

# **WATERLOO METRO QUARTER OVER STATION DEVELOPMENT**

**Environmental Impact Statement  
Appendix F – Architectural Design Report**

**Volume 1**

**SSD-10437 Southern Precinct**

Detailed State Significant Development  
Development Application

Prepared for **Waterloo Developer Pty Ltd**

30 September 2020

# PART ONE SOUTHERN PRECINCT WATERLOO METRO QUARTER

SSD-10437 DESIGN REPORT  
PREPARED FOR WATERLOO DEVELOPER PTY LTD  
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# 1.0 INTRODUCTION

*This report has been prepared to accompany State Significant Development (SSD-10437) development application (DA) for a mixed-use Integrated Station Development (ISD) above the new Sydney Metro Waterloo Station.*

## 1.1 DEVELOPMENT SUMMARY

This detailed SSD DA seeks development consent for:

### Building 3

- student accommodation with 474 beds with shared communal areas and communal roof terrace on the podium
- 973sqm gym
- 300sqm community space
- building services and back of house spaces including shared loading dock and substation

### Building 4

- 70 social housing apartments above the southern metro box
- communal roof terrace and community room

We confirm that Guy Lake of Bates Smart directed the design of the enclosed Development Application and that Mr Lake is registered as an architect in accordance with the Architects Act 1921.

## 1.2 SEARS

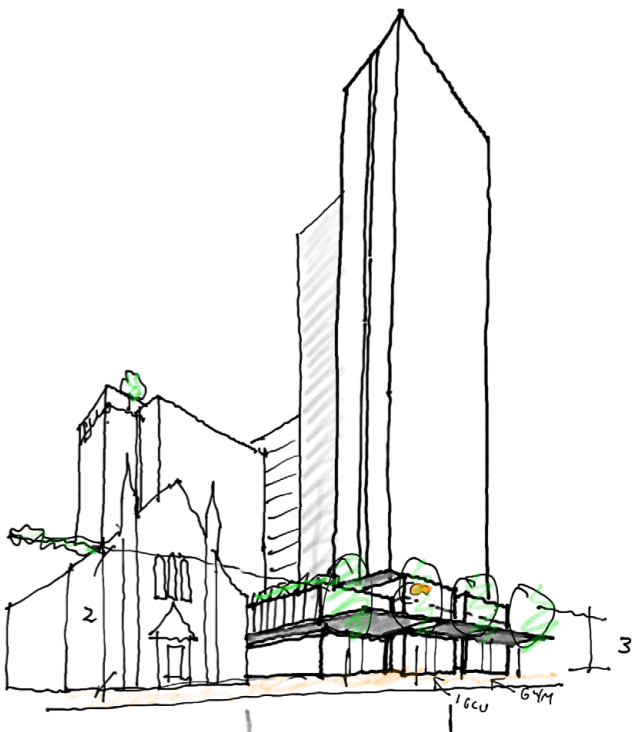
This report has been prepared in response to the requirements contained within the Secretary’s Environmental Assessment Requirements (SEARs) dated 08.04.2020. Specifically, this report has been prepared to respond to the following SEARs plans and documents:

- / all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation.
- / site analysis plan
- / schedule of proposed gross floor area per land use
- / building envelopes showing the relationship with proposed and existing buildings in the locality
- / architectural and urban design statement, including illustrations and justification showing how the buildings will relate the station entrances and enhance the surrounding public domains
- / signage details (if proposed)
- / ADG Assessment

This report is intended to be read in conjunction with Appendix D - Architectural Drawings

The proposed design has been developed in accordance with the following:

- / Concept SSD 9393 Development Consent (dated 10 December 2019)
- / Waterloo Metro Quarter Amenity and Design Guidelines (dated March 2020)
- / City of Sydney DCP 2012
- / Urban Design Framework (Refer to Appendix E - Urban Design report by Hassell)
- / Principal’s MQD Objectives (PDA Schedule A3)
- / MQD Requirements (Precinct) (PDA Schedule A28)
- / MQD Design Parameters (PDA Schedule C1)
- / MQD Basis of Design (PDA Schedule C5)
- / Metro Impact (PDA Schedule A35)
- / Social Housing (PDA Schedule A32)



Concept Sketch

# 2.0 VISION STATEMENT

*The Southern Precinct will deliver new student accommodation, social housing, retail and community facilities that will make a positive contribution to housing diversity and aims to support the needs of the current and future community.*

*The buildings have their own separate identity and character that reinforces the architectural diversity of the precinct and responds sympathetically to the adjoining context. The form and materiality of the Social Building responds directly to its Metro Station podium. It's façade is defined by face brick piers separated by recessed balconies, fine metal screens and planters that respond to orientation and reinforce its residential character.*

*The brickwork podium to the Student Building responds to the scale of the adjoining heritage listed church and provides a human scale to the street. Its vertical articulation responds to the fine grain character of existing adjacent buildings whilst reinforcing the identity of its separate uses that include retail, community, student and the social entry.*

*The buildings have been carefully designed to deliver a high level of residential amenity with a focus on maximising natural light, ventilation and outlook to all apartments, communal areas and circulation spaces. A broad range of indoor and outdoor communal facilities extends throughout the buildings and will foster a strong sense of community and identity amongst residents.*

*Future residents will benefit from access to a range of amenities and services across the Metro Quarter Development, as well as the new Metro Station providing improved public transport links across the city.*



