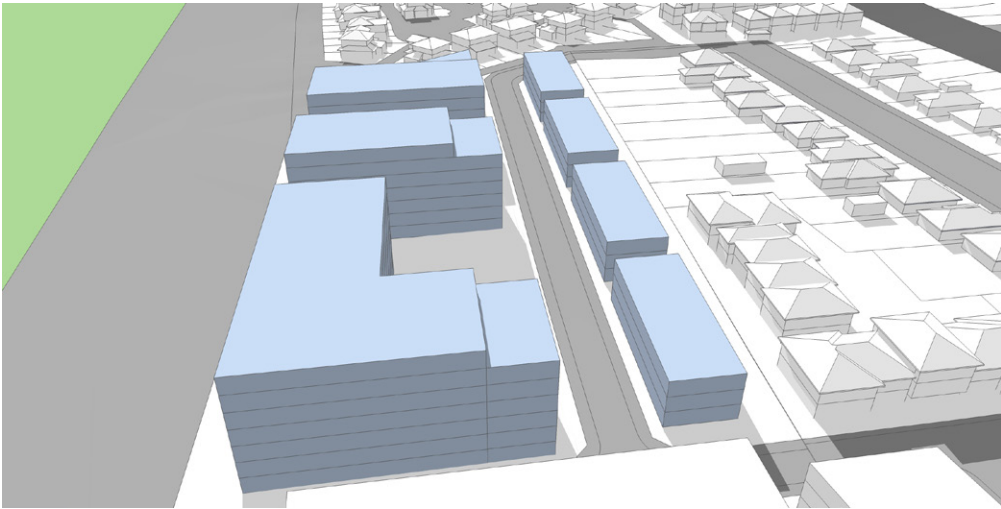
Sections

AA - Allow unobstructed views and access down Station Avenue from the pedestrian tunnel under the rail line to Homebush Bay Drive.

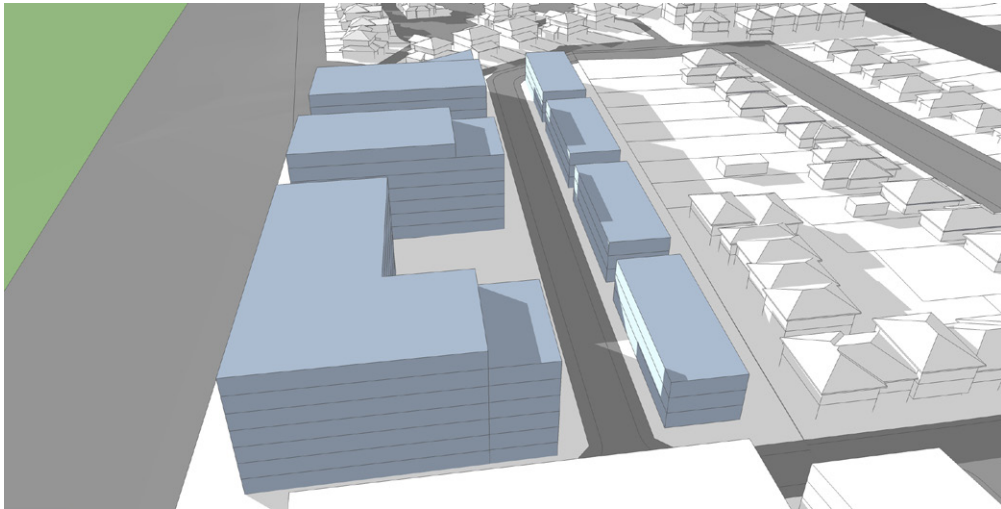
BB - Illustrates transition in building height from Homebush Bay Drive to the rear gardens of King Street properties.



Winter 9 am



Winter 12 noon



Winter 3 pm

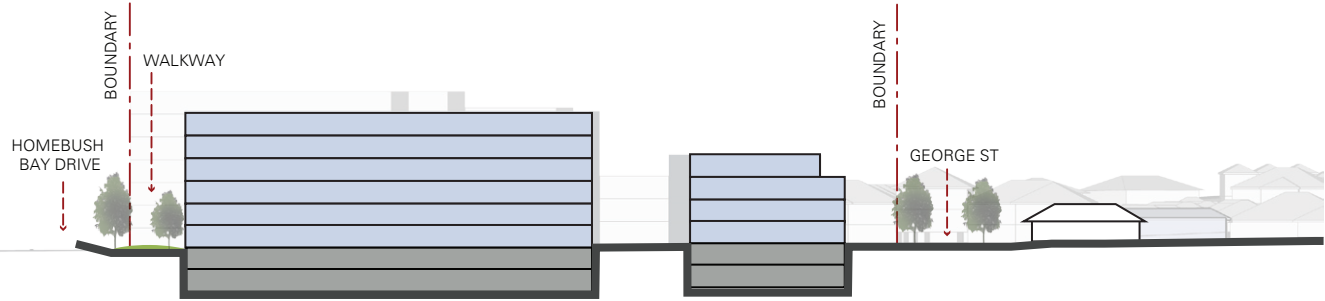
Site 2 - 3D Views & Sections



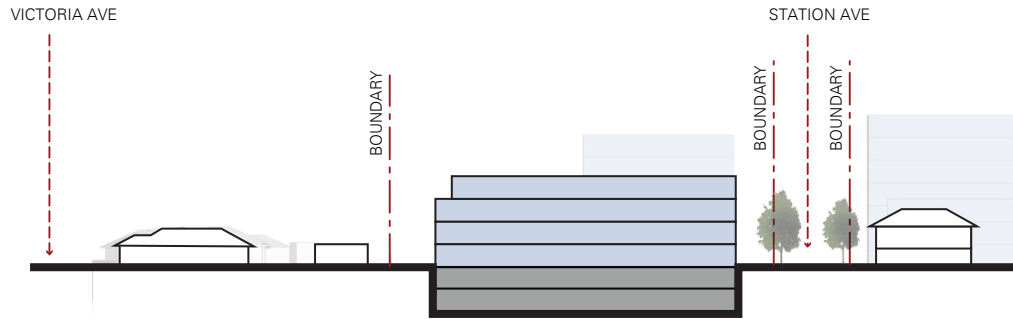
Section Key

Sections

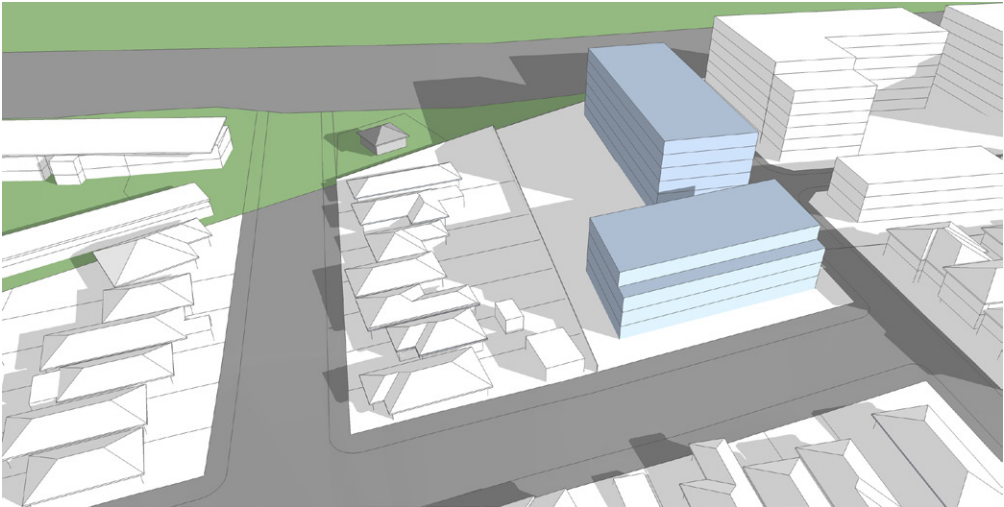
- CC** - Illustrates height transition and upper level setback to George Street.
- DD** - Depicts the principle of 4 storey build form to adjacent low scale residential properties.



