

URBAN DESIGN REPORT

FIVE WAYS CROWS NEST

22 December 2021

Issue A

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01

Introduction

Introduction



Five Ways Junction Crows Nest is a landmark site at the intersection of Pacific Highway, Alexander and Falcon Streets. It sits at the terminus of Willoughby Road and the Crows Nest Village a popular shopping, restaurant precinct and local destination. The site is a short walk from the new Crows Nest Metro station entrance which will soon become an important transportation hub along the \$12.5 billion metro line.

The site lies within the St Leonards and Crows Nest 2036 Plan, a strategic planning document which will facilitate the urban regeneration of St Leonards and Crows Nest as an employment centre and support the growing residential community of the Plan area and the surrounding suburbs. The 2036 Plan is planned to provide additional commercial floor space for employment, new and upgraded open space, mixed-use sites, transport orientated development as well as responding to the local character of the area and protecting heritage conservation areas.

This proposal has been formulated by the project team to embrace the vision, objectives, actions and urban design principles of the 2036 Plan, to create the opportunity for new employment spaces, locally sensitive retail and key-worker and private dwellings with excellent amenity.

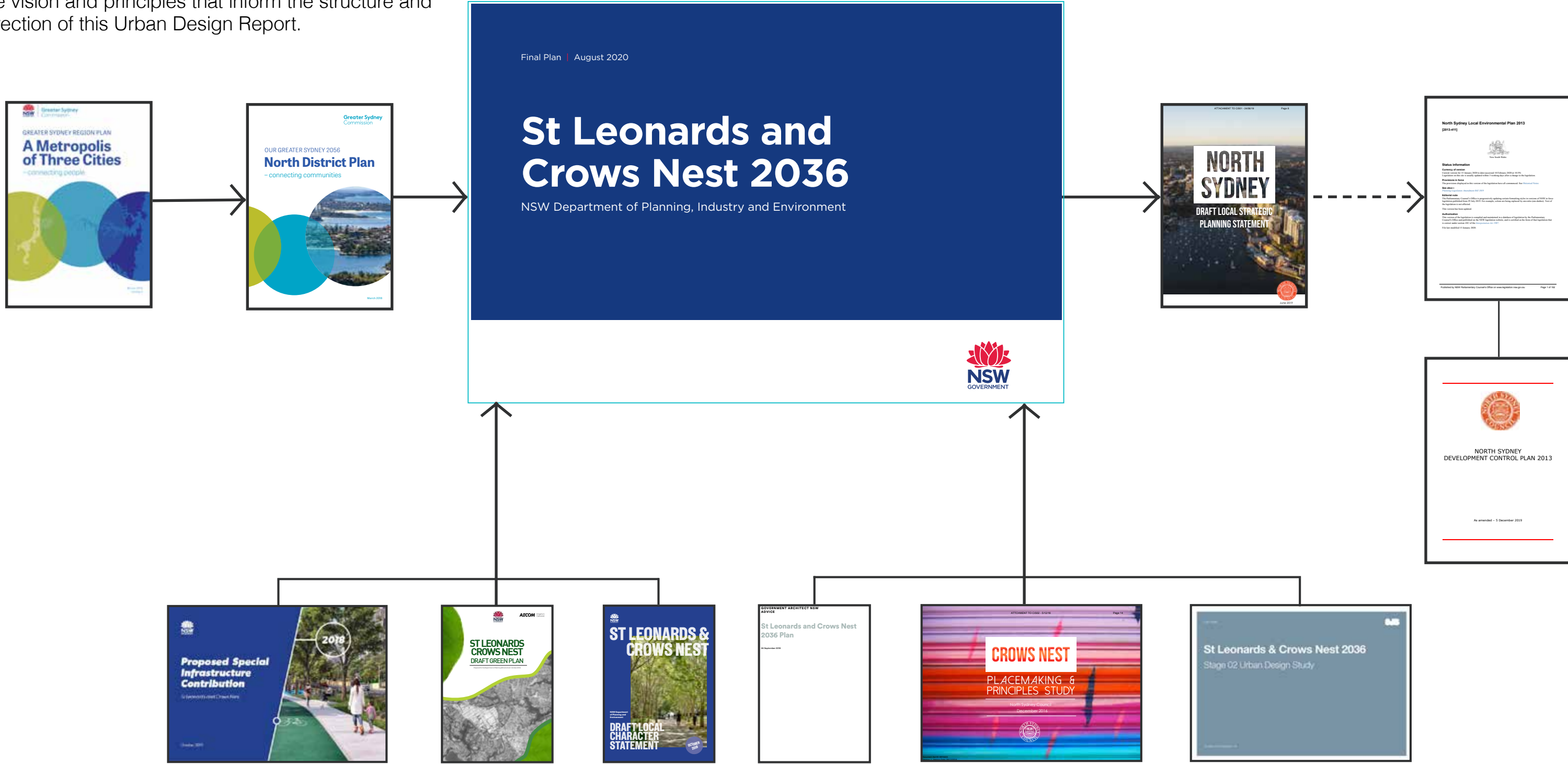
This urban design report documents a rigorous design process that was commissioned to determine the appropriate density, form, arrangement and other design details that will achieve a proposal that is entirely consistent with the 2036 Plan.

02

**Vision, Design
Criteria and Area
Wide Design
Principles**

Planning framework

The planning framework, illustrated here, provides the vision and principles that inform the structure and direction of this Urban Design Report.



Vision, Design Criteria and Area Wide Design Principles

Planning Framework

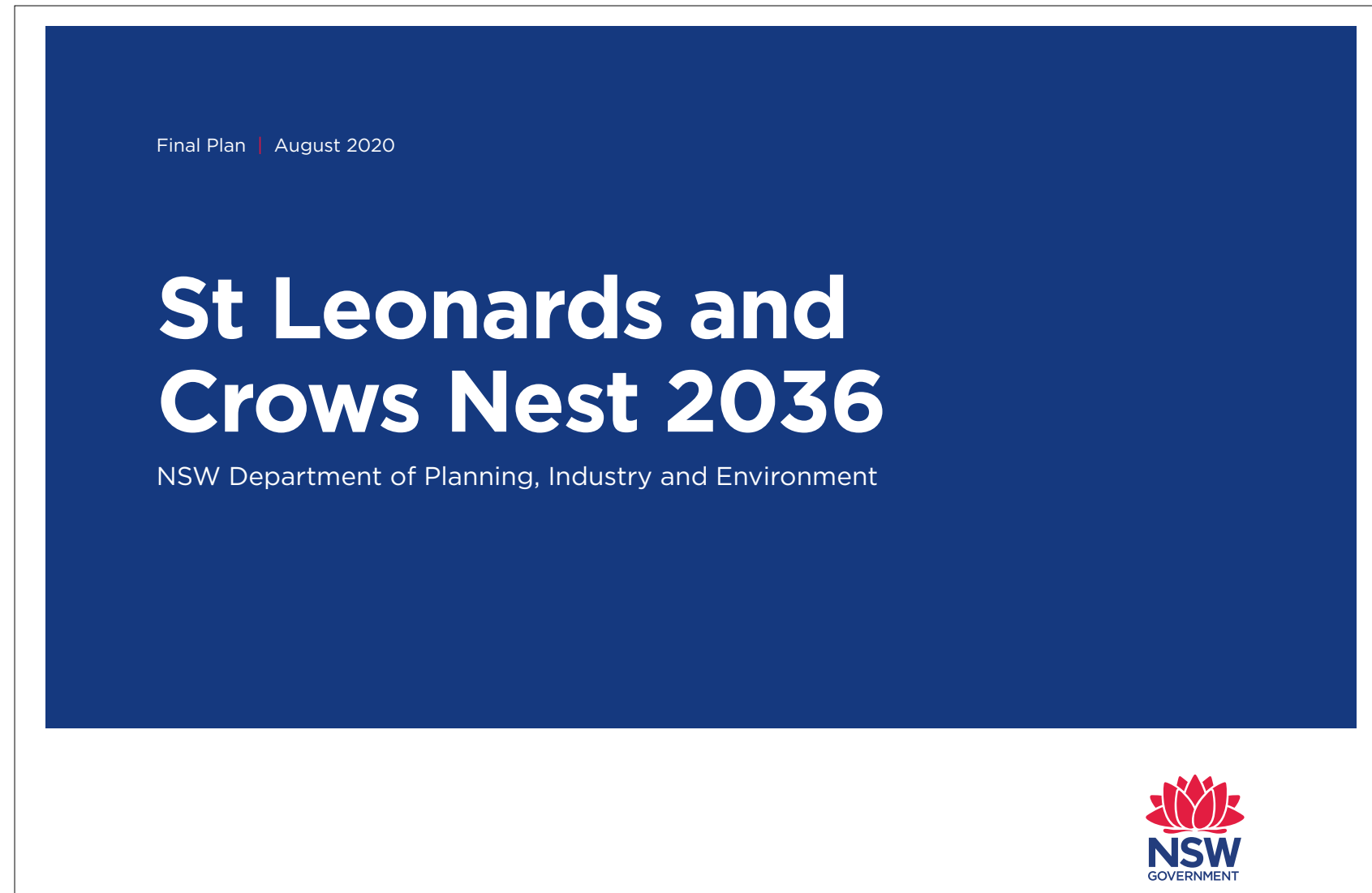
03

The 2036 Plan

The 2036 Plan

The St Leonards and Crows Nest 2036 embeds objectives to achieve positive urban renewal for the area.