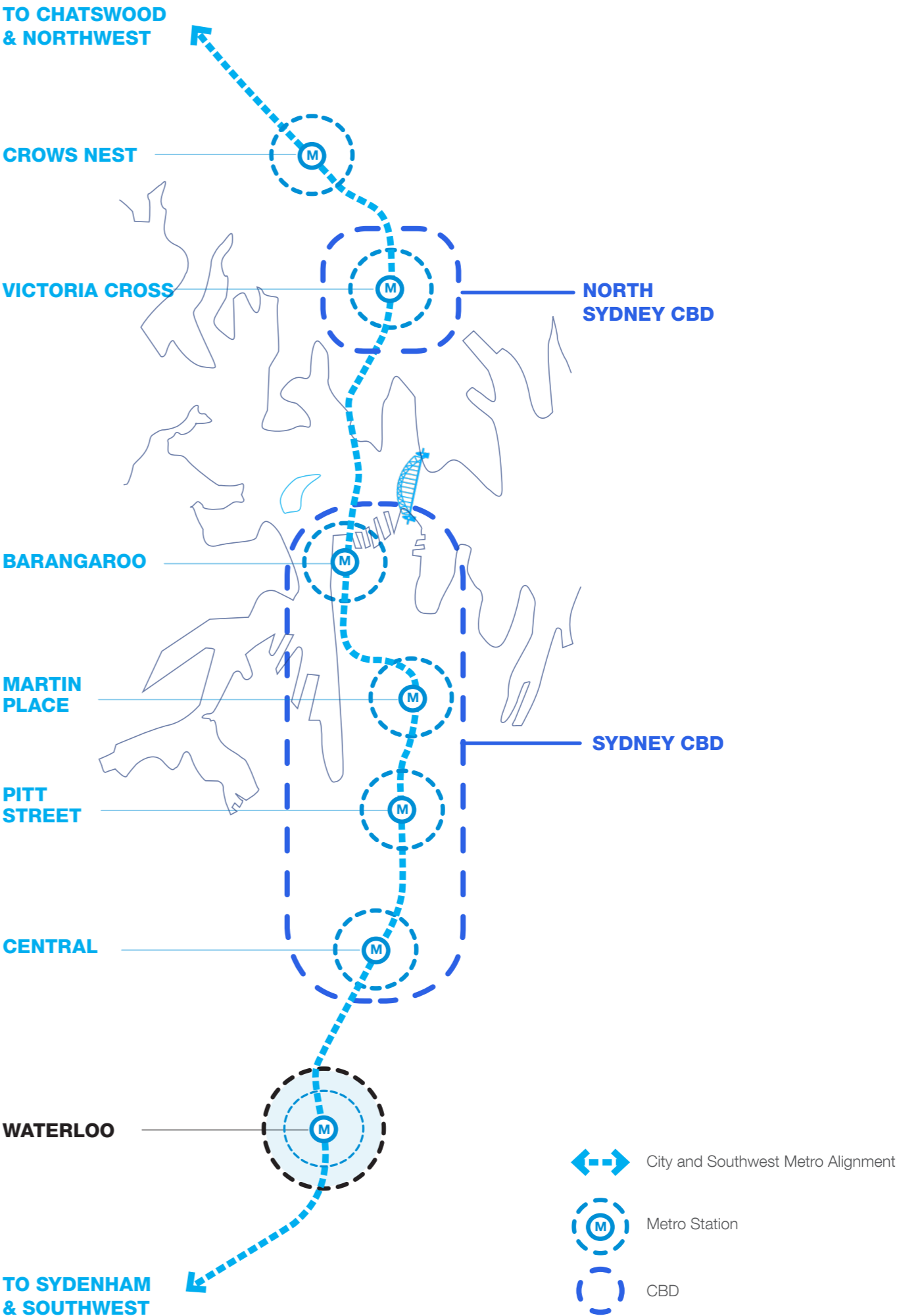
# 3.0 LOCATION + CONTEXT

## 3.1 SYDNEY METRO

Sydney Metro is Australia’s biggest public transport project. Services started in May 2019 in the city’s North West with a train every four minutes in the peak. Metro rail will be extended into the CBD and beyond to Bankstown in 2024. There will be new metro railway stations underground at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street, Waterloo and new metro platforms under Central.

In 2024, Sydney will have 31 metro railway stations and a 66 km standalone metro railway system – the biggest urban rail project in Australian history. There will be ultimate capacity for a metro train every two minutes in each direction under the Sydney city centre.

On 9 January 2017, the Minister for Planning approved the Sydney Metro City & Southwest - Chatswood to Sydenham project as a Critical State Significant Infrastructure project (reference SSI 15\_7400) (CSSI Approval). Positioned between Central and Sydenham, the Waterloo station will form part of a public transport hub serving the suburbs of Waterloo, Alexandria and Redfern.



# 3.2 SITE LOCATION

The site is located on the western edge of Waterloo, south of the Sydney CBD. The proposed Metro Station is the catalyst for the new mixed use Waterloo Metro Quarter development.

The subject site forms the Southern Precinct within the development with street frontages to Botany Road to the west, Wellington Street to the south and Cope Street to the east.

The immediate vicinity is expected to see increased development in the future, with the new Metro station providing improved public transport links across the city. The Waterloo Estate to the east, which contains a high proportion of public housing, has a proposed masterplan for a mixed use precinct which will provide public spaces, facilities and services and improved pedestrian and cycle links to the Metro Quarter.

KEY

Waterloo Metro Quarter

Subject Site (South Precinct)

Heritage Items (Waterloo Church & Cauliflower Hotel)

Heritage Conservation Area

Waterloo Estate

Metro Station

Metro Corridor

Public Park



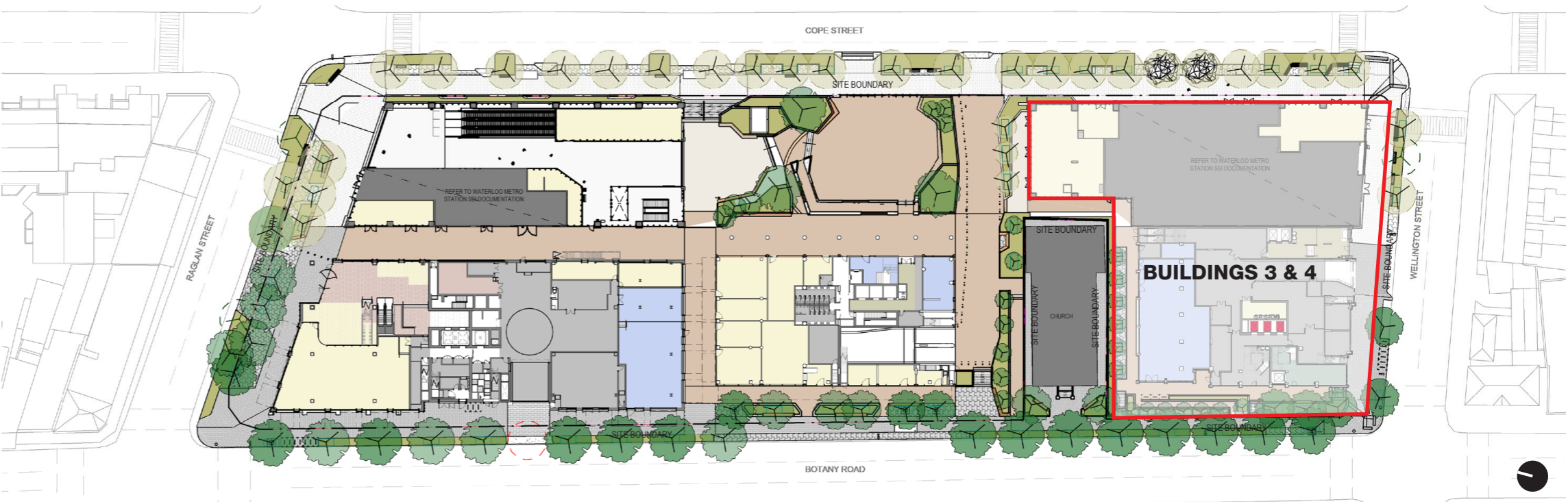
# 3.3 WATERLOO METRO QUARTER

The Waterloo Metro Quarter (WMQ) is a mixed use development centred around the new Waterloo Metro Station. The masterplan is designed around a large public space to the east of the site called Cope Street Plaza, with a series of pedestrianised laneways through the site creating connections across the development.

The proposed development will include:

- / The Waterloo Metro Station - consisting of an underground concourse with an above ground station entry and service box to the north of the site and an above ground service box to the south of the site
- / Building 1 - a commercial office building with a retail ground plane
- / Building 2 - a residential tower with a mixed use podium containing retail and community spaces
- / Building 3 - a student accommodation tower with a mixed use podium containing a gym and a community space
- / Building 4 - a social housing building located above the southern metro service box

For further detail of the masterplan and contextual analysis, refer to the Appendix E - Urban Design report prepared by Hassell.