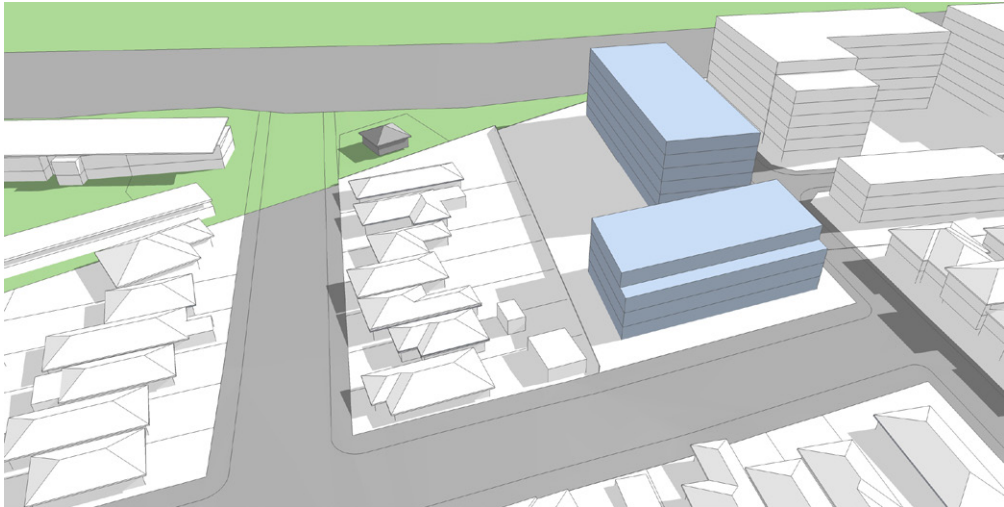
Section CC Scale 1:1000



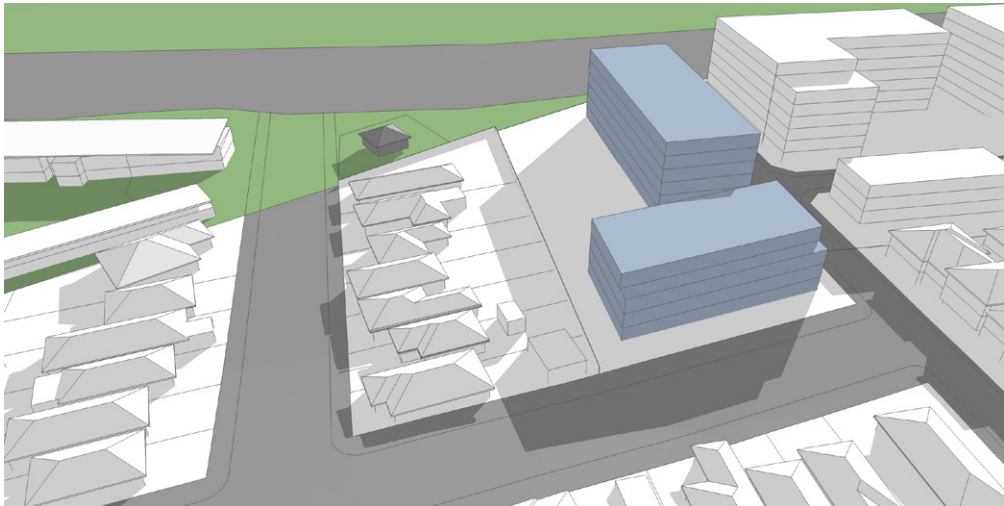
Section DD Scale 1:1000



Winter 9 am



Winter 12 noon



Winter 3 pm

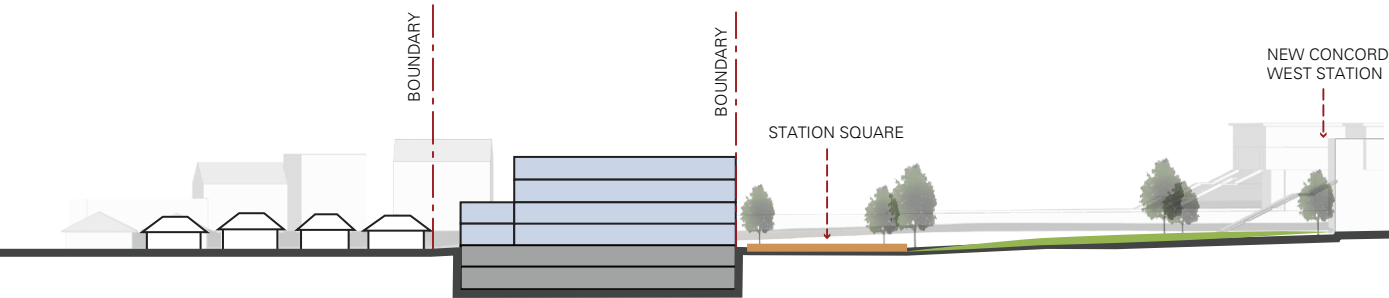
Site 3 - 3D Views & Sections



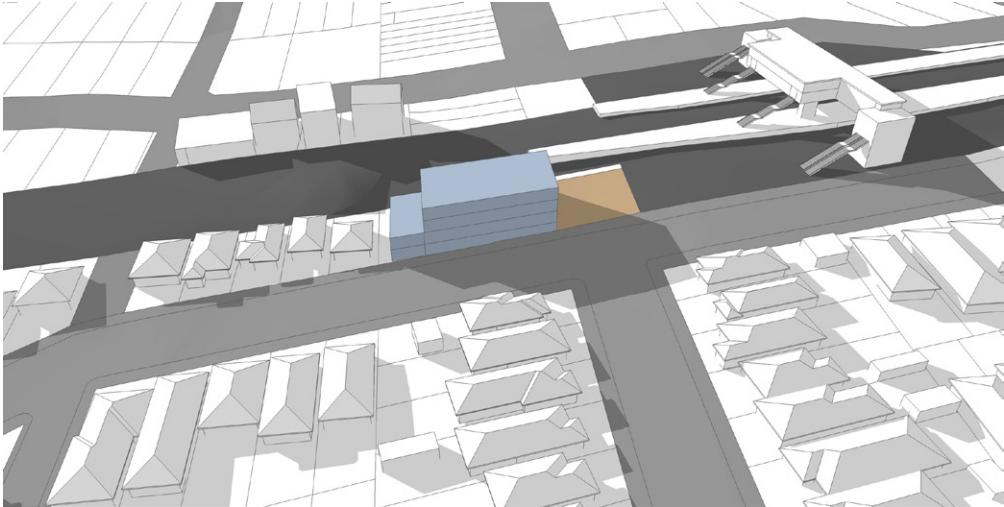
Section Key

Section

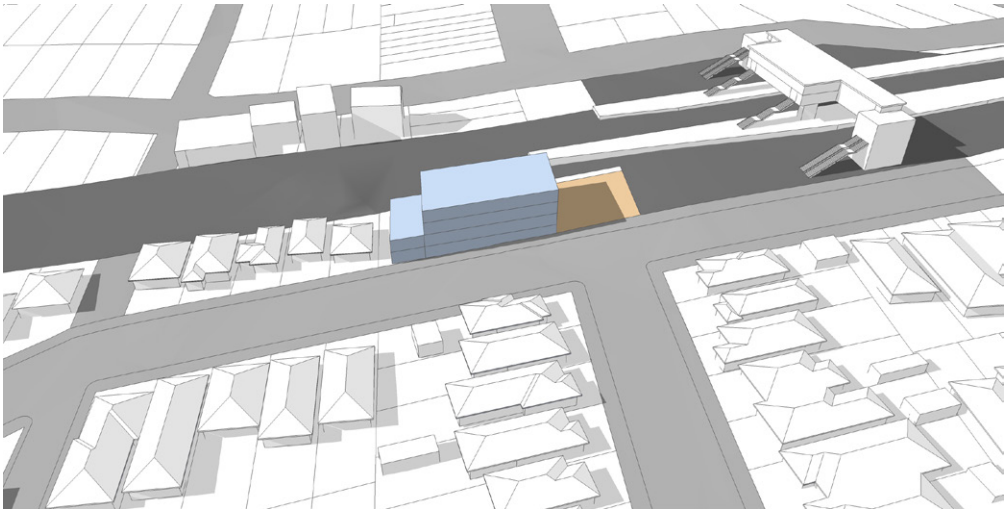
EE - Illustrates the building mass of Site 3 stepping down to properties to the north. Given the reduced setback at the northern boundary a two storey interface is required



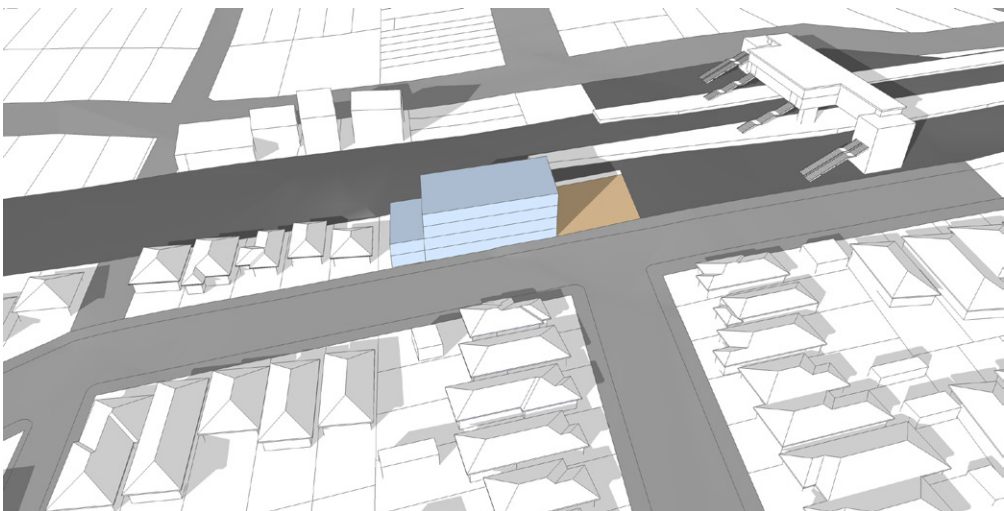
Section EE Scale 1:1000



Winter 9 am



Winter 12 noon



Winter 3 pm

Central Precinct (Sites 4-5) - Detailed Master Plan



George Street pedestrian connection to Powell's Creek Reserve

Key Features:

1. Pedestrian links connecting George Street through to Powell's Creek Reserve and Canada Bay Primary School
2. New buildings to address George Street, the park and the pedestrian links
3. Retention of the Westpac Data Centre for business use. Apply the same development principles as other sites to illustrate how the site could integrate and redevelop at a future date.