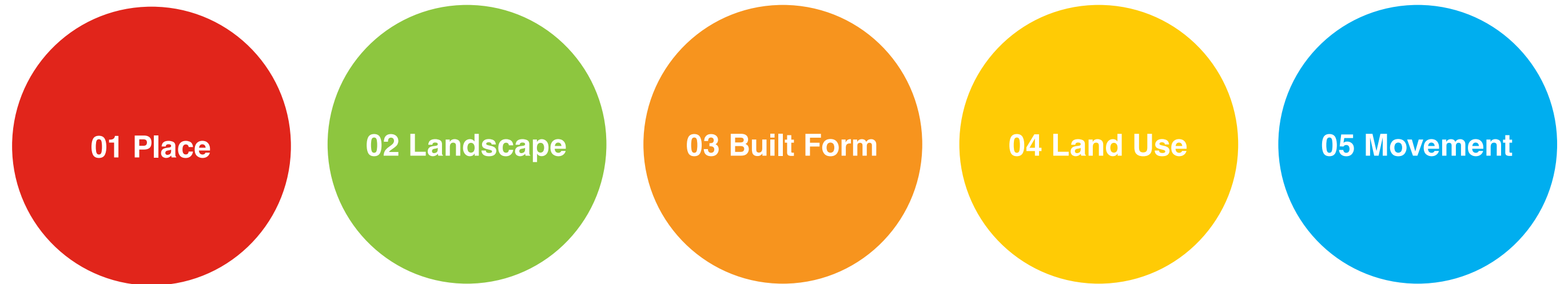
The 2036 Plan informs the following design proposal, reflecting shared objectives to regenerate the district as an employment centre and to grow residential communities while maintaining the existing and distinctive character of Willoughby Road and Crows Nest Village.



The 2036 Plan

The vision and objectives of the 2036 Plan are translated into the five key themes identified as part of the Local Character Statement. They identify actions to realise opportunities for urban renewal within St Leonards and Crows Nest. The five themes are expanded into sub-categories and actions to consider the potential outcomes of the Plan including specific localities and areas.

The following section outlines the five themes and sub-categories and considers the merits and design elements of the proposal in response to the Plan.





Sub Category

Public domain

New development offers opportunities for improvements to public places including plazas, activated laneways and safe and well-designed pedestrian links. The Plan identifies opportunities for new through site links and street-widening using building setbacks.

The Proposal

The current streetscapes and public domain of the site are under utilised and in need of redevelopment. The proposal is designed to provide a significant redefinition of the public domain, creating a streetscape which is activated, variegated and supplemented by public walkways connecting the three streets. The activation of the ground plane is enhanced by the public walkways providing additional frontage for retail tenancies and lobbies. The central section of each street frontage is setback an additional metre to allow space for the bus interchange, street trees, retail activation and outdoor dining. [For further detail, see Sections 08 Design Proposal and 10 Placemaking Strategies.](#)



Heritage and culture

Community feedback has emphasised the significance of local community places on cultural heritage in the area. There is strong value placed on the tree-lined streets and the style, scale and design features of heritage dwellings in these areas.

The proposal adopts a fine grain approach to the ground and podium levels responding to the observed grain, pattern and scale of the Crows Nest Village and the urban grain of the surrounding context. The design of the podium is responsive to the context and particular nature of Crows Nest with a two-step subdivision of the podium mass. The first step is the division by the implementation of two public pedestrian walks that respond to the street grid. The second is a more fine-grain subdivision to provide a scale, pattern and fine-grain response that is similar to the prevailing street wall character. Material selections and detailing provides additional connections to the local character. Towers are setback from the edges of the site to provide a visual distinction from the street. The retail strategy of the proposal is designed to complement the popular and distinctive character of the Crows Nest Village. The idea is to extend the active hub of Crows Nest to the streets south of Falcon Street. [For further detail, see Sections 08 Design Proposal and 10 Placemaking Strategies.](#)



Comfort and safety

New planning controls are recommended to protect solar access to key streets and open spaces during mid-winter to maximise usability and amenity to these places. A focus on improving active streets and pedestrian movement will create a more vibrant streetscape which will contribute to passive surveillance and safer places.

The proposal follows the urban controls outlined in the 2036 Plan adopting building and street wall heights identified in the plan. Shadow analysis tested the solar access to streets, dwellings and heritage conservation areas around the site. The ground plane and podium is designed to activate the ground plane offering new spaces and opportunities for retail and commercial tenancies to connect into the Crows Nest Village. [For further detail, see Sections 08 Design Proposal, 10 Placemaking Strategies and 12 Shadow Analysis](#)





Sub Category

Local economy

Local shops along Willoughby Road and the village character are highly valued amongst the community. The Plan will protect and maintain this village character by retaining the existing planning controls and protecting local retail areas (Ernest Place and Willoughby Road). This village character will also be extended through the identification of Atchison Street as a 'civic street'. The Plan supports more active retail uses on Atchison Street and the role and function of this street as an active space should be enhanced as future rezoning occurs.

The Proposal

Crows Nest Village and Willoughby Road have a special quality that has set the precinct apart in the Lower North Shore for many years.

The village has an active retail street that is popular for local residents and encourages visitors from further afield to enjoy the unique restaurants and night life. The proposal is designed to complement the local character and retail streets with a range of tenancy sizes suitable for different operators, activated streets, and a flexible ground plane.

The street wall and podium of the proposal is located between three streets each exhibiting a wide range of different building heights. The design of the podium responds to this context by dividing the mass with two public, pedestrian walks and then further into smaller divisions which are composed architecturally to achieve a fine-grain and context-sensitive response. The new public walks work with the existing urban grid and prompt the potential of new connections to the east.

The proposal seeks to activate and regenerate the streets adjacent to the site and extend the vibrancy and activity of Crows Nest Village to the precinct south of Falcon Street.

For further detail, see Sections [08 Design Proposal](#), [10 Placemaking Strategies](#) and [13 The Vision](#).

The 2036 Plan



Actions



Investigate opportunities for improved connections to the health and education precinct.

The Proposal

The proposal is situated nearby the Mater Hospital and local schools. Podium retail and commercial space would be suitable for tenants connected with these institutions. Additional dwelling supply, including much needed Key-worker housing, contributes to the supply and diversity of housing supply and broadens the accessibility to the area for new residents and young people.



Retain the current heritage status in existing planning controls.

The proposal is designed to respond positively to the heritage assets and conservation areas in the vicinity of the site. The key responses of the proposal are the fine-grain approach to the street wall, the extension of the local street-grid through the site with pedestrian walks, and the extension of the vibrant and street activated retail character of Crows Nest Village.

For further detail, see Section 08 Design Proposal.



Transition heights from new development to surrounding Heritage Conservation Areas.

The proposal follows the urban design principles of the 2036 plan where taller buildings and density are located in close proximity to metro stations and the Pacific Highway. A taller form is located at the Five Ways intersection which acts a gateway element into the Precinct. Mixed-use sites adjacent to the site assist to provide transitory heights to the surrounding lower-scale residential areas.

For further analysis, see Section 07 Program Options.



New development should adopt the street wall height consistent with existing heritage shopfronts for new buildings in the same street.

The 2036 Plan nominates a 3-storey street wall. The street wall pattern responds to the context where 3- and 4-storey buildings are observed. The proposal is consistent with the plan adopting the 3-storey street-wall height which is variegated similar to the pattern of shop-top development in the area

For further detail, see Section 15 Indicative Plans - Sections & Elevations



Maintain current planning controls along Willoughby Road to retain its village feel and character.

The proposal is located near the southern end of Willoughby Road and is consistent with the 2036 Plan massing as a gateway element for the precinct. The ground plane approach is designed to extend the activation and vibrancy of the Crows Nest Village to the precinct south of Falcon Street

For further detail, see Sections 08 Design Proposal and 13 The Vision



The 2036 Plan



Actions



Maintain current planning controls along Willoughby Road to retain its village feel and character.

The Proposal

The proposal allows additional workplace, retail and dwellings to be provided in close proximity to the new Metro Station while maintaining the current planning controls to Willoughby Road. The proposal also provides a Gateway element to the precinct.
For further detail, see Sections 08 Design Proposal and 10 Placemaking Strategies.

Improve the public domain by introducing 'green streets' along Oxley, Mitchell, and Chandos Streets to allow for setbacks with grass and canopy trees.

Not applicable to this proposal

Investigate inclusion of shared zones along Clarke Lane including the provision of traffic calming measures.

Not applicable to this proposal



New development should consider its place within country, including Aboriginal heritage by (at least) consulting with the Metropolitan Local Aboriginal Land Council.

The proposal anticipates an aboriginal heritage and consideration of country process through the detailed design stage. The proposal outlines a public art strategy which might form a component of the indigenous interpretation strategy.



Widen key streets (including Atchison Street) to support more active uses and allow for green elements e.g. planter boxes.

Although the 2036 Plan indicates a 0m setback to the three street frontages of the site, the proposal includes an additional setback in the mid-section of each block to allow additional tree planting, space for the bus interchange and opportunities for street retail and outdoor dining.
For further detail, see Sections 05 Design Proposal and 15 Indicative Plans.

01 Place



Actions

Public open space
High quality and variety of public open spaces is valued highly within the community. The Plan is supported by a Green Plan which identifies open space opportunities for implementation as part of this Plan and aspirational, long term projects for future investigation.

The Proposal

The proposal is designed to allow the integration of landscape into the building form. The ground plane and public domain include integrated landscape components and allow space for street trees.
For further detail, see Section 10 Place Making Strategies.



Tree canopy
A key aspect of the Plan is to retain and enhance the existing network of tree lined streets.

As part of the place making strategy, a tree canopy index place metric is adopted to encourage and optimise tree canopy to soften the highly urban setting of the existing site.
For further detail, see Section 10 Place Making Strategies.



Topography
The steep topography in parts of the area is integral to its character. The Plan identifies opportunities to work with the grade of the land to achieve improve use of open spaces and capture views towards the city.

The proposal responds to the topography of the site, using the grades to minimise basement ramps and vehicle entries. The falls on the site are designed to allow fully accessible routes to all retail tenancies, commercial and residential lobbies.
For further detail, see Section 15 Indicative Plans..



Natural environment
Connections to the natural environment are critical in dense urban areas. The area has both formal and informal landscape elements that provide this connection to the natural environment.

The proposal is located in a highly urbanised setting. An integrated landscape approach, including additional setbacks to the street frontages and planting on structures and roof gardens, provides an enhanced green-view index and visual relief from the existing built-up and urbanised character of the area.
For further detail, see Section 10 Place Making Strategies.