**WATERLOO METRO QUARTER GROUND PLANE** SCALE 1:1000 @ A3  
(Site drawing by HASSELL)



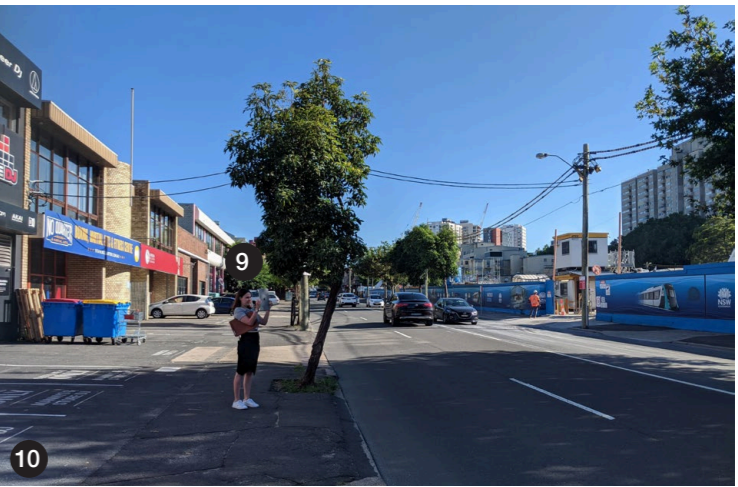
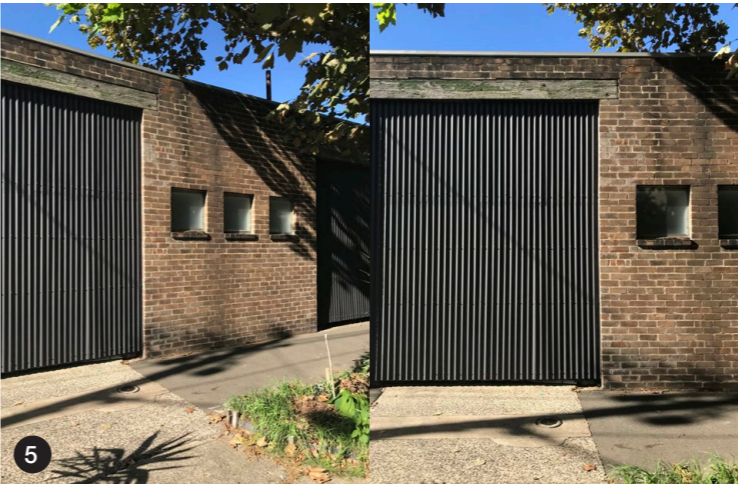
**AERIAL VIEW OF PROPOSED WATERLOO METRO QUARTER DEVELOPMENT**



**COPE STREET PLAZA**

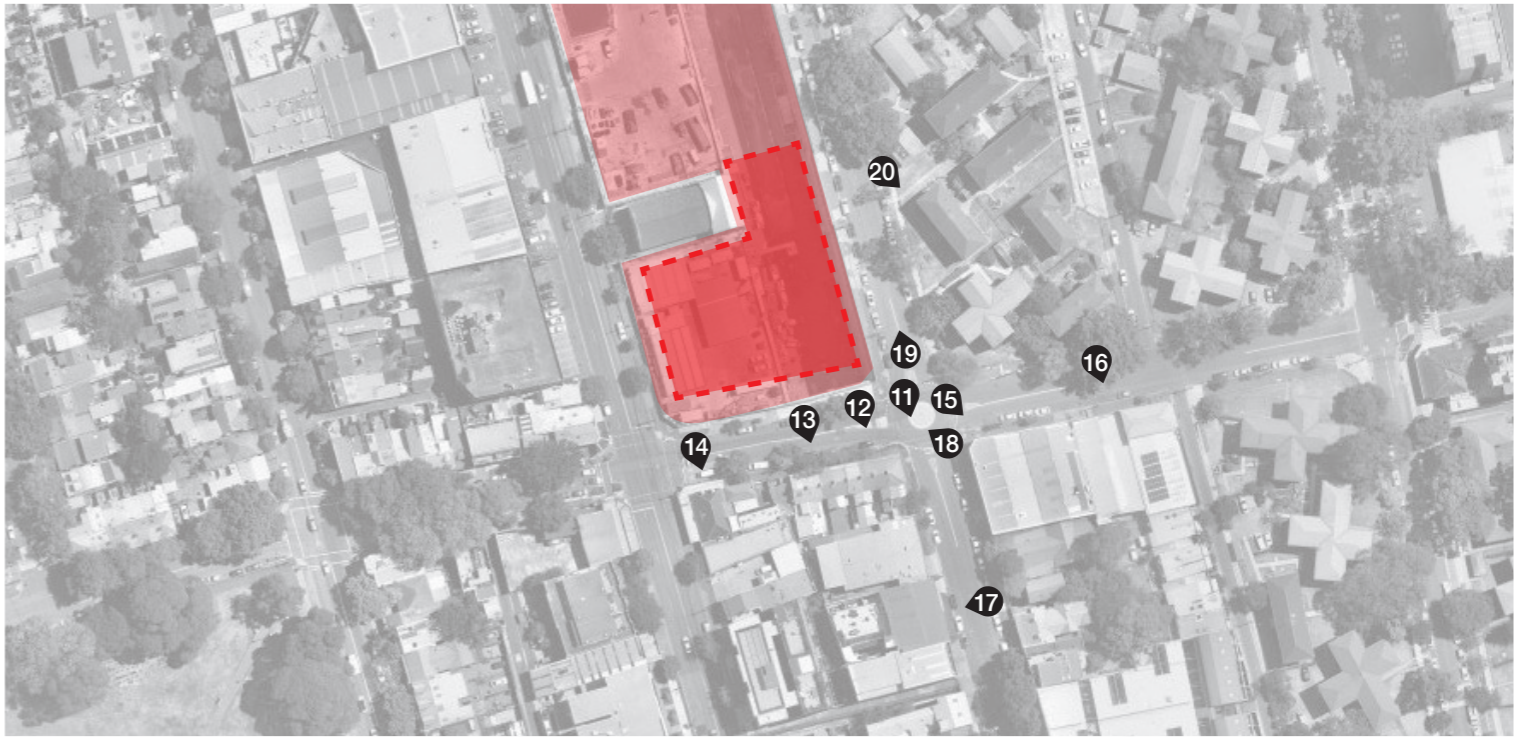
# 3.4 SITE PHOTOS

*The immediate area to the west of the site is characterised by commercial and light industrial uses along Botany Road. Beyond Botany Road the character gradually becomes more low rise and residential as you head towards Alexandria.*