LEGEND

Indicative Building Footprint

Upper Level Set Back

Public Open Space

Communal Open Space

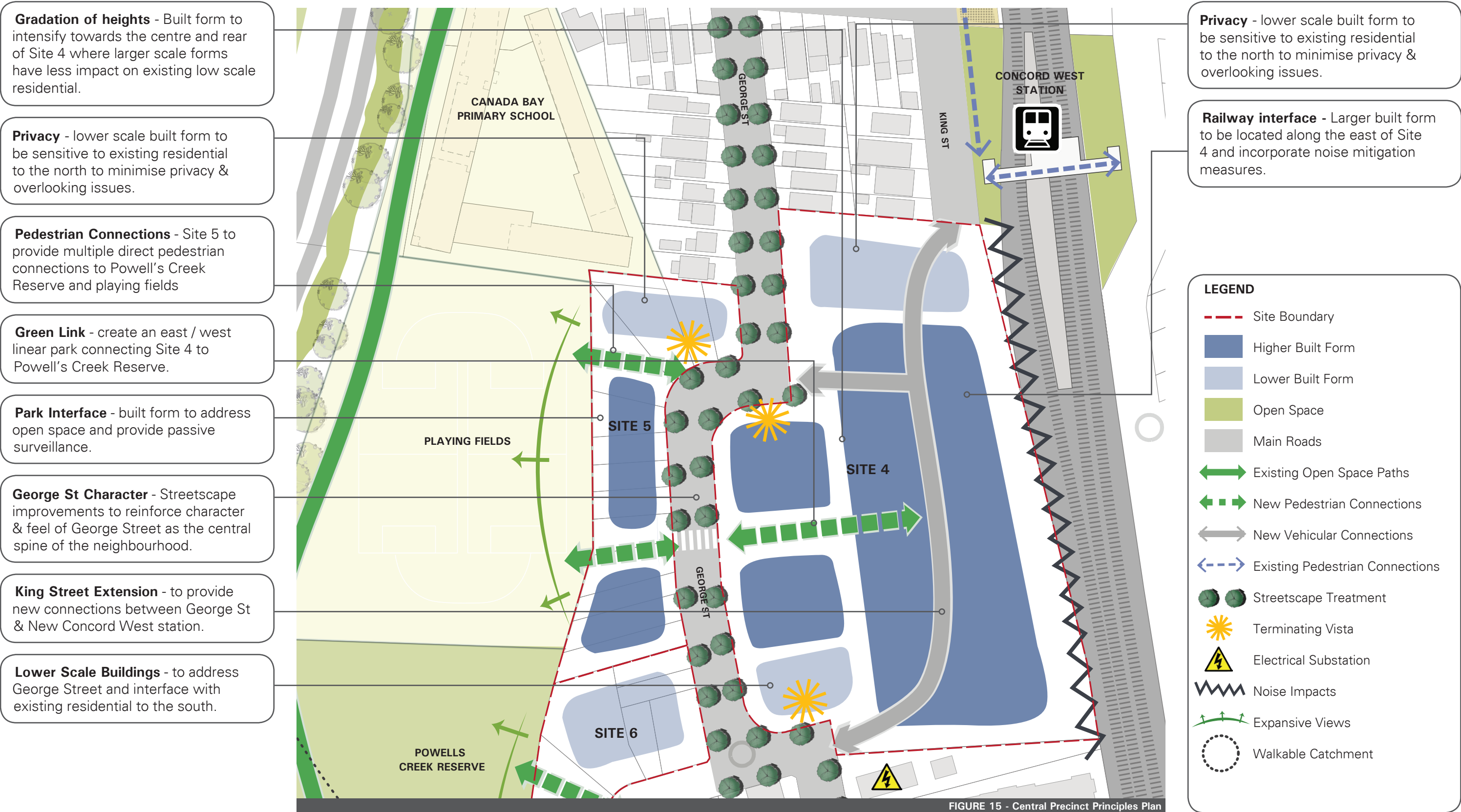
5 Number of Storeys

Vehicle Access



FIGURE 14 - Central Precinct Master Plan

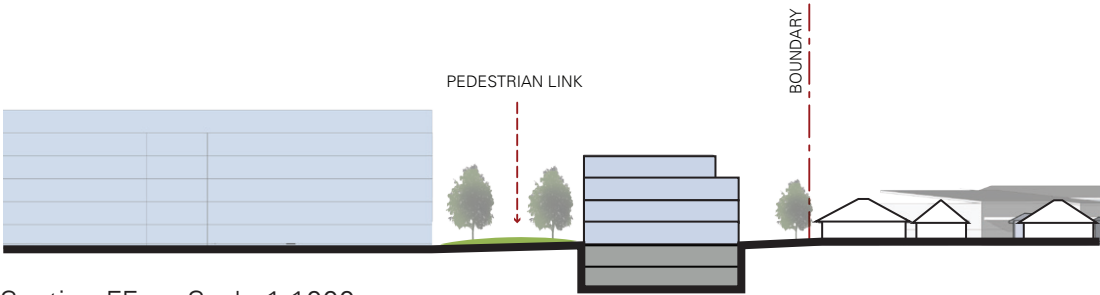
Central Precinct (Sites 4-5) - Development Principles



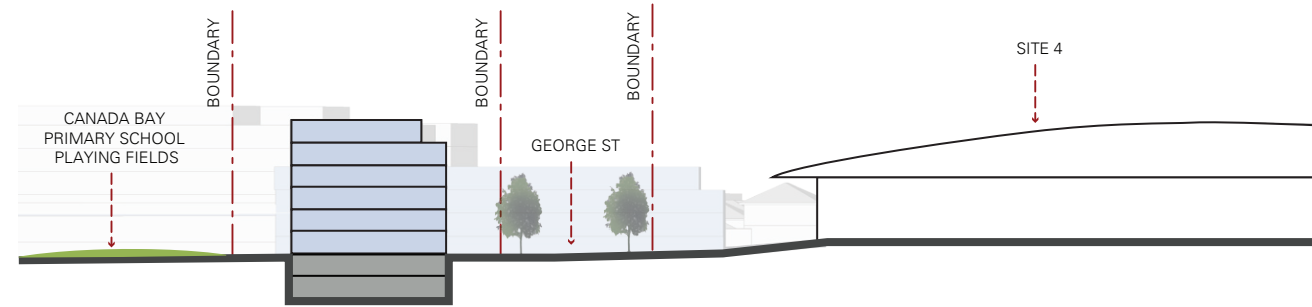
Site 5 - 3D Views & Sections



Section Key



Section FF Scale 1:1000

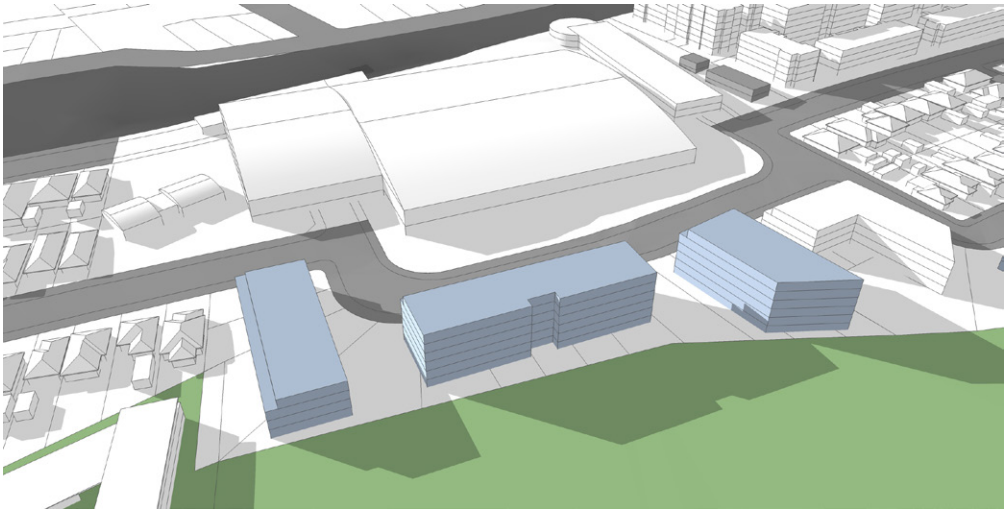


Section GG Scale 1:1000

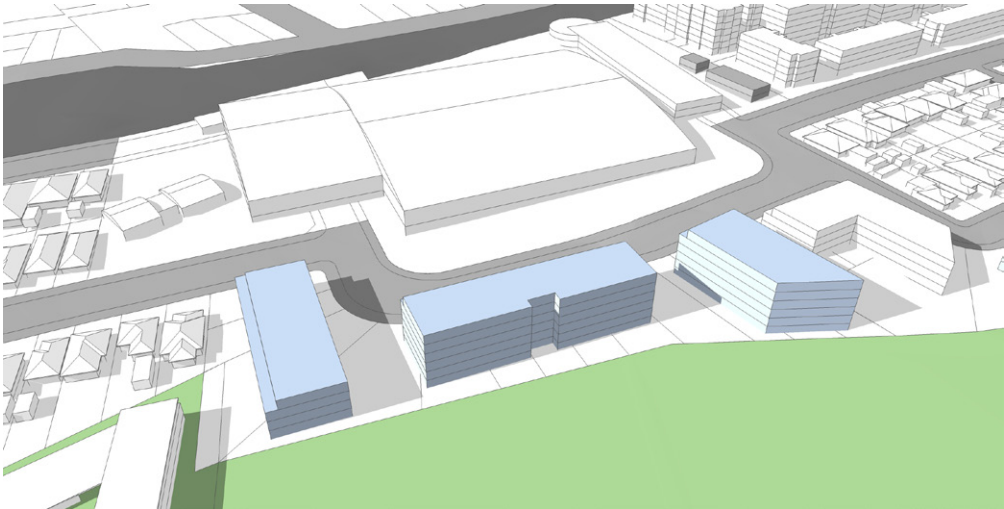
Sections