Actions

Leverage the improved amenity and connectivity opportunities from Lane Cove Council's proposed St Leonards Plaza, through:

- Investigate improvements for pedestrian crossings of Pacific Highway.
- New/improved connections to the regional pedestrian cycling link.
- Support for investigation of an indented bus stop as part of the plaza.
- Support for links to recent and proposed development either side of Council's future St Leonards Plaza.

The Proposal

Not applicable to this proposal.

The proposal adopts a similar strategy of permeability, connectivity and providing additional space for more intensive public areas such as bus stops.



Protect and enhance natural links through the area. Refer to final Green Plan.

The local street grid is extended through the site through the implementation of two new pedestrian walks connecting the three street frontages. The new walks enhance visual permeability and create spaces for landscape and public art.

For further detail, see Sections [08 Design Proposal](#) and [10 Placemaking Strategies](#).

Work with North Sydney Council to redevelop Holtermann Street carpark by bringing forward development contributions.

Not applicable to this proposal

Investigate opportunities to upgrade Hume Street Park consistent with North Sydney Council policy.

Not applicable to this proposal



Introduce landscaped street setbacks along Oxley, Mitchell, and Chandos Streets to allow for additional street trees.

Not applicable to this proposal

The proposal includes areas with additional ground floor setbacks to allow for street trees and landscaping along the three street frontages.



Maintain and expand tree canopy in St Leonards South to meet tree canopy target for the area identified at page 3. Investigate opportunities to expand Newlands Park and new public park in St Leonards South

The proposal includes mid-block setbacks to allow street trees along the site frontages
For further detail, see Section [08 Design Proposal](#).

A tree canopy index is adopted as a place measure for the site. The proposal is designed to bring additional spaces for landscape and tree canopy cover in a highly urbanised setting.

For further detail, see Sections [08 Design Proposal](#) and [10 Placemaking Strategies](#).



The 2036 Plan

Urban Design Principles

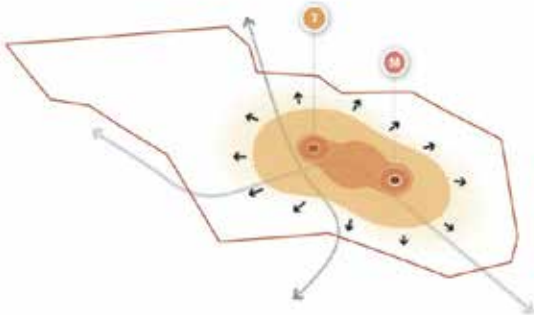
The proposed built form controls and actions are informed by key urban design principles. These principles form the design criteria which should be considered for future development in the area.

The Plan



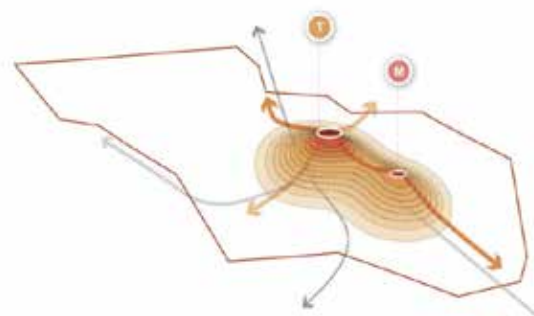
Proximity to Stations – Epicentre

Density is located close to a transport hub such as St Leonards Station or the Crows Nest Metro Station. Taller buildings are to be located within 150-200m of either station and transition in height to the surrounding areas



Centre and Height Transition Height ‘Knuckle Area’

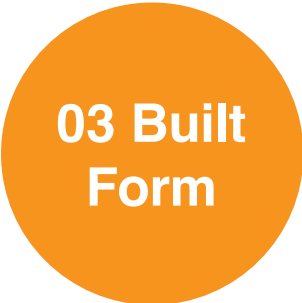
St Leonards is to be read as the predominant centre to reinforce its commercial role and Crows Nest as a secondary lifestyle destination. Large developments are to be located between the stations and transition in height, bulk and scale from the highway to the surrounding neighbourhood areas. The focus of height is referred to as the ‘knuckle area’ within St Leonards mixed use commercial core.



The Proposal

The 2036 Plan identifies sites in close proximity to the stations for taller buildings, particularly in the range of 150-200m. The Five Ways site is located approximately 240m from the new Crows Nest Metro station entry in Hume Street. The location of the site provides excellent amenity for the retail, commercial and residential components of the building with Crows Nest Village and Metro a short walk away.

The proposal is consistent with the 2036 Plan guidelines for height and urban massing. The Plan identifies the areas around St Leonards and Crows Nest Stations as the dominant features of the urban landscape with building heights of 50- and 27-storeys respectively. The Plan identifies additional sites for taller building heights around the Five Ways Crows Nest site with a cluster of buildings shown along the Pacific Highway with building heights of 13- to 17-storeys. The The Five Ways island site, in particular, has a taller building height to provide a gateway element for Willoughby Road and Crows Nest Village. The height in this precinct also facilitates additional density closely linked to the amenity of the Crows Nest Village and Metro Station without affecting solar access to Willoughby Road and the Village.

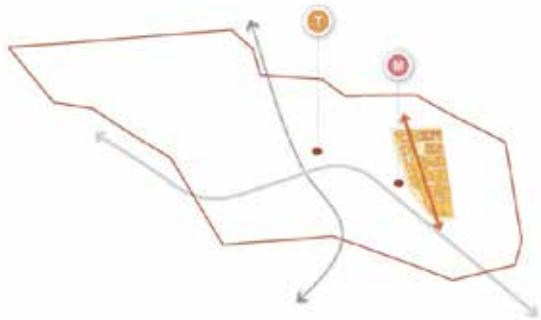


The Plan



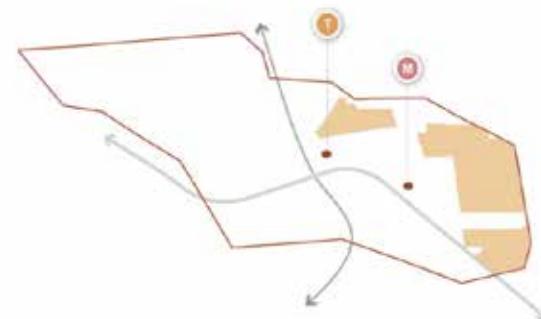
Maintain Willoughby Road

Willoughby Road is an important place within the Plan area that is to be protected. New development is to ensure minimal overshadowing and avoid unreasonable visual impact to the public domain.



Reduce Impact on Heritage Conservation Areas

Heritage Conservation Areas are to be protected. New development nearby is to ensure minimal overshadowing and avoid unreasonable visual impact to the public domain or private open spaces of dwellings within these areas.



The Proposal

The proposal is consistent with the 2036 Plan allowing Willoughby Road to be protected and additional height and density to be located in close proximity to the Crows Nest Village and Metro without additional overshadowing of the retail precinct. The proposal is also designed to extend the distinctive character of Willoughby Road south of Falcon Street to regenerate the area as a retail destination and employment area.

For further details, see Section 12 Shadow Analysis.

The proposal is consistent with the 2036 Plan. Solar analysis tested the extent of mid-winter overshadowing of the proposed form to demonstrate compliance with the Plan. The fine-grain approach to the podium is designed to link to the character, massing and rhythm of the High-Street retail urban grain.

For further details, see Section 12 Shadow Analysis.



The Plan



Expand Open Space Network and Protect Amenity

Investigate opportunities to provide additional open space in the Plan area. New developments are not to cause unacceptable overshadowing to any key existing or proposed public open spaces.



Response to Character Area

New development must respond appropriately to built form character of sub-precincts, including height, bulk and scale, as well as the existing and proposed uses.



The Proposal

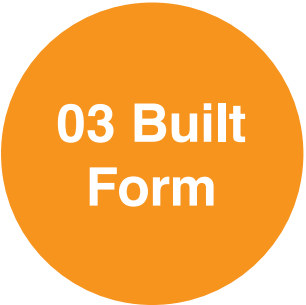
The proposal includes two pedestrian walks connecting the three street frontages and providing enhanced visual permeability through the site. The proposal also includes an integrated approach to landscape, green view and canopy cover place-metrics.

Like the existing Crows Nest Village, the streetscapes of the proposal are designed to be vibrant and activated and allow retail tenancies to open-out to the public domain.

For further detail, see Sections 08 Design Proposal and 10 Placemaking Strategies.

The proposal is consistent with the 2036 plan adopting the street wall height common in the vicinity and a building height responding to the solar access controls to areas around the site and outside of the 2036 Plan area.

For further detail, see Sections 08 Design Proposal and 10 Placemaking Strategies.



The Plan



Transition between Character Areas

The interface between two-character areas should respond to the adjacent character area to create an appropriate transition.



Fine Grain Approach

New development should consider its relationship to surrounding context and urban grain, while seeking to provide improved accessibility through appropriate frontage treatment and provision of arcades, laneways, and enhanced public domain.



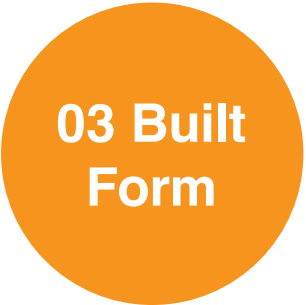
The Proposal

The proposal seeks to improve the vibrancy and activation of the retail streets located south of Falcon Street. Following the indicative heights of the 2036 plan, the proposal brings new retail, workplace space and residents into the area.

For further detail, see Sections 08 Design Proposal and 10 Placemaking Strategies.

The proposal embraces a fine-grain approach seeking to mediate the overall form through the introduction of pedestrian walks through the site, articulation of massing and material detailing.

For further detail, see Sections 08 Design Proposal and 10 Placemaking Strategies.





The Plan

Density

St Leonards and Crows Nest will continue to grow as an employment centre over the next 20 years.

Transitions and interfaces

New development presents an opportunity for well-designed interfaces to sensitive places within the area.