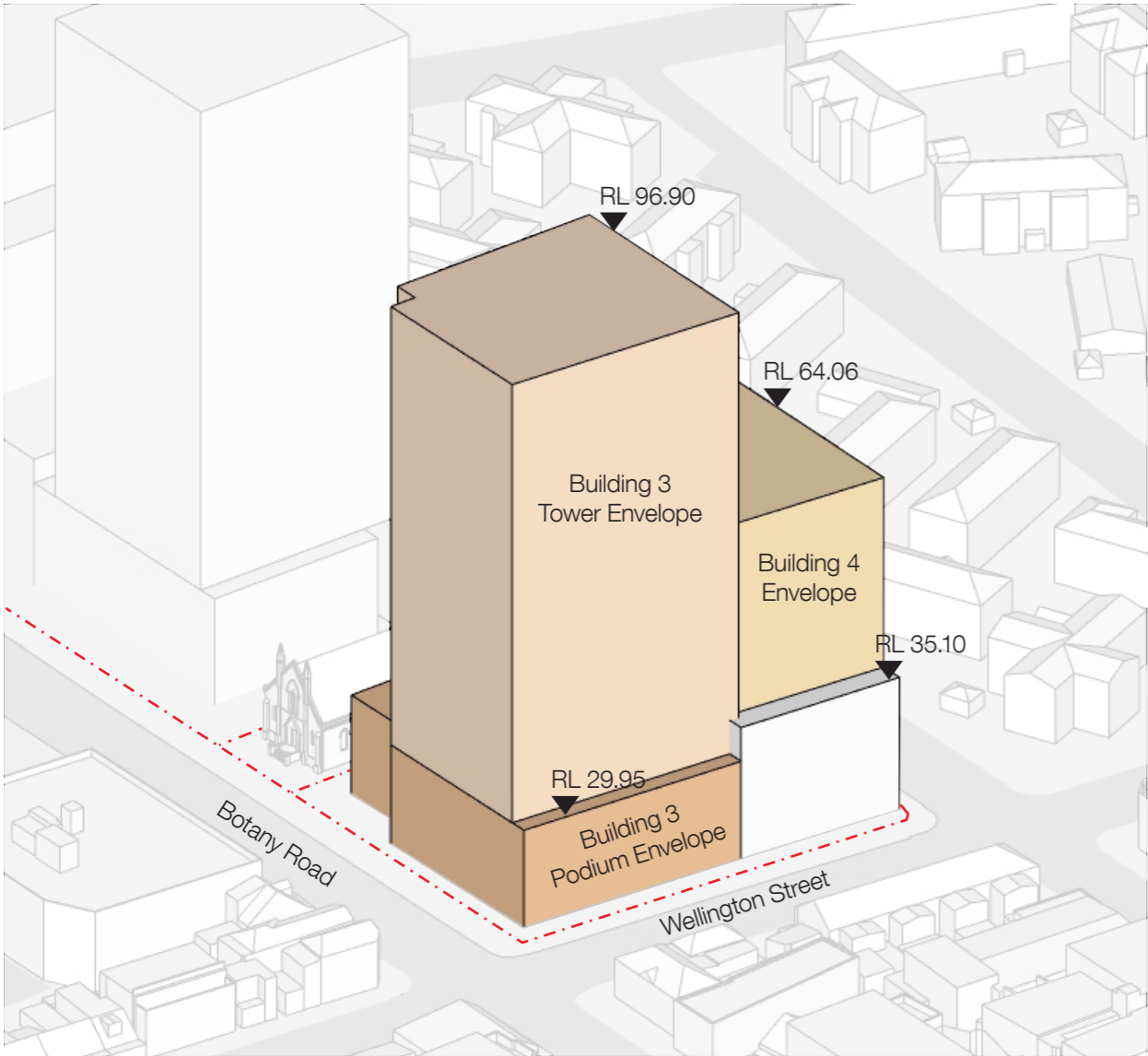


# 3.4 SITE PHOTOS

*The area to the south and south-east of the site is characterised by a mix of commercial, light industrial and residential uses. To the east is the Waterloo Estate, an area of public housing consisting of low rise blocks and high rise towers.*

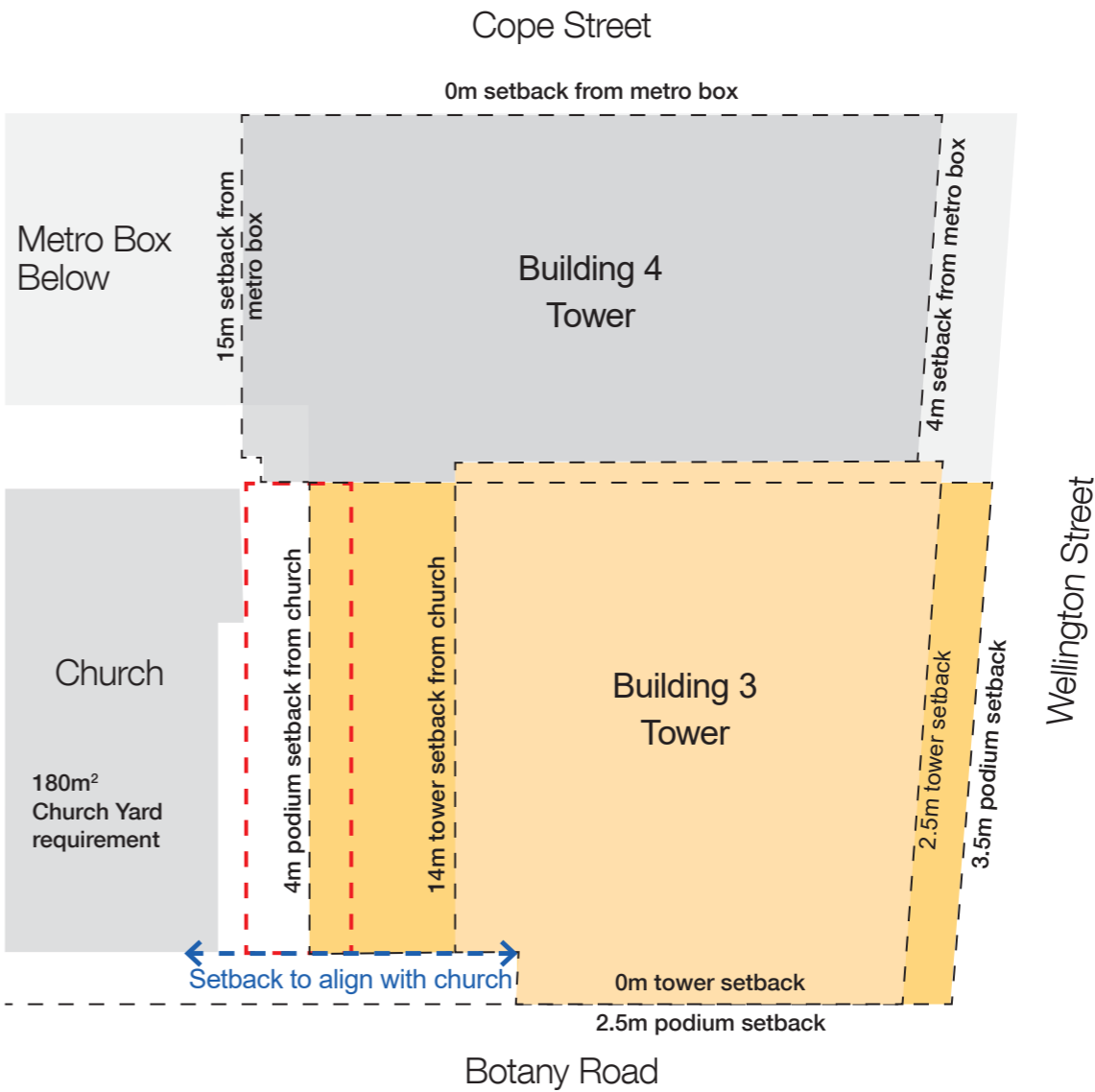


# 4.0 SITE ANALYSIS



## 4.1 STAGE 1 DA MASTERPLAN & ENVELOPE

The **Building 3** envelope envisages a podium and tower typology. The podium envelope can accommodate up to 3 storeys with a boundary setback of 3.5m on Wellington Street, 2.5m on Botany Road and a 4m setback to the Church to the north. The tower envelope has a 2.5m setback from the podium to Wellington Street, a 0m setback to the podium on Botany Road and a 14m setback to the Church. To the east, the tower envelope extends approximately 1.5m over the Metro Box.