FF - Illustrates heights stepping down from 6st to 4st at the northern interface to low scale residential

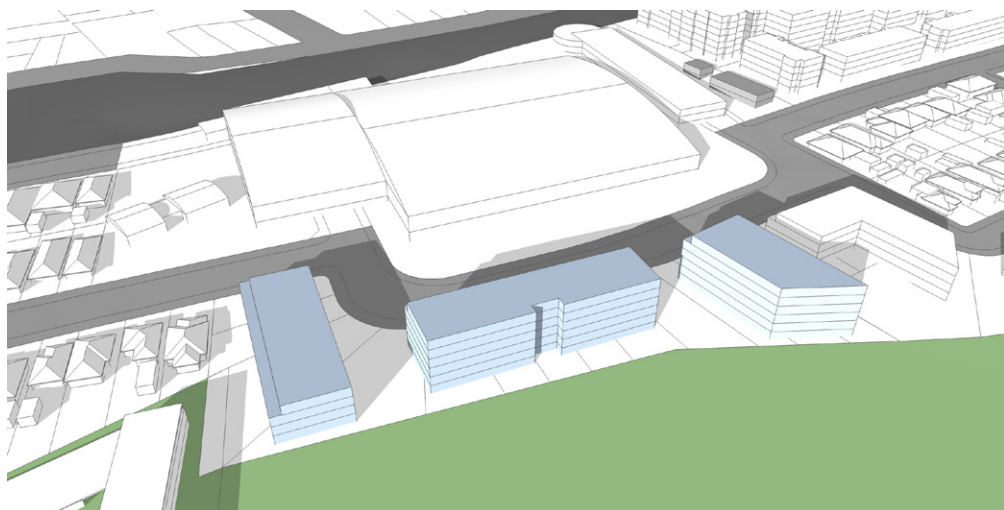
GG - Depicts built form to George Street and upper level setbacks



Winter 9 am



Winter 12 noon



Winter 3 pm

South Precinct (Sites 6-7) - Detailed Master Plan



George Street street scape

Key Features:

1. Pedestrian link connecting Rothwell Avenue to Powell’s Creek Reserve.
2. New buildings to address Rothwell Avenue, Conway Avenue, George Street, the park and the pedestrian link.
3. Four storey built form to complete George Street.