Height

A height expectation of taller buildings (up to 50 storeys) between the St Leonards and Crows Nest stations has already been set by recent approvals along the Pacific Highway between Oxley Street and Herbert Street.

Solar Access

Retaining solar access to public open space, valued streetscapes, and residential areas is a key objective of the Plan. Solar access controls – are outlined in the Solar Access Map.

The Proposal

The proposal responds to the vision of the 2036 Plan to regenerate the district as an employment centre over the next 20 years.

The site has excellent amenity afforded by the proximity to Crows Nest Village and the Metro Station. The density outcomes of the proposal were explored within the height expectations of the 2036 Plan.

For further detail, see Sections [08 Design Proposal](#) and [10 Placemaking Strategies](#).

The Five Ways intersection is characterised by mixed-use buildings with predominantly ground floor retail on both sides of the streets. Away from the retail High-Streets, subsequent blocks transition into lower-scale residential areas.

The proposal is located in the island site at the intersection of the three main roads allowing additional height and density indicated by the 2036 Plan to transition to the nearby residential zones.

The 2036 Plan identifies the strategic location of the Five Ways site as a gateway element to Willoughby Road and Crows Nest Village. The proposal is consistent with the indicative height identified in the plan.

For further detail, see Section [08 Design Proposal](#).

The proposal includes solar access analysis and is consistent with the principles identified in the 2036 Plan

For further details, see Section [12 Shadow Analysis](#).



03 Built Form



Public open space

High quality and variety of public open spaces is valued highly within the community. The Plan is supported by a Green Plan

The Proposal

As the location of the proposal is within a highly urbanised precinct, the proposal adopts a strategy of street activation, integration of landscape and a fine-grain urban in response. For further detail, see Sections [08 Design Proposal](#) and [10 Placemaking Strategies](#).



The 2036 Plan



Actions



Deliver a transit-oriented development at the Crows Nest Metro Station sites.



Apply design principles for solar amenity, configuration, and interface between areas of transition.



New development should be sympathetic to existing buildings with appropriate setbacks and street wall height (pages 69 and 70).

Adopt reverse setbacks and active street frontages to improve the interface between new buildings and the public domain along Atchison Street and Clarke Lane

Provide stepped setbacks for properties on the south side of Henry Lane to provide a sympathetic interface with Naremburn Heritage Conservation Area.



Provide appropriate transitions in height to adjoining low scale residential areas.



Minimise overshadowing of key open spaces, public places and adjoining residential areas. Solar height planes should be adhered to as indicated within the Solar Access Map (page 38).



Provide transitions in height from the lower scale development at Willoughby Road, Crows Nest, to tall buildings in the St Leonards Core.

The Proposal

The proposal is consistent with the 2036 Plan vision to facilitate the renewal of St Leonards and Crows Nest as a regenerated employment centre. In its immediate context, the proposal seeks to extend the vibrancy and activation of Crows Nest Village to the precinct south of Falcon Street. The residential component of the proposal provides dwellings within walking distance of the Metro station.

The proposal includes solar access analysis and is consistent with the principles identified in the 2036 Plan
For further details, see Section 12 Shadow Analysis.

The proposal is consistent with the action for setbacks and streetwall
For further detail, see Section 08 Design Proposal.

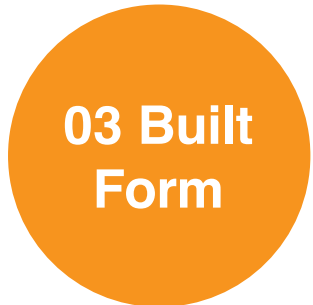
Not applicable to this proposal

Not applicable to this proposal

The proposal is located in the island site at the intersection of the three main roads allowing additional height and density indicated by the 2036 Plan to transition to the nearby residential zones.

The proposal is consistent with the overshadowing actions.
See Section 12 Shadow Analysis.

The proposal is located in the island site at the intersection of the three main roads allowing additional height and density indicated by the 2036 Plan to transition to the nearby residential zones.





Actions

Adopt objectives from the Government Architect NSW's Evaluating Good Design Policy in the drafting of new planning provisions.

The Proposal

The proposal responds positively to the seven objectives of the Evaluating Good Design Policy. The rationale is outlined in following sections as the design concept for the proposal is explained. The proposal also responds to a specific study by the Government Architect NSW of the Five Ways site. This study considered the option of a considerable uplift to height and density of the site with attention to the visual outcomes in the area. An analysis of the visual impact of the proposal is included as part of the report.

For further detail see Section 13 View Analysis

Provide a landscaped front setback to Oxley Street between Clarke and

Not applicable to this proposal

Chandos Streets to encourage a sensitive interface to areas east of Oxley Street.

Not applicable to this proposal





Education

There are currently 25 education facilities within close proximity to the plan area (Figure 17).

The Local Character Statement identifies an importance to the local community to see more schools and education facilities in the area to support the growing community. The NSW Department of Education is actively investigating new early childhood, schools and tertiary education facilities in the precinct.

The Proposal

The proposal is consistent with the support of educational uses in close proximity to the site. Commercial spaces could be tenanted by educational support services and Key-worker housing may be suitable for educational staff.



Community facilities

There are opportunities for additional community meeting places, libraries and schools within the Plan area.

The proposal is consistent with the delivery and activation of community facilities in the precinct. The inclusion of key-worker housing is positive for diversity and community need.



Housing

The Local Character Statement identifies a desire to see more affordable housing and a greater variety of housing types in the area.

The development contributes to a range of dwelling types adaptable to cater for all life cycles. The inclusion of key-worker housing is consistent with the aims of the Plan.

For further detail, see Sections [08 Design Proposal](#) and [15 Indicative Plans](#).



Emerging Land Use Build-to-Rent

Build-to-rent housing is purpose-built rental housing, held in single ownership and professionally managed. It is designed to attract institutional investment and provide for a more stable rental sector.

The proposal includes a component of key-worker and private dwellings. Build-to-rent housing is not currently proposed for the site.



04 Land Use



Retail

Retail and leisure activities in the area are varied and reflect the area’s diverse character. The Plan supports the retention and expansion of the boutique retail and hospitality character of the area.

The Proposal

The proposal contains a diverse mix of uses including retail, commercial, civic/community and residential. Retail and commercial spaces allow flexibility for different tenants and operators including pop-up retail. These retail tenancies and commercial spaces are configured to complement existing spaces in the area in order to emphasize the local aspect.

For further detail, see Section 08 Design Proposal.



Health

The area is well serviced by existing health infrastructure, The Plan proposes the following measures to promote jobs growth in the health sector

The proposal is consistent with the support of health related uses in close proximity to the site. Commercial spaces could be tenanted by health services and Key-worker housing may be suitable for staff.



Employment

The Greater Sydney Region Plan identified the following employment opportunities for the growth of the area

The development fosters new employment hubs to a range of business types and sizes. It delivers active streets by providing a range of potential uses at ground floor with additional setbacks to allow outdoor dining and retail out-go trading zones. The ground floor and podium provides 8,000m² of retail and commercial floorspace in commercially attractive and flexible floor plates not currently available in the precinct ranging in size from 300m² to 2,500m².



The 2036 Plan

Actions

The Proposal



Investigate further opportunities to strengthen the health and education precinct including the identification of education pathways through TAFE and other institutions, physical connection to support collaboration and identify opportunities to share new and existing facilities.

Not applicable to this proposal



Commit SIC funding to provide infrastructure that caters for all age demographics including pedestrian and cycle links and parks.

Refer to Design Proposal: Urban Design Ground Plane Pedestrian, Vehicular, Servicing Principles & Public Walks



Include opportunities through amendments to planning controls to encourage a range of dwelling typologies to cater for the diverse community in St Leonards and Crows Nest.

Refer to 04 Land use - Housing



Concentrate higher density housing along the Pacific Highway between the St Leonards Station and Crows Nest Metro Station and transition to lower density living options in the surrounding area.

Refer to 03 Built Form - Transitions and interfaces



Encourage a mixture of densities in St Leonards South.

Not applicable to this proposal



Undertake investigations to identify an appropriate target for affordable housing in the area, consistent with each Councils affordable rental housing target schemes.

The proposal includes a component of key-worker housing to assist Council in their target schemes.



Explore build-to-rent opportunities within the precinct.

Not applicable to this proposal



Encourage a balance of commercial and residential uses within the St Leonards Core with a minimum non-residential floor space requirement for the B4 Mixed Use zone to meet North District Plan high jobs target.

See Section 08 Design Proposal: Urban Design Podium & Tower Development Metrics



The 2036 Plan



Actions

Permit mixed-use development on key sites to encourage the renewal of St Leonards through the delivery of new A-grade commercial floor space (page 65).

Retain B3 Commercial Core zone on appropriate sites to maintain future viability of the St Leonards Core (page 65).

Protect and manage the Artarmon Employment Area.

Enable flexibility in planning controls to consider innovative and complementary health and education related uses on a site by site basis within the Artarmon Employment Area and health and education precinct.

Investigate new early childhood, schools and tertiary education facilities in the Precinct, supported via SIC funding.



Investigate introduction of Complying Development Provisions for cafes, restaurants and retail with extended trading hours.

Ensure land is available at Royal North Shore Hospital for future expansion of health uses.



Encourage the location of additional retail in the St Leonards Core and Crows Nest Village rather than the Artarmon Employment Area.

Support investigations into the Herbert Street Precinct to provide new health services, affordable and key worker housing and additional education facilities.

The Proposal

See Section [08 Design Proposal: Urban Design Podium & Tower Development Metrics](#)

Not applicable to this proposal

Not applicable to this proposal

Not applicable to this proposal

Not applicable to this proposal

See Section [10 Placemaking Strategies: Loveable Places 18 Hour City](#)

Not applicable to this proposal

See Section [08 Design Proposal: Urban Design Podium & Tower Development Metrics](#)

Not applicable to this proposal



04 Land Use



Public transport
Supporting public transport is critical in ensuring the effective growth of St Leonards and Crows Nest as a strategic centre. The existing community relies heavily on public transport routes as reflected in Figure 24 and Figure 25, which show that a large proportion of residents utilise public transport



Active transport
The Local Character Statement identifies that many community members walk or cycle around the area. The North Shore has one of the highest walking mode shares in Sydney at over 25 per cent. The Plan seeks to strengthen walkability and cycle connectivity within the precinct.