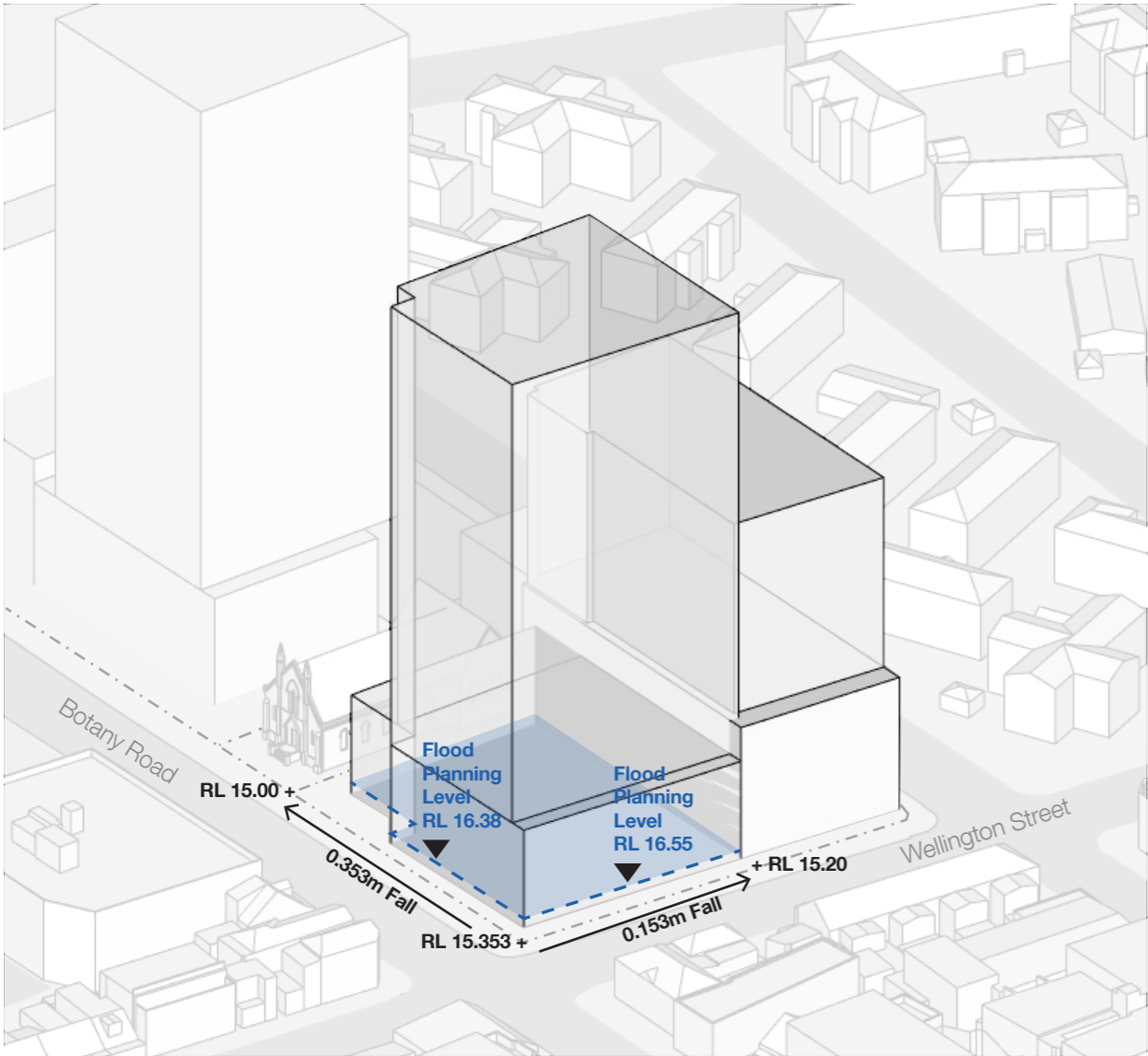


Plan Diagram of Stage 1 DA Envelope

The **Building 4** envelope is located over the southern metro box and can accommodate up to 9 residential levels. The envelope has a 0m setback from the metro box to the east and west. There is a 15m setback from the metro box to the north and 4m setback to the south, which have been driven primarily by setback requirements to the station vents below.

The southern metro box primarily contains the plant equipment servicing the below grade station and concourse. The station roof is not able to be penetrated meaning the Building 4 lifts are required to be positioned outside of the metro box. Similarly, all building services and fire egress paths need to transfer out before descending to ground level. Note: the Metro Box is not part of this Development Application.

# 4.0 SITE ANALYSIS

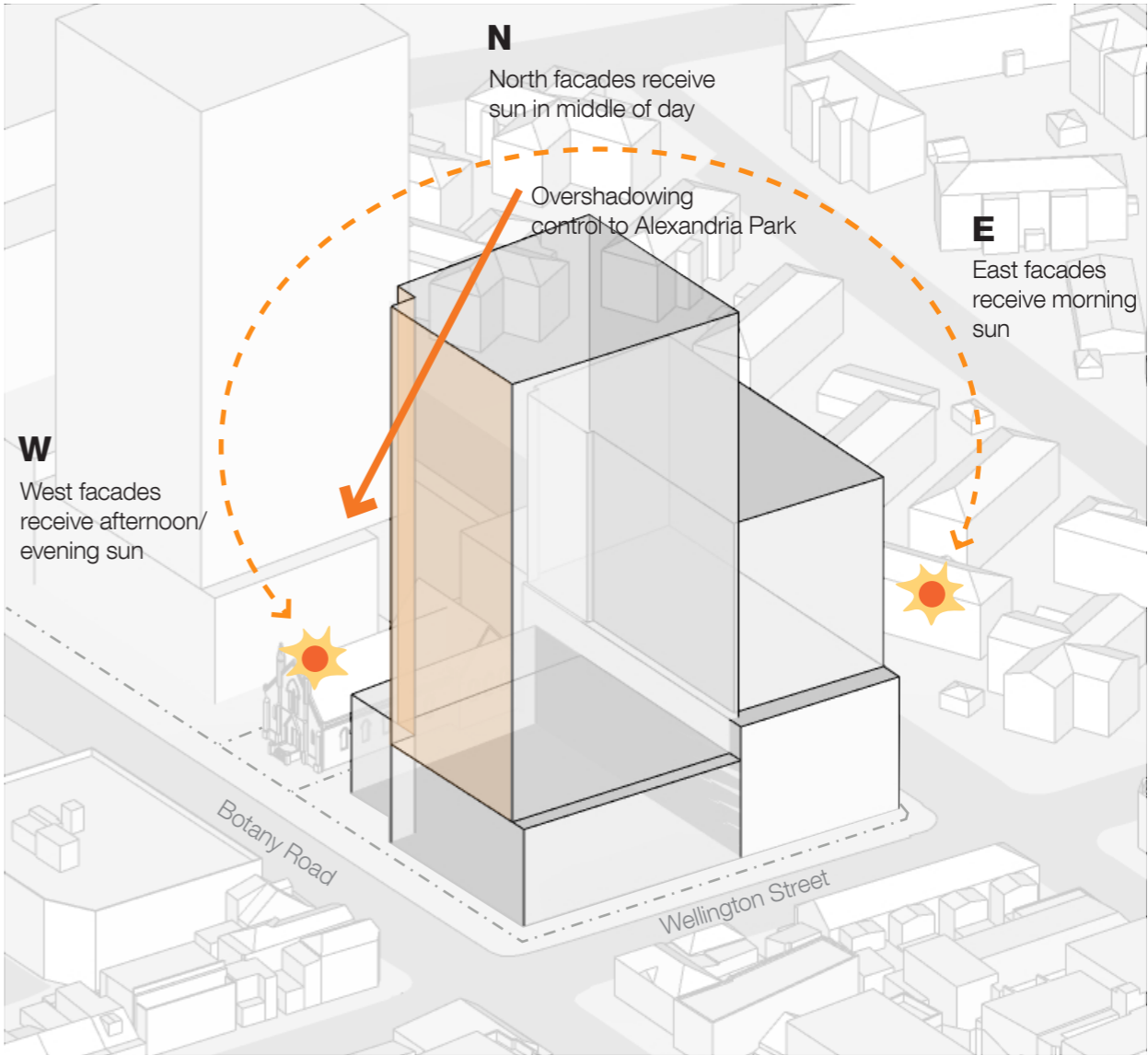


## 4.2 TOPOGRAPHY & FLOODING

The site is relatively flat with a fall of approximately 0.153m across Wellington Street and a fall of approximately 0.353m across Botany Road.

The subject site is susceptible to flooding, which requires the ground floor level to be elevated above the street level. Due to the differing levels across the site, there is a slight variance between the Flood Planning Level (FPL) on Botany Road and Wellington Street.

For further details, refer to Appendix O - Stormwater Management Strategy and Flood Impact Assessment and Appendix CC - Civil Engineering Report and Plans.