LEGEND

Indicative Building Footprint

Upper Level Set Back

Public Open Space

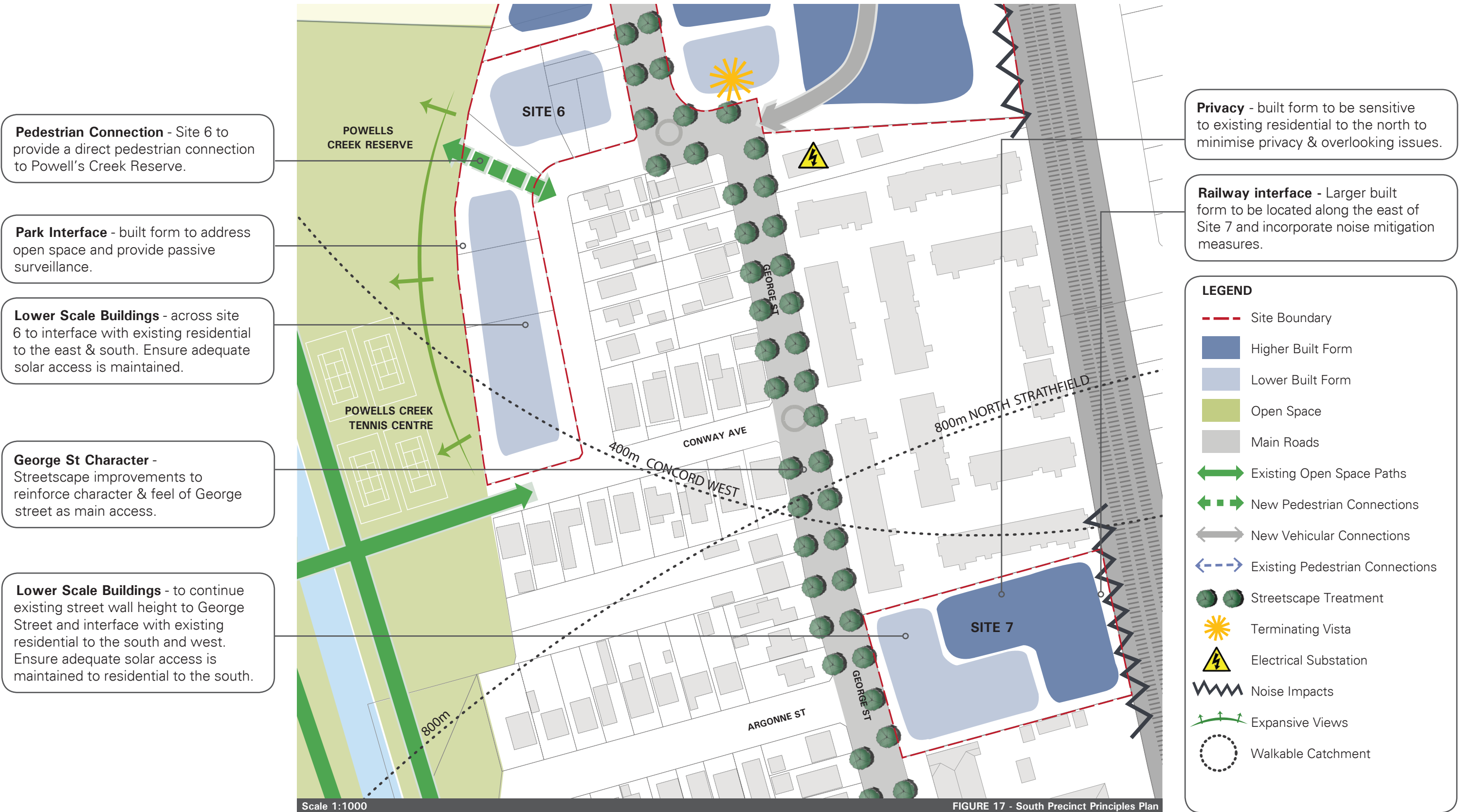
Communal Open Space

Number of Storeys

Vehicle Access



South Precinct (Sites 6-7) - Development Principles



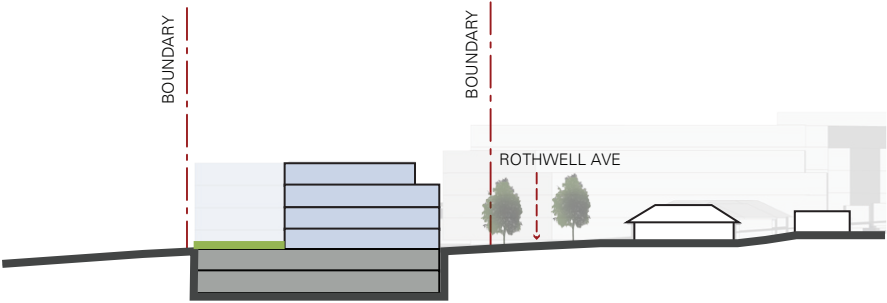
Site 6 - 3D Views & Sections



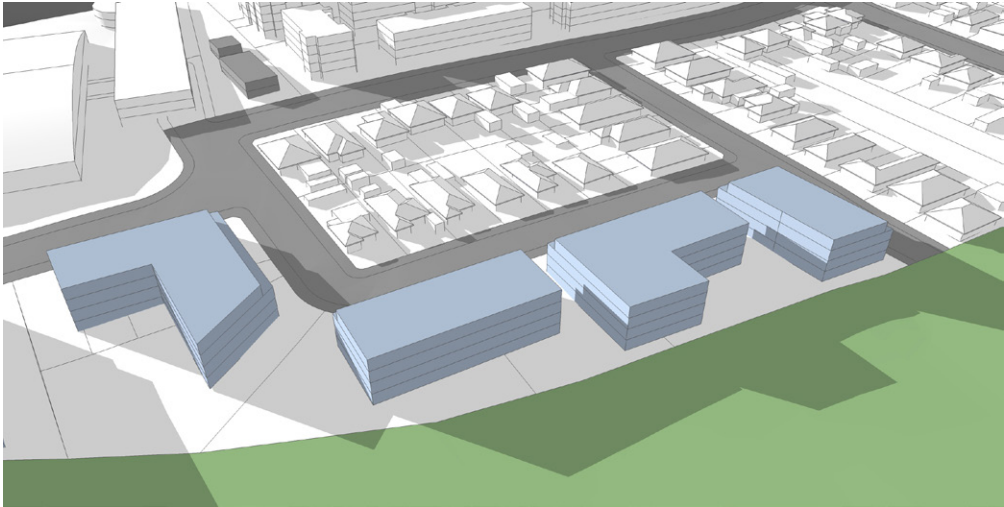
Section Key

Section

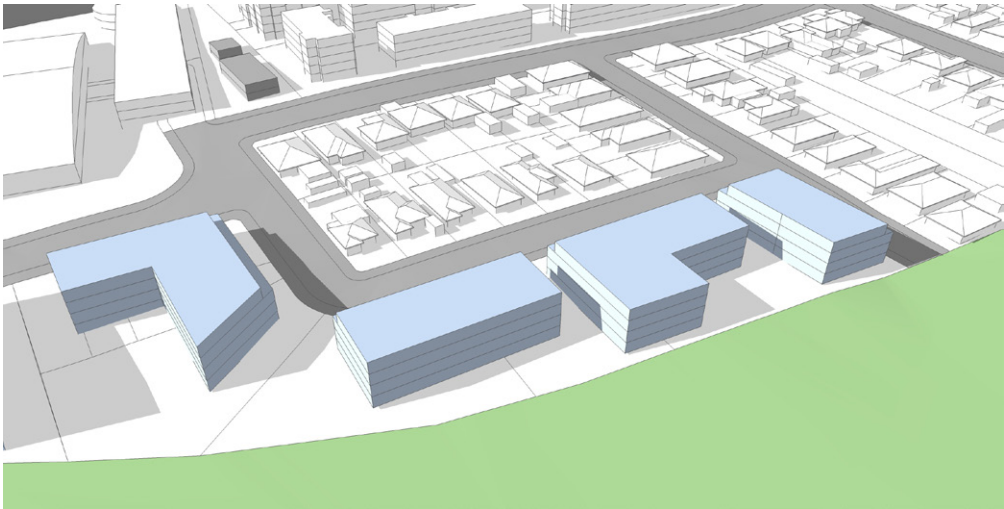
HH - Illustrates 4 storey built form to adjacent low scale residential



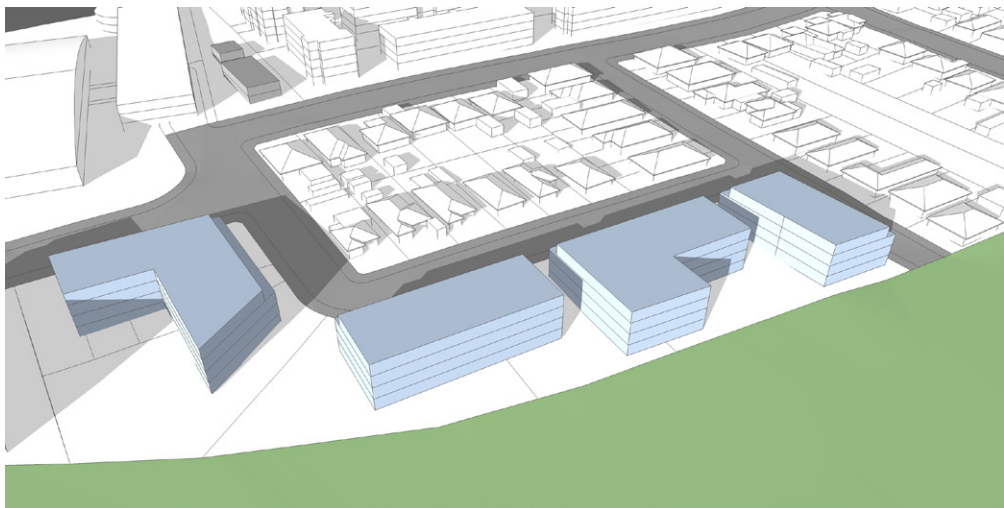