Parking
Availability and accessibility for parking is correlated with traffic generation. Limiting parking and/or identifying a cost for parking can influence private vehicle demand, reduce congestion and reinforce sustainable travel goals by facilitating mode shift towards active and public transport modes.



Road network
The proposed changes to transport infrastructure for the precinct have been modelled within future year 2026 and 2036 scenarios to confirm if these can be supported in conjunction with the forecasted increase in travel demand. The majority of these upgrades are feasible in both the 2026 and 2036 scenarios.

The Proposal

The proposal is strategically located, approximately 240m from the Hume Street entrance to the Crows Nest Metro station. The proposal is designed to support the regeneration of the Crows Nest area to connect and expand the active and vibrant destination by regenerating the High-Streets particularly to the south of Falcon Street and providing workplaces and dwellings adjacent to the amenity of the Village and transportation. *For further detail, see Section 08 Design Proposal.*

The new development contributes to the improvement of the walking and cycling network in the area by allowing public walks connecting the three street frontages (Pacific Highway, Falcon and Alexander Streets). These public walks also improve safety for pedestrians, increased area for the existing major bus stop, and opportunity for retail tenancies to open out to the public domain. *For further detail, see Section 08 Design Proposal.*

The development encourages the use of public transport by being located close to the new Metro and also by allowing for innovative solutions such as car sharing. *For further detail, see Section 08 Design Proposal.*

A traffic study, included as part of the proposal, considers the affect of the development on existing and future traffic networks. *For further detail, refer to the Traffic Report submitted as part of the proposal.*





Actions

✓ Provide clear, continuous and direct pedestrian and cycle routes to priority destinations such as St Leonards Station and surrounding commercial core, the future Crows Nest Sydney Metro Station, Royal North Shore Hospital and St Leonards TAFE.

✓ Investigate footpath improvements

✓ Investigate cycle path improvements:

Deliver a regional pedestrian and cycling link to connect the area and regional open space.

✓ Improve pedestrian crossings

Undertake road network improvements

Provide a pedestrian and cyclist extension from the Herbert Street bridge to improve east west connectivity.

Limit the amount of car parking provided for new developments.

Subject to further investigations, provide funding of a right hand turn only movement from the Pacific Highway to Oxley Street for south bound traffic to reduce traffic in St Leonards Core created by the current limitation on this movement.

Improve pedestrian and cyclist comfort with tree lined streets along Reserve Road, Westbourne, Herbert, and Frederick Streets.

Promote the provision of end of trip facilities to support cycling.

✓ Encourage the use and implementation of car share facilities.

The Proposal

Refer to 05 Movement - Public & active transport

The proposal includes additional setbacks designed to improve the pedestrian experience on the three site frontages.

See Sections [10 Placemaking Strategies: Loveable Places](#), [Footpath Width and Pedestrian Microclimate](#).

Refer to 05 Movement - Active transport

Refer to 05 Movement - Active transport

Not applicable to this proposal

The proposal follows the North Sydney DCP parking requirements.

Not applicable to this proposal

N/A

N/A

The proposal includes car sharing facilities.

See Sections [10 Placemaking Strategies: Conscious Mobility](#), [Mobility on Demand](#), [Network - Optimised Access to Car Share](#)

**05
Movement**

Proposed planning controls

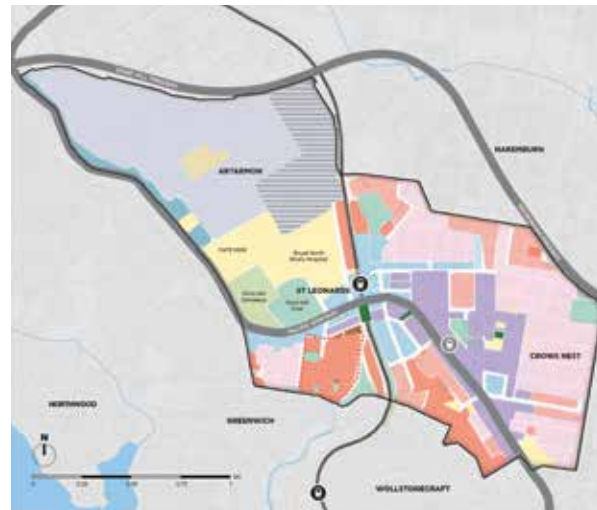
The proposed planning controls are outlined in the the 2036 Plan to understand the changes from the existing controls.

The following diagrams are sourced from pages 64-67 of the St Leonards and Crows Nest 2036 Plan. Analysis of how the proposal responds to the revised planning controls are listed in the 'response' section below.

Areas of Change



Land Zoning



Building Height



Floor Space Ratio



Response:

- Control: The site is zoned as 'Recommended Changes to Planning Controls'.
- The site is identified as appropriate for changes in zoning, density and degree of significance as a local landmark.

- Zoning: B4 Mixed Use
- Proposed Programme:
 - Retail
 - Commercial
 - Residential
 - Basement Parking

- Indicative Building Height: 16-Storeys
- Building Height consistent with protection of sunlight to residential areas
- The proposed envelope is sensitive to the protection of sunlight for existing residential and Heritage Conservation Areas.
- The proposed height is compatible with the transition and local clusters of tall buildings at St Leonards, North Sydney and the future density of the Crows Nest OSD.

- Design Study consistent with Urban Design Principles approximately FSR 5.8:1 (including commercial FSR of 2.5:1)

Proposed planning controls

The diagrams are sourced from pages 64-67 of the St Leonards and Crows Nest 2036 Plan. Analysis of how the proposal responds to the revised planning controls are listed in the 'response' section below.

Minimum Non-Residential FSR



Street Wall Height



Setbacks

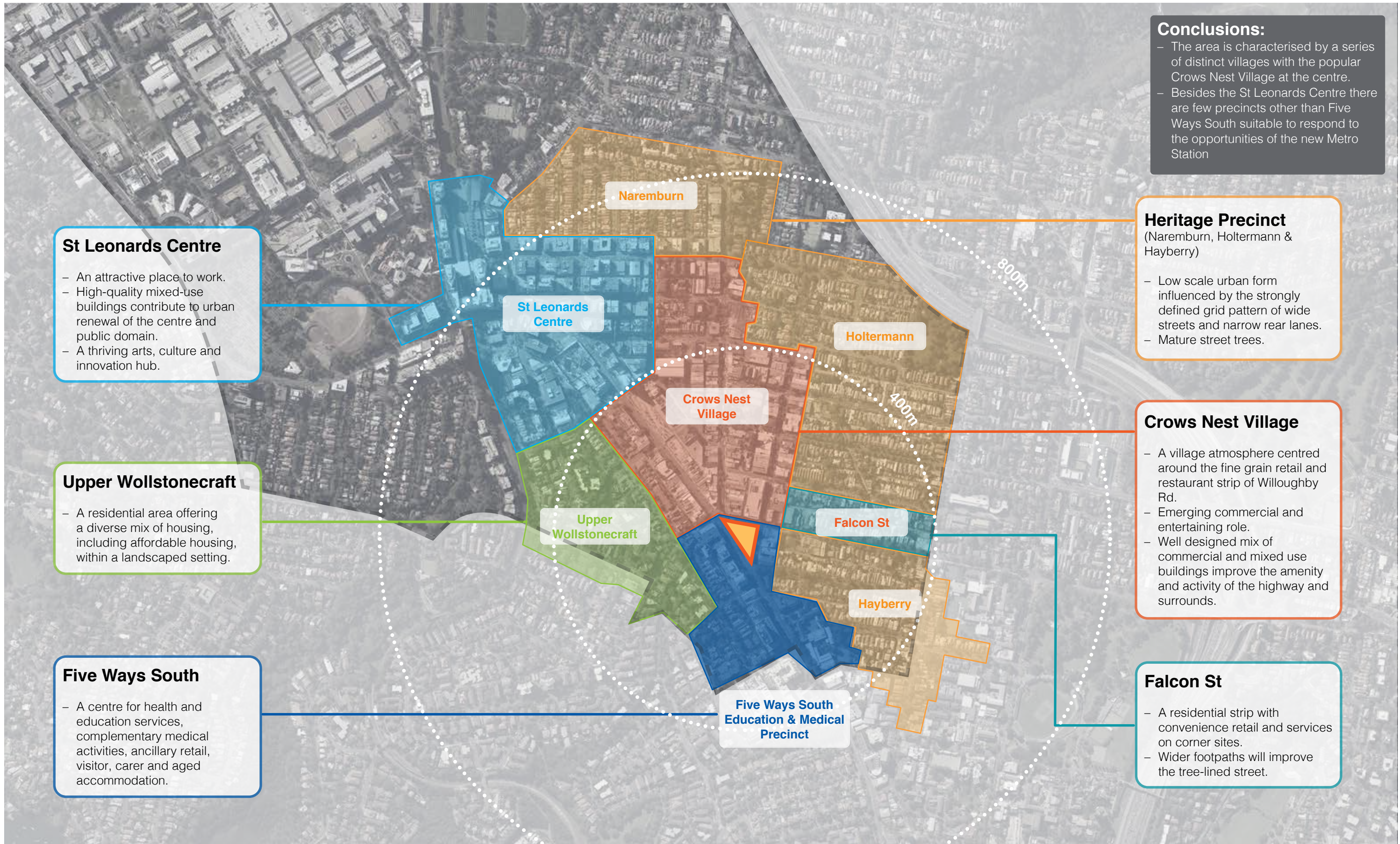


Response:

- Non Residential FSR Zoning: 2.5:1
- Proposed Non-Residential FSR: 8,002m² (2.5:1)
- Proposed within podium (3 levels + mezzanine)
- Proposed podium street wall: 3-storeys
- Approximately 15.4 (Falcon St and Pacific Hwy) and 18.5m (Corner of Alexander and Pacific Hwy)
- 0m setback (Podium levels: ground - level 2)
- 1m setback (ground level mid-block for street activation, outdoor dining and retail out-go trading zones)
- 6m typical setback with articulation zones (Tower)



**04 Site
Observations**



Conclusions:

- The area is characterised by a series of distinct villages with the popular Crows Nest Village at the centre.
- Besides the St Leonards Centre there are few precincts other than Five Ways South suitable to respond to the opportunities of the new Metro Station

St Leonards Centre

- An attractive place to work.
- High-quality mixed-use buildings contribute to urban renewal of the centre and public domain.
- A thriving arts, culture and innovation hub.