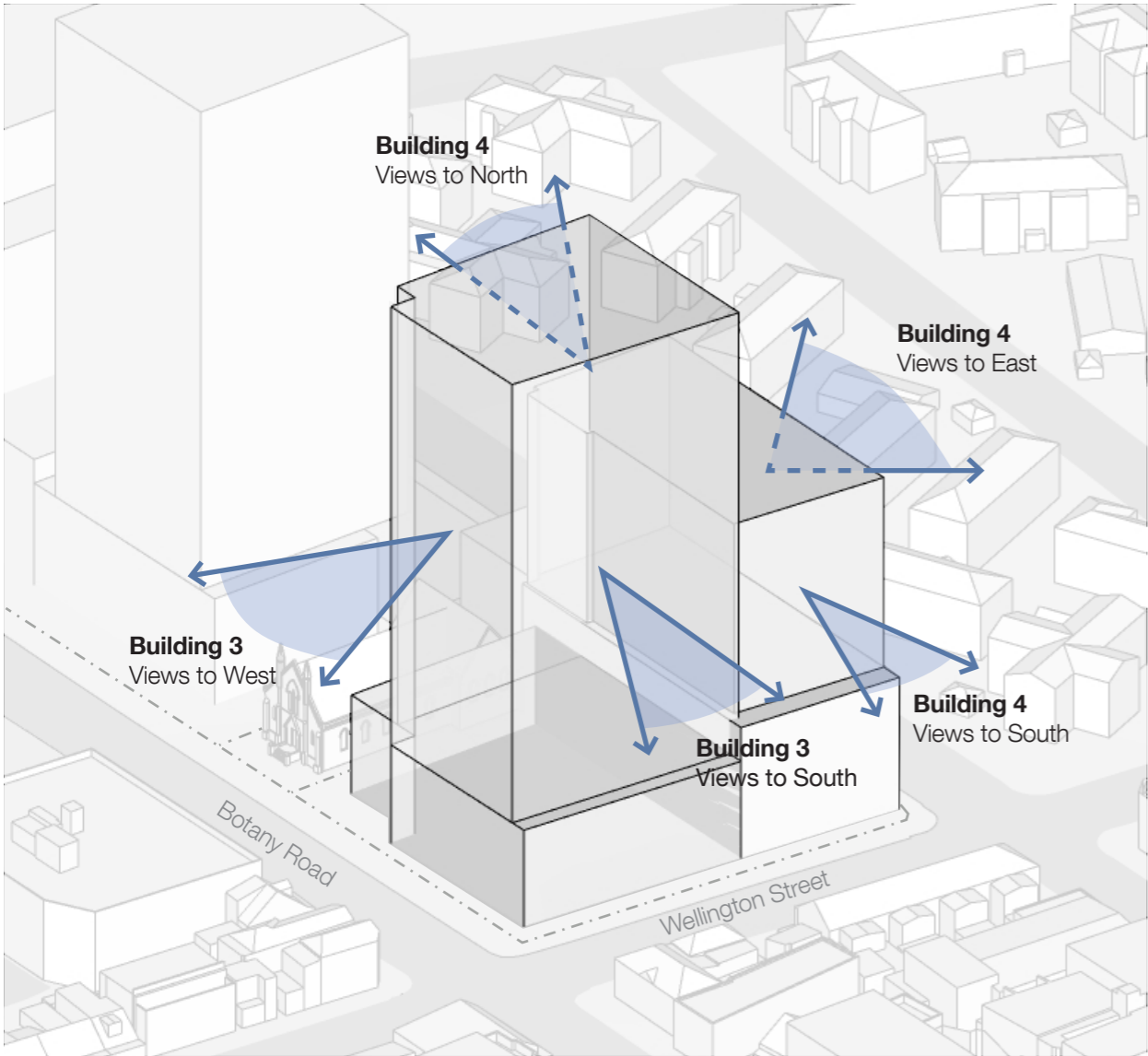


## 4.3 SOLAR ORIENTATION

The **Building 3** site has good solar access to the east and west. Building 2 to the north overshadows the site during the middle of the day from 12pm – 2pm in mid winter and 12pm – 1pm in mid summer. The **Building 4** site has good solar access to the east and north. Building 2 to the north overshadows the site from the early afternoon and limits the potential for the western elevation to receive 2hrs solar access in mid-winter until 3.30pm.

An overshadowing control requires no more than 30% of Alexandria Park (excluding the oval) to be overshadowed by the development at any time after 9am on 21st June. Refer to Appendix E - Urban Design Report and Appendix NN - Overshadowing Analysis for further detail.

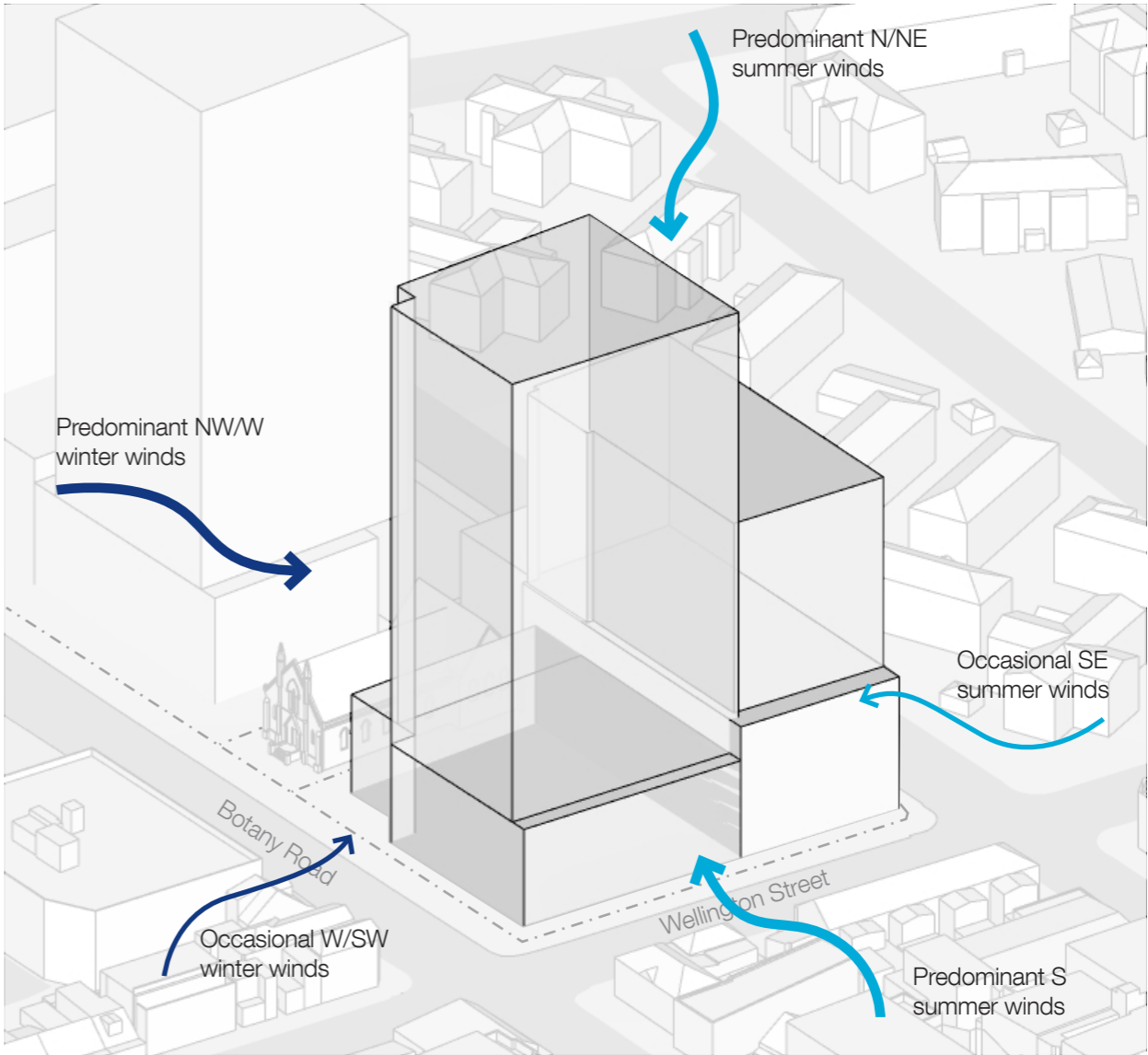
# 4.0 SITE ANALYSIS



## 4.4 VIEWS

Due to the lower scale of the surrounding area, the site has good views to the east, south and west. As the **Building 4** site is elevated above the metro box, it has good district views to the north, south and east, and distant views to the north towards the Sydney CBD skyline.