Section HH Scale 1:1000



Winter 9 am



Winter 12 noon



Winter 3 pm

Site 7 - 3D Views & Sections

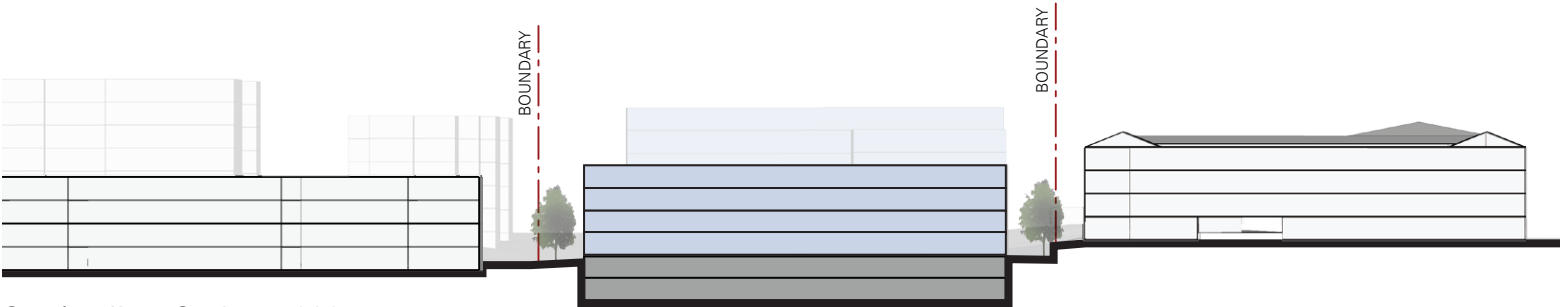


Section Key

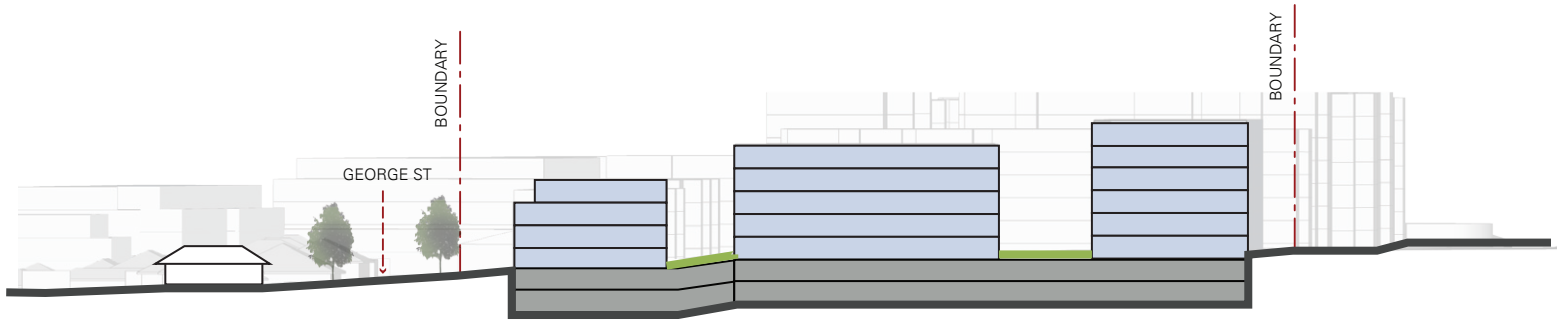
Sections

II - Illustrates a 4 storey building height to George Street maintaining the existing street wall character of the neighbouring properties

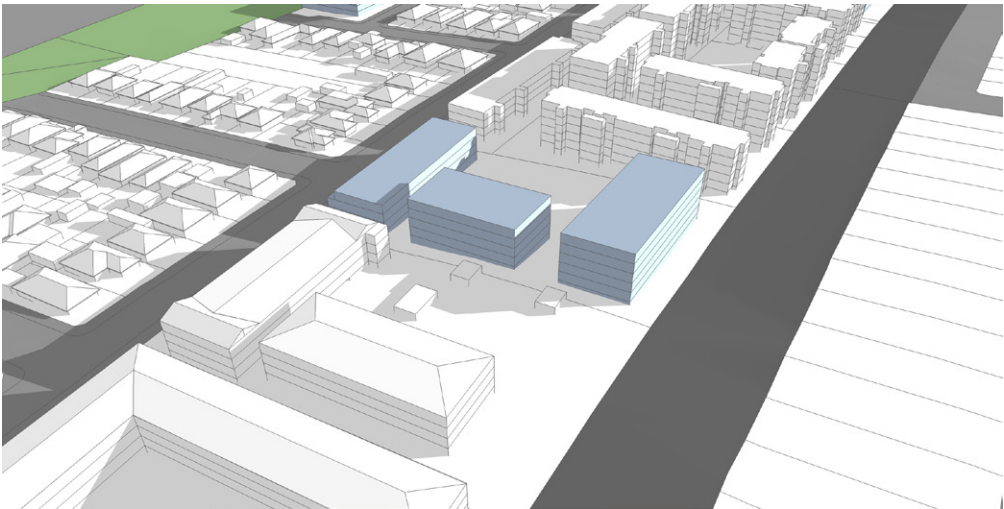
JJ - Shows the transition in height from George Street to the rear of the site and in conjunction with neighbouring properties to the north and south