Heritage Precinct
(Naremburn, Holtermann & Hayberry)

- Low scale urban form influenced by the strongly defined grid pattern of wide streets and narrow rear lanes.
- Mature street trees.

Upper Wollstonecraft

- A residential area offering a diverse mix of housing, including affordable housing, within a landscaped setting.

Crows Nest Village

- A village atmosphere centred around the fine grain retail and restaurant strip of Willoughby Rd.
- Emerging commercial and entertaining role.
- Well designed mix of commercial and mixed use buildings improve the amenity and activity of the highway and surrounds.

Five Ways South

- A centre for health and education services, complementary medical activities, ancillary retail, visitor, carer and aged accommodation.

Falcon St

- A residential strip with convenience retail and services on corner sites.
- Wider footpaths will improve the tree-lined street.



Conclusions:

- Requirement for more Ancillary Medical Facilities
- Opportunity for Educational facilities close to Hospitals
- Larger Library close to Schools & university

 Medical Centre
  Hospital
  Educational Facility
  Emergency Services



Conclusions

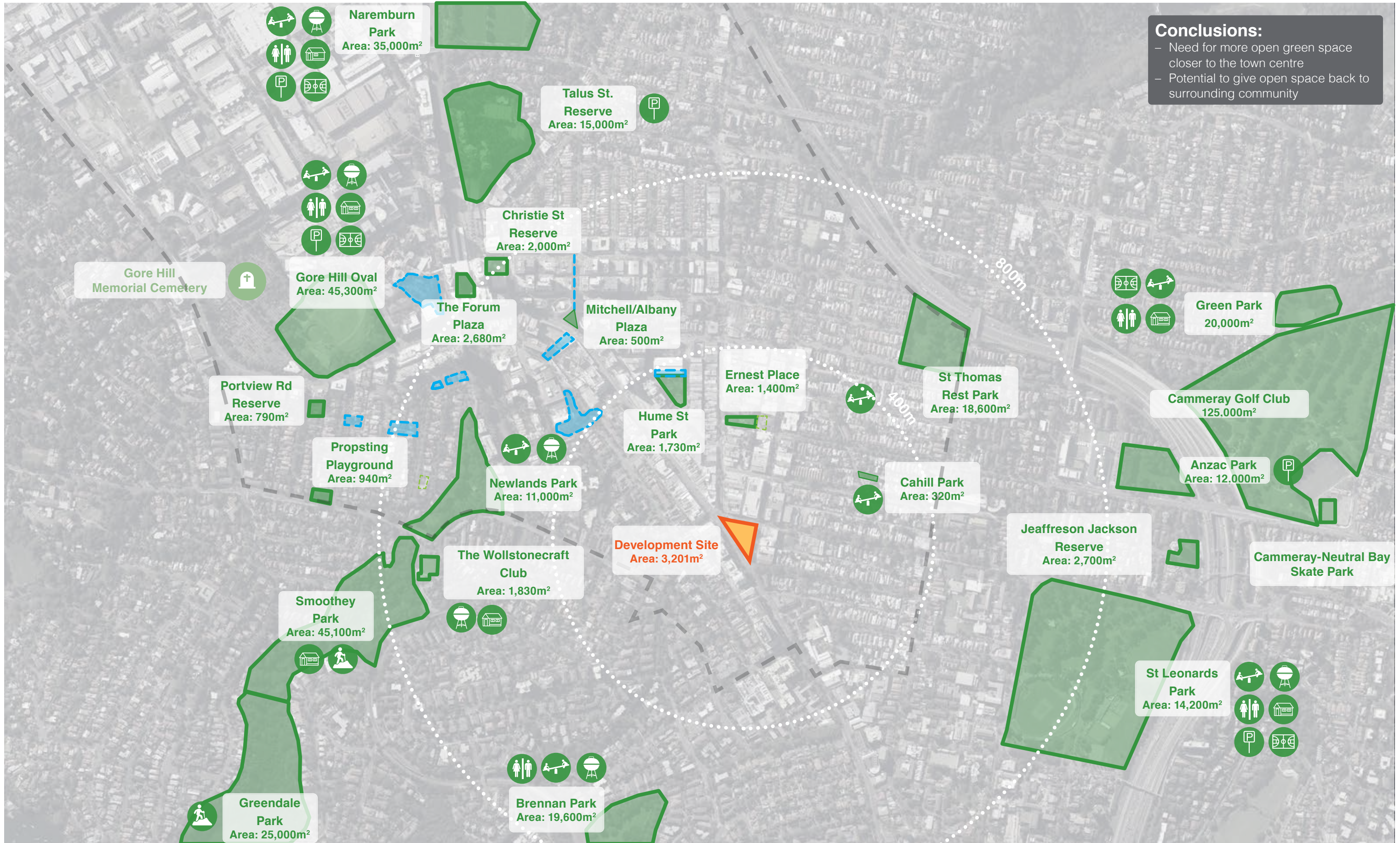
- Larger Community Centre Required closer to the Town Centre and Metro
- Additional Childcare required in the area


 Religious Institution
  Youth Care
  Childcare

Conclusions:
 - Need for the community and recreational spaces closer to town centre.



- Green Space
- Bowling Centre
- Skating Facilities
- Cemetery
- Small Park
- Public Plaza
- Shopping Strips
- Sports Facilities
- Cricket Facilities
- Swimming Facilities
- Tennis Facilities
- Artistic Facilities
- Public Institutional Centre



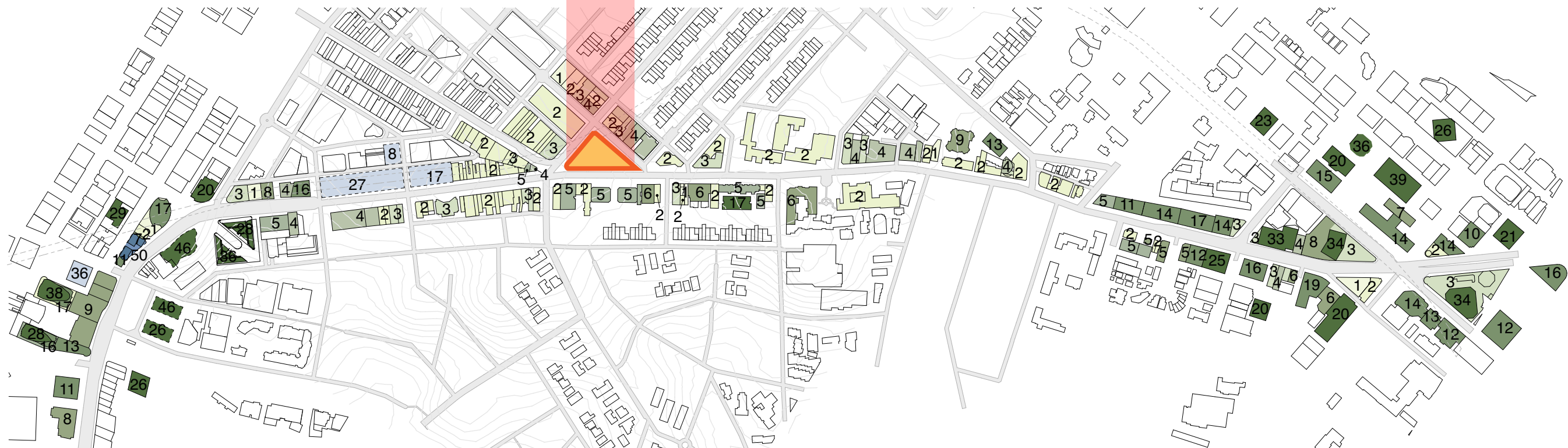
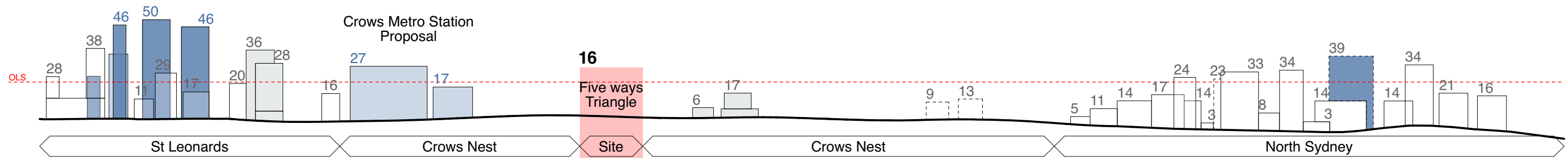
Conclusions:

- Need for more open green space closer to the town centre
- Potential to give open space back to surrounding community