The **Building 3** site has good views to the west and south, whilst views to the north are limited due to the other towers in the precinct. Building 3 also has potential distant views to Botany Bay to the south from the upper levels.

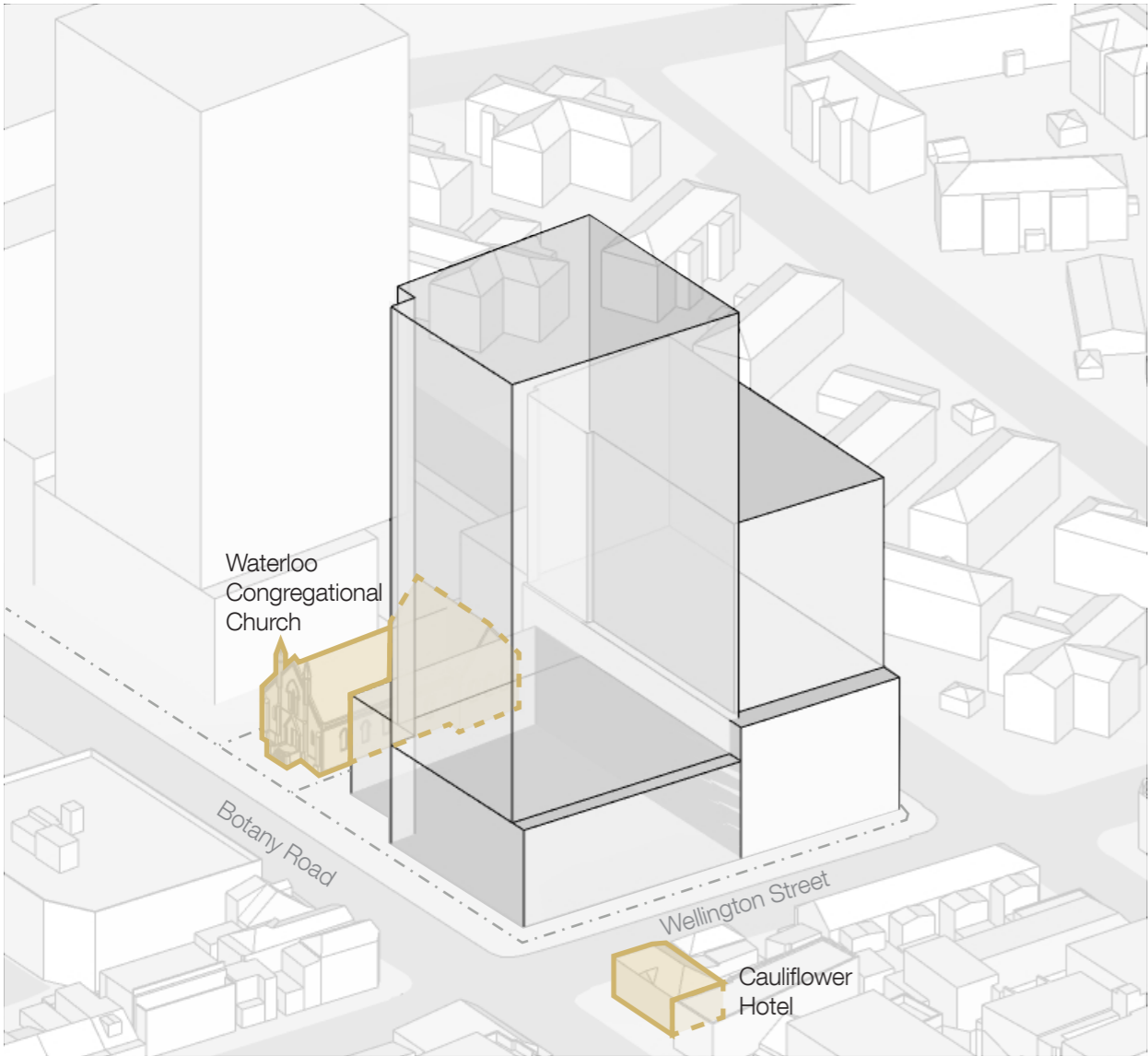


## 4.5 WIND

The prevailing winds across the site varies between summer and winter. During the summer months, winds are frequent from the north-northeast, northeast, south-southeast and south directions. During the winter, winds are most frequent from the west-southwest through northwest directions.

To mitigate adverse wind conditions to the ground plane, localised awnings are recommended, particularly to building entries. Wind mitigation measures in the form of landscaping, screens and awning or pergola structures are recommended to roof terraces.

# 4.0 SITE ANALYSIS



## 4.6 HERITAGE & BUILT FORM CONTEXT

There are two heritage listed buildings in the immediate vicinity of the subject site. To the north of the site is Waterloo Congregational Church, which is accessed via Botany Road but shares an interface with Building 3. To the south of the site on the corner of Wellington Street and Botany Road is the Cauliflower Hotel. For further details of the surrounding built form context, refer to Appendix E - Urban Design Report



**Waterloo Congregational Church**, located to the north of the subject site

*“The Gothic church of rendered brick construction was constructed in 1883 to replace the congregation chapel built in 1865. The symmetrical design of the façade demonstrate high quality architectural traits of the building. It is one of the earliest worship venues in Waterloo.”*

(Source: <https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=2420461>)