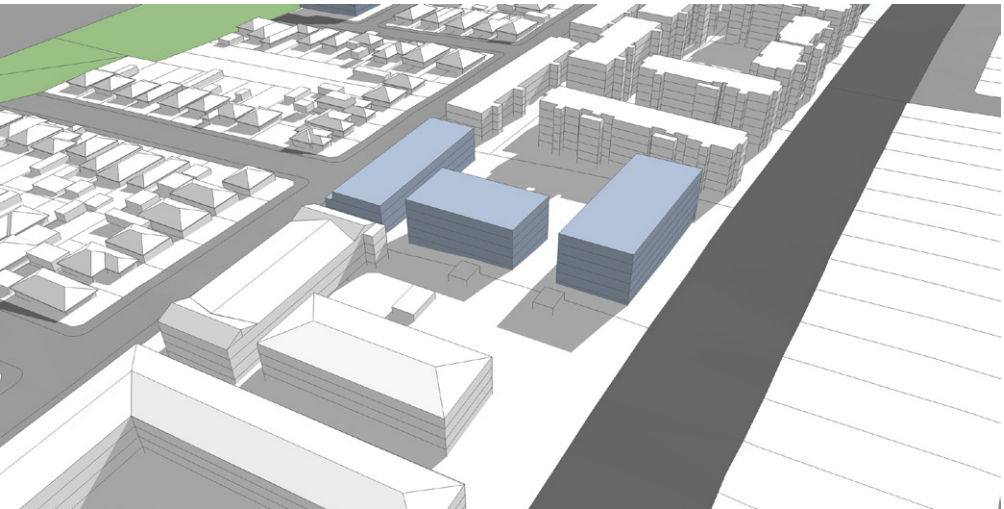
Section II Scale 1:1000



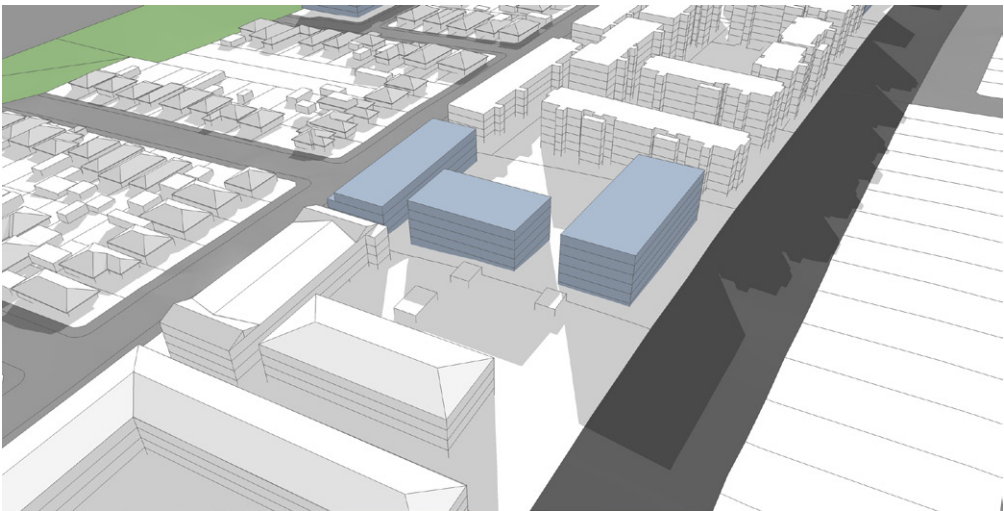
Section JJ Scale 1:1000



Winter 9 am



Winter 12 noon



Winter 3 pm

Indicative Yield Plan

Key Conclusions:

- The total study area yield of **785** units is consistent with the upper limit of the maximum yield as determined by the traffic study.
- The built form principles when applied to the indicative building envelopes deliver a balanced development approach across the industrial sites.
- Where one site receives a greater percentage of the overall dwelling yield to site area it is directly related to the application of the built form principles and the relative constraints between each of the sites.
- The ‘advantage’ or ‘disadvantage’ gained or lost is minimal and should not adversely impact the development feasibility of the site.

Development Assumptions:

The development yield was determined using the following calculations:

- Building Envelope to GFA: 85%
- GFA to NSA 85%
- Average Gross Unit Size (m²) 80m²