Note: Measurements sourced from Google Earth

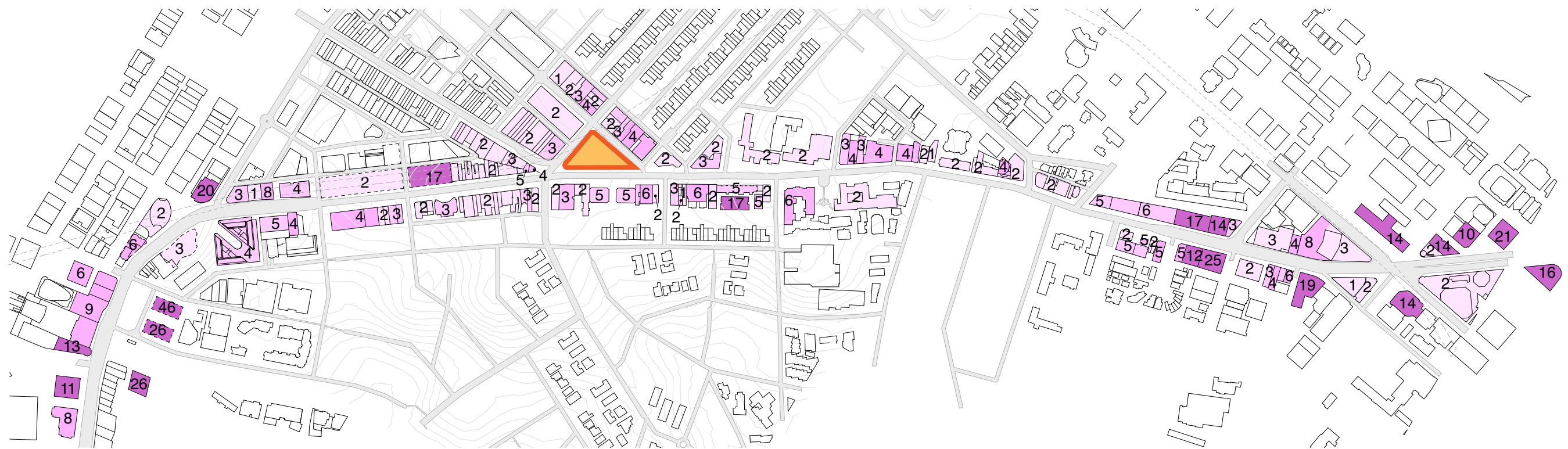
- Council Proposed Open Space
- Playground
- BBQ
- Public Toilets
- Carpark
- Sports Fields
- Community Hall
- Hiking Trails

Site Observations



Site Observations

Pacific Highway Tower Heights



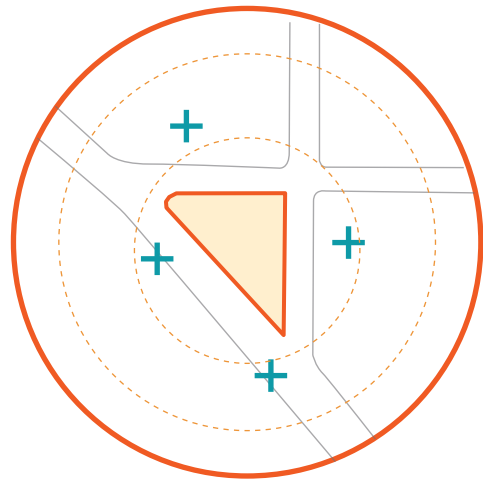
Pacific Highway Street Height



05 Project Vision

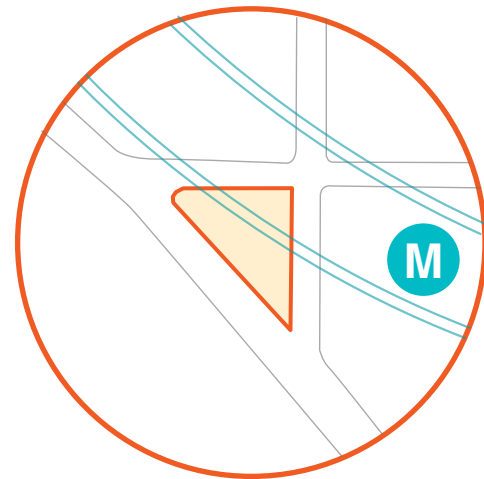
The project vision

The project vision is informed by a series of key factors to help guide and create a framework for the Five Ways Crows Nest Planning Proposal.



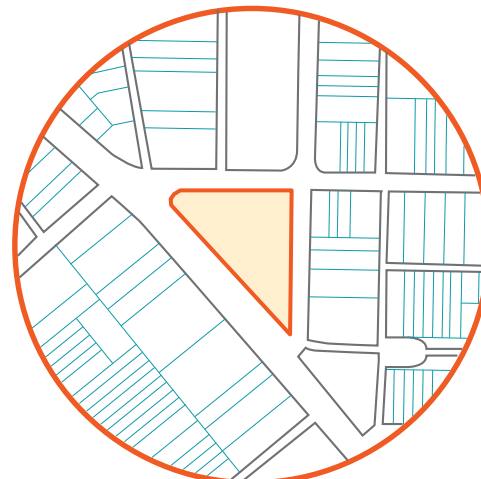
1. Crows Nest as an urban centre & active urban hub

The Crows Nest area will be a major Urban Centre for workers, residents, students and visitors. This site is part of a plan that will create new opportunities for urban revitalisation and will accommodate new jobs, open space, infrastructure and dwellings in walking distance to 'turn up and go' rail services. The 2036 Plan identifies the Five Ways intersection as a gateway element into the precinct.



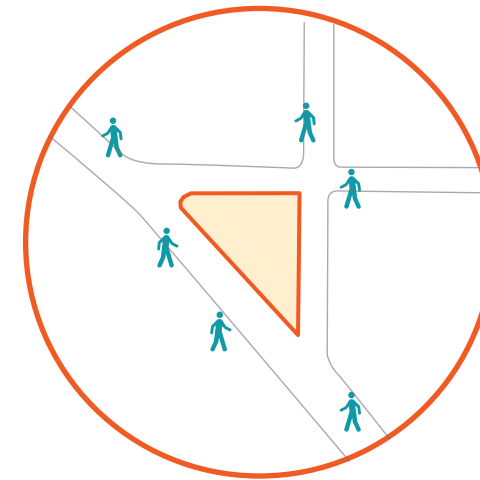
2. The proximity to the new development of the Metro Line Station

The revitalisation of the area is a direct response of the infrastructure upgrades associated with the new Sydney Metro station due to be operational in 2024.



3. Fine grain town centre

Five Ways triangle seeks to retain the mixed-use character of the area while taking advantage of opportunities for renewal along the Pacific Highway corridor. The village atmosphere and fine grain nature of Crows Nest is one of the most important features of the area and will be maintained. The materiality and articulation of the podium responds to the rhythm and character of the existing retail High-Streets.



4. Urban Design responding to community needs

The Five Ways Proposal is designed to integrate into the existing locality responding to the distinctive retail High-Street character of the area and connecting through to the existing street grid via new pedestrian walks. Setbacks are defined to activate street frontages and find space for trees and landscaping. Commercial tenancy space contributes to the 2036 Plan vision of a regenerated employment area and residential dwellings create new communities connected to the city by the new Metro.



5. Benefiting the community through improved services & amenity

The public domain and ground floor level is designed to extend the Crows Nest Village with activated retail, opportunities for outdoor dining, street trees, public art and landscaping. Retail tenancies are designed to complement the local offering. Key-worker housing assists housing diversity and provides much need options for local workers who have difficulty accessing market housing.

06 Design Principles

Key design insights

Key design insights were formed from our site observations and review of the strategic planning documents.

The analysis of both the 2036 Plan and the Better Placed document informed the following key design insights, providing a framework for testing options and interrogating the design.





1. Be local & responsive to context

Local character makes neighbourhoods distinctive. A place-based approach will ensure the retention of local character

Proposing developments which are **sympathetic to the existing history and local character** of places is important in achieving successful design outcomes which are responsive to context.



2. Responds to the needs of the community

It is critical for new developments to be responsive to the needs and aspirations of the local community, **promoting innovative uses, healthy habitation, social interaction, productivity and enjoyment.**

New developments must also **enhance safety and comfort** to further facilitate activities of working, living, relaxing and social interaction.



3. Better for the community

The design outcomes of new developments must be better for the community, wherein all **streets and public walks are inviting, accessible and community focused**

The contribution to the built environment must seek to address growing economic and social disparity, creating equitable environments.



4. Integrated relationships

The urban environment is inherently complex, diverse and multi-layered, reflecting the evolving nature of all cities.

An **integrated relationship between the parts and elements of the built environment at differing scales is critical** to the holistic success of spaces and places.

This involves working at multiple scales with common goals and aspirations that defines the overall design principles of all developments, irrespective of scale.



5. Resilient to adapt & evolve

The success of new developments highly depends on the embodied degree of resilience and adaptability.

This relates to architecture which is **resilient and dynamic in overcoming the challenges of evolving social, environmental and political environments**, whilst retaining the essentialness of quality design and practical programmatic requirements of the building use(s).







These key design icons are repeated in the report to show where the insights are implemented in the proposal



6. Celebrates the streetscape

7. Variety in housing

8. Different employment options

9. Promote a variety of uses

Celebrating the streetscape and creating attractive places invites visitors, residents and business activity, **fostering a sense of local identity and pride.**

Furthermore, streets and public spaces which are visually attractive, engaging, welcoming and accessible embody **greater vibrancy and interest.**

A celebration of streetscape is further enhanced through the longevity of materials and detailing which weather gracefully and develop patina over time.

A variety in housing accommodates and recognises the diversity in the community.

Developments which contain different housing and tenure options provide **resilience to continuously changing demographics and needs of the local population.**

A range of different spaces and tenancies cater for both small, medium and large business, thus promoting different employment options.

Successful towns and cities provide the **infrastructure which facilitates access to different employment, education, social and cultural spaces** wherein a diverse working population is supported.

To promote diversity and longevity, the design of the built environment must seek to accommodate a variety of different programs and uses.

This includes **spaces which are easily adaptable** with inherent flexibility to serves a number of different uses with different programmatic requirements.

Ultimately, buildings which successfully serve their proposed use will remain well-utilised and valuable.