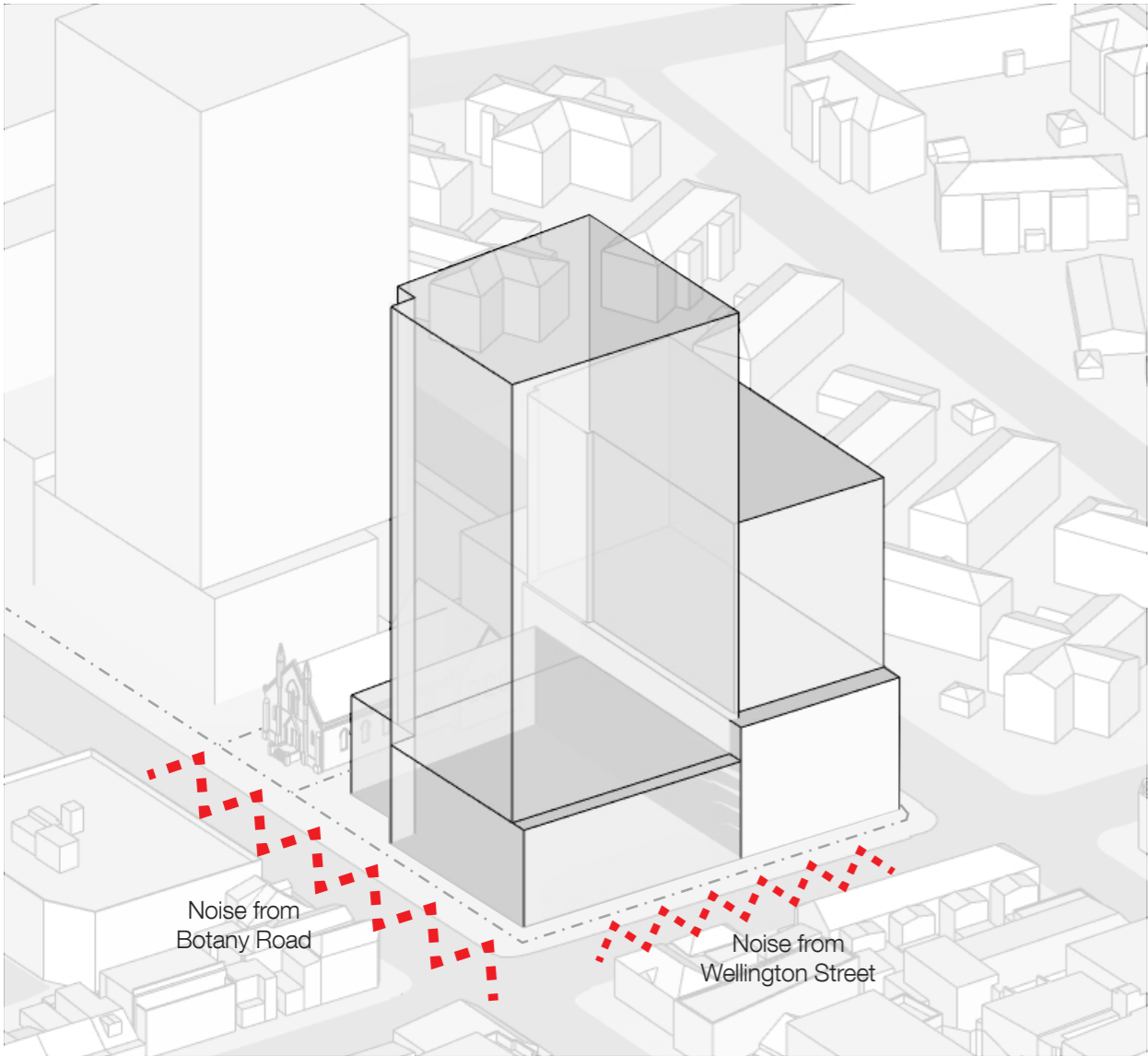


**The Cauliflower Hotel**, located to the south of the subject site

*“The Cauliflower Hotel is a good example of a mid- Victorian hotel in the Georgian style and was built in c1862 by George Rolfe who was a leaseholder and a market gardener. The hotel was under the ownership and operation by the Rolfe family until 1920s, and later by Tooheys and Tooth & Co. The name “Cauliflower Hotel” is associated with former market gardens on the site which were said to be used for cauliflower growing. The hotel has been continually licensed since its establishment. This Georgian style building and the unique cauliflower sign is the landmark on Botany Road.”*

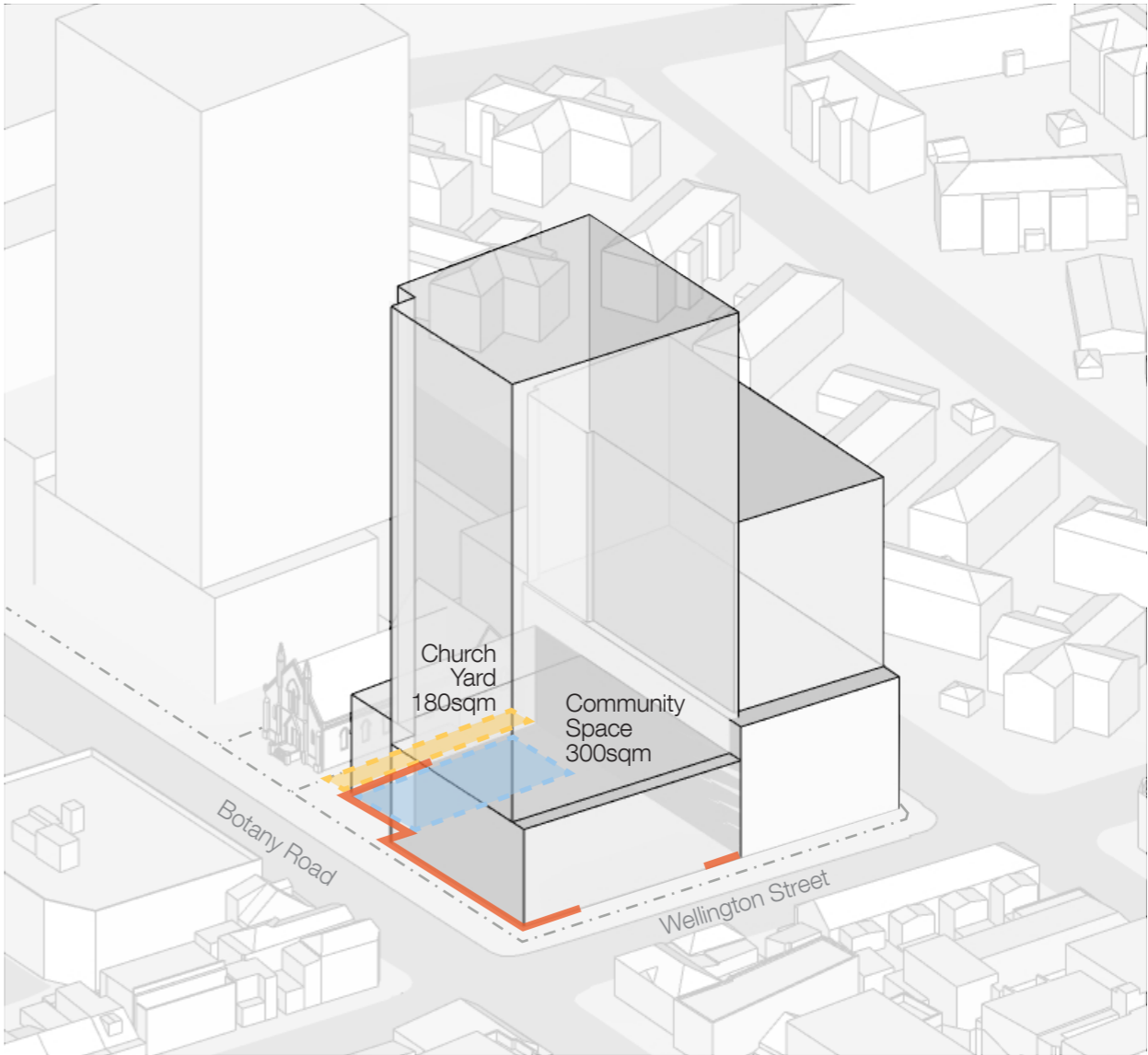
(Source: <https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=2420462>)

# 4.0 SITE ANALYSIS



## 4.7 NOISE

Botany Road presents the primary noise source affecting the subject site. Wellington Street and Cope Street are relatively quieter streets with significantly less vehicular traffic. Acoustic treatments will be required to Building 4 (Social Housing) to ensure the habitable spaces impacted by noise can still achieve natural ventilation. For further details, refer to Appendix K - Noise and Vibration Impact Assessment (Operational and Construction) - (incl. Nat Vent alternate) report.



## 4.8 PROJECT DEVELOPMENT AGREEMENTS (PDAs)

- Church Yard** - The Stage 1 DA masterplan envisages a new public space located between the south of the Church and the north of the Building 3 podium. Referred to as Church Yard, the PDA requires a minimum 180 sqm area and a 6m ground floor setback to be provided.
- Community Space** - A 300 sqm space is to be provided on the ground floor of Building 3 on the corner of Botany Road and the Church Yard public space.
- Active Frontage** - Active frontages are to be provided along the Botany Road frontage, extending around the north to Church Yard and to the southern corner to Wellington Street.