TABLE 1 - Development Summary Balance

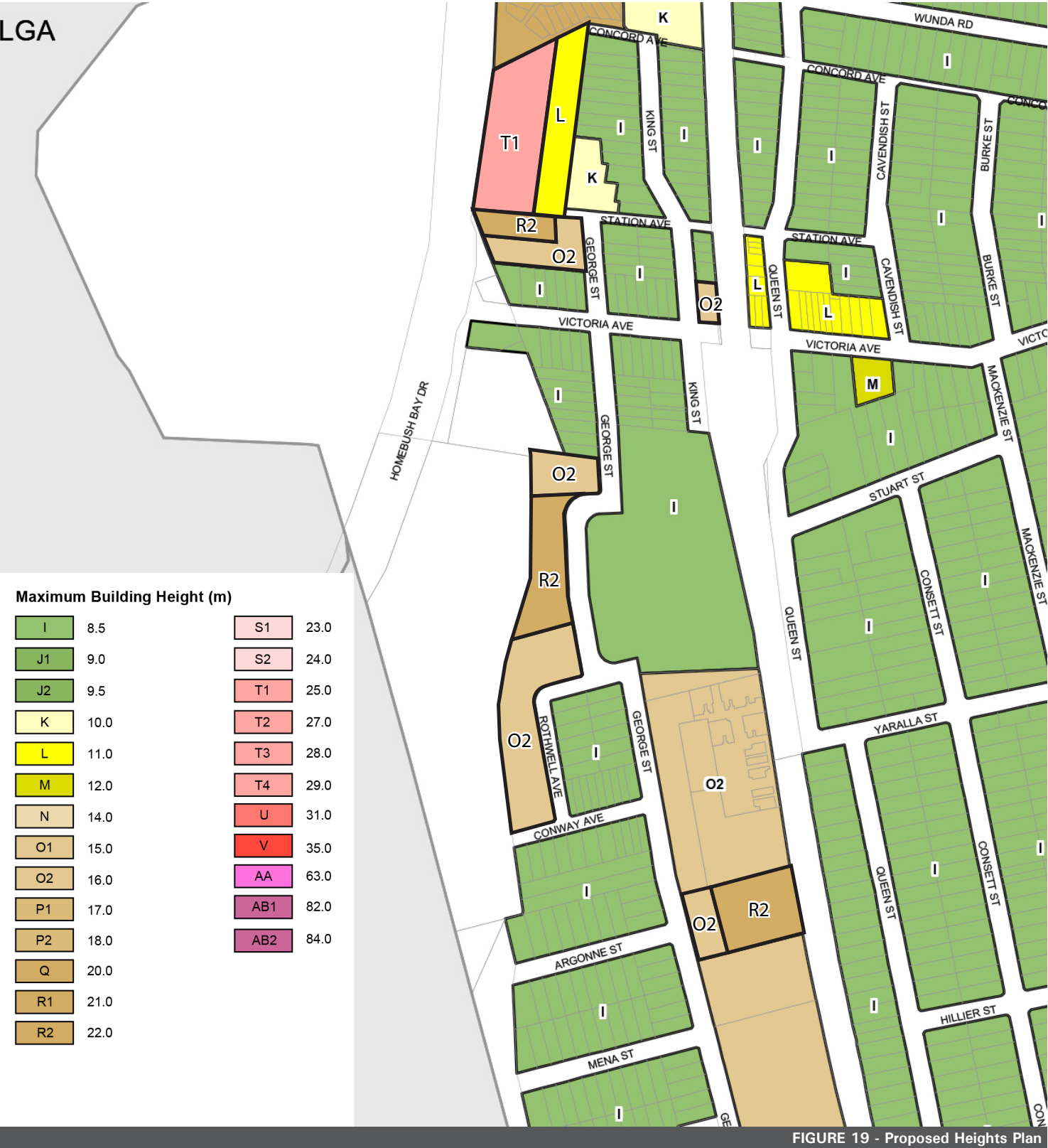
| Site | Address | Dwelling Yield | FSR : 1 | Site Area | % Industrial Area | % Dwelling Yield | % Yield - % Area | Notes |
|-------|-------------------------|----------------|---------|-----------|-------------------|------------------|------------------|---|
| 1 | 7 Concord Ave. | 255 | 1.6 | 14968m² | 33.0% | 32.5% | - 0.5% | neutral |
| 2 | 204 - 210 George St. | 86 | 1.6 | 5028m² | 11.0% | 11.0% | 0% | neutral |
| 3 | 3 King St. | 20 | 2.3 | 809m² | 1.8% | 2.5% | + 0.72% | Lower constraints due to reduced setbacks that are based on the existing building footprint & mixed use. |
| 4 | 1 King Street (Westpac) | n/a | n/a | n/a | n/a | n/a | n/a | Zoned B7 - No residential |
| 5 | 176 - 184 George St. | 157 | 1.9 | 7806m² | 17.2% | 20.0% | + 2.8% | Site 5 is the least constrained site due to minimal proximity to existing low scale residential and thus achieves a slightly higher dwelling yield. |
| 6 | 2 - 10 Rothwell St. | 141 | 1.4 | 9404m² | 20.7% | 18.0% | - 2.7% | Site 6 is the most constrained site due to proximity to existing low scale residential and thus achieved a slightly lower dwelling yield. |
| 7 | 25 George St. | 126 | 1.6 | 7402m² | 16.3% | 16.0% | - 0.3% | neutral |
| TOTAL | | 785 units | | 45417m² | 100% | 100% | 0% | Excludes Westpac site |



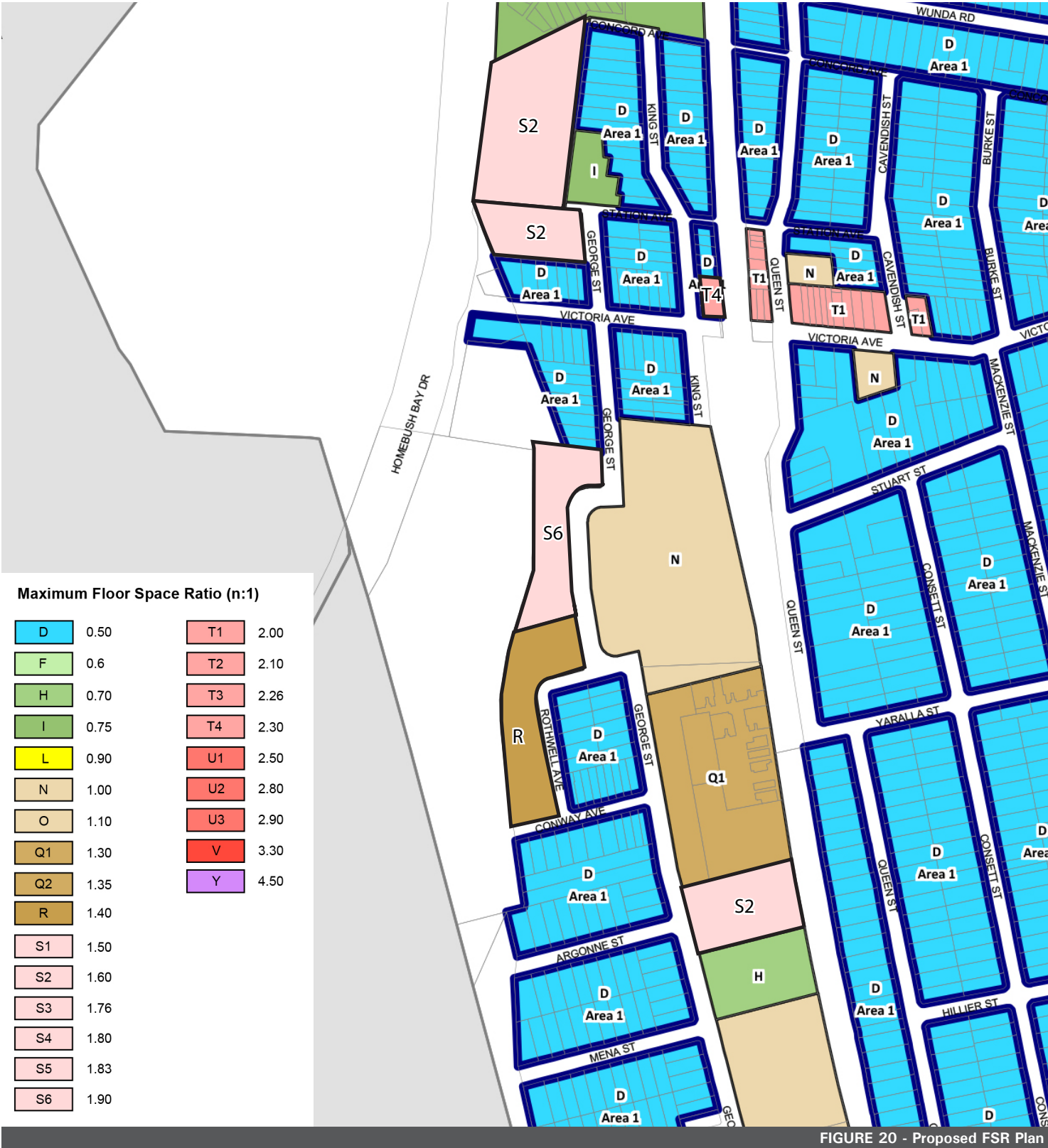
FIGURE 18 - Indicative Yield Plan

LEP Planning Controls - proposed

Height of Buildings



Floor Space Ratio



Conclusions

The culmination of the master plan process has led to a vision for the industrial sites that have achieved the stated aims and objectives to:

- 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 recommendations provided; and
- undertake the study with Council community and stakeholder **engagement**.

The process involved all stakeholders in an open, transparent and inclusive process which has led to a robust outcome.

The master plan has acknowledged the competing regional and local issues and provides sound development principles that illustrates a coordinated planning approach and a balanced development outcome for the industrial sites.



Site



Principles



Plan



Vision



Concord West Precinct Master Plan

Urban Design Study

27 May 2014 ■ 13484