These key design icons are repeated in the report to show where the insights are implemented in the proposal

07 Building Program

The Five Ways Triangle

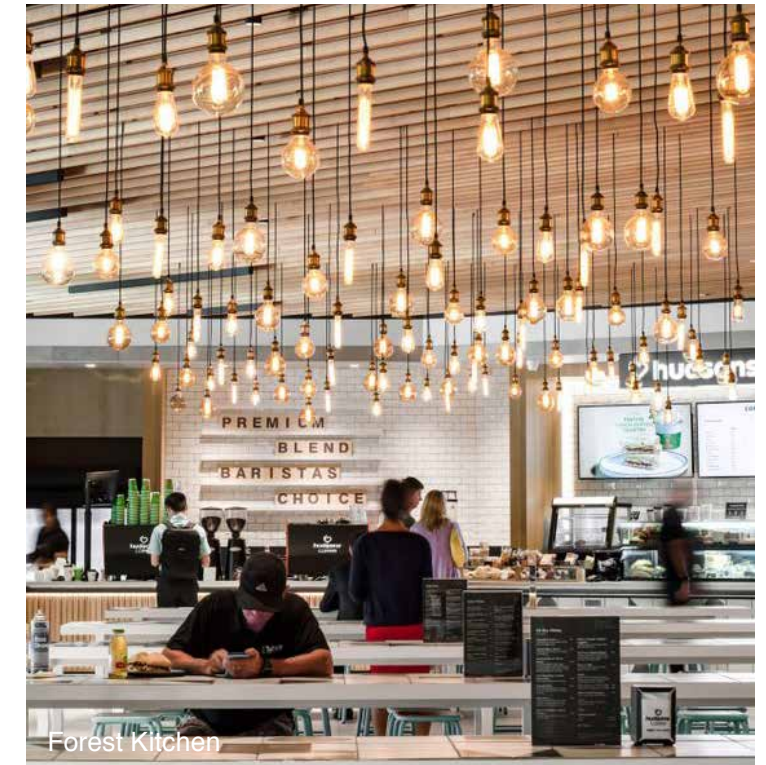
The Five Ways triangle site creates opportunities for urban regeneration and will accommodate new jobs, retail tenancies and residential dwellings in walking distance to Crows Nest Village and rail services.

The development of the Five Ways site will be an innovative hybrid building which responds to the 2036 vision, the new Metro and the needs of the Crows Nest community. It will be instrumental in the regeneration of the Five Ways Precinct and the future delivery of high quality mixed-use retail, commercial workplaces, and high-amenity residential apartments.



Retail

Case studies are referenced here to demonstrate the potential program of the retail spaces on the ground floor. The proposed variety of tenancy sizes are suitable for a wide range of uses including food market, food & beverage operators, showrooms, and gallery spaces.



Public Domain

Case studies to demonstrate the potential program and activation of the Public Walks creating pedestrian links through the Podium.



Hardware Lane Melbourne



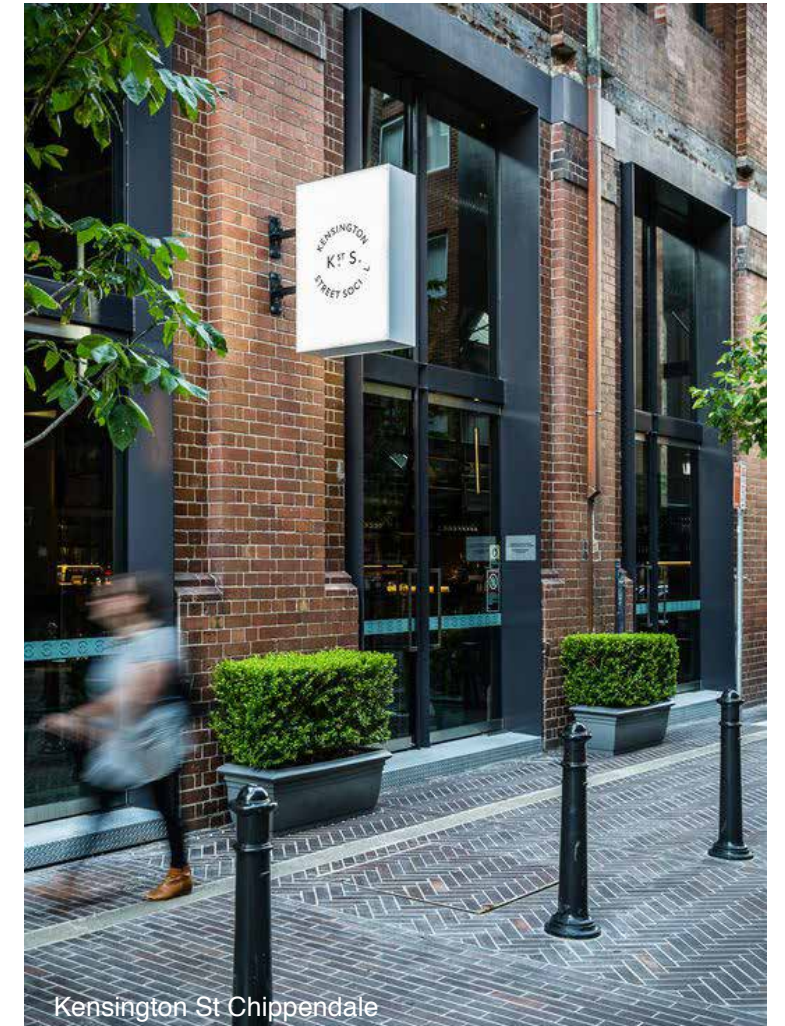
Llankelly Lane Potts Point



Barrack Place Sydney



Angel Place Sydney



Kensington St Chippendale

Housing Diversity

Case studies to demonstrate the potential for housing diversity through the integration of key-worker and market housing configured as 1-, 2- and 3-bedroom apartments. The examples include various features and arrangements including garden apartments, integrated storage, study nooks, kitchens located at the perimeter, and larger penthouse apartments.



Commercial Space

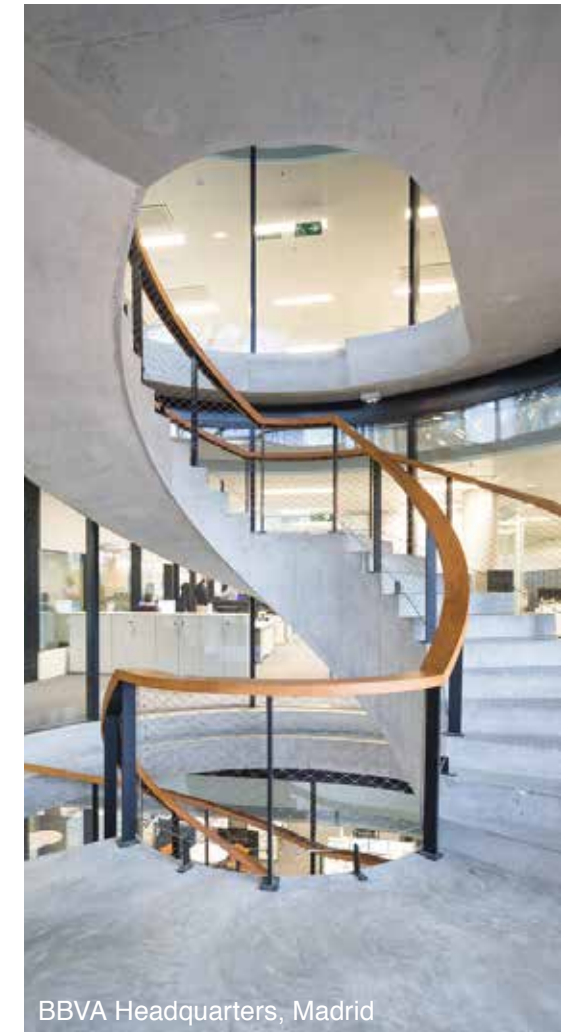
Case studies to demonstrate the potential for commercial space in the podium for co-working, medical facilities, office space and council chambers. Multi-level commercial buildings include those with provision for vertical connection between levels.



Co-Working



Paramount Office Space, Surry Hills



BBVA Headquarters, Madrid



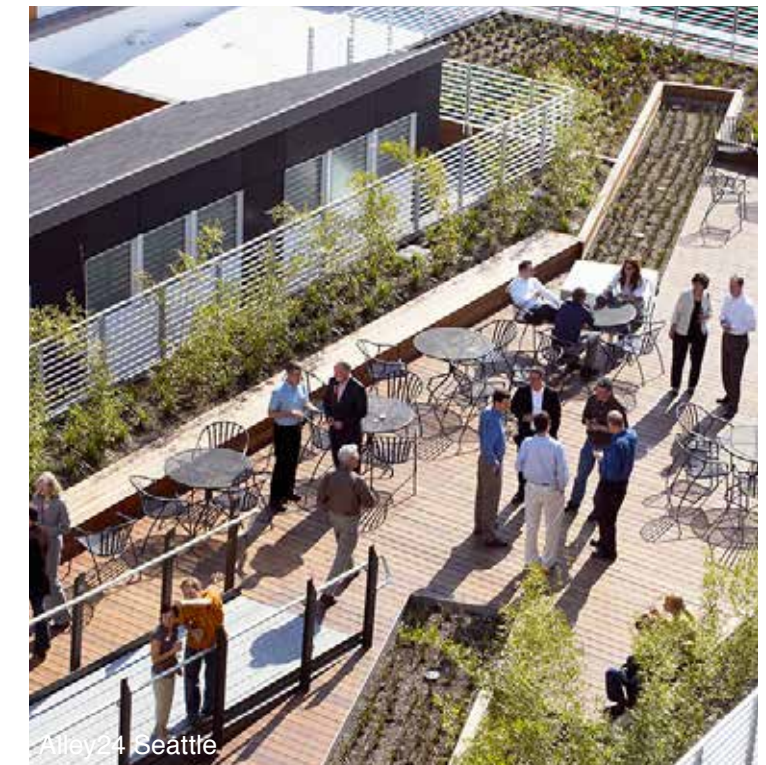
Malocclusion Dental Clinic



Second Home London

Landscape & Sustainability

Case studies to demonstrate the potential program of the landscaped pockets throughout the proposed development including podium and rooftop gardens.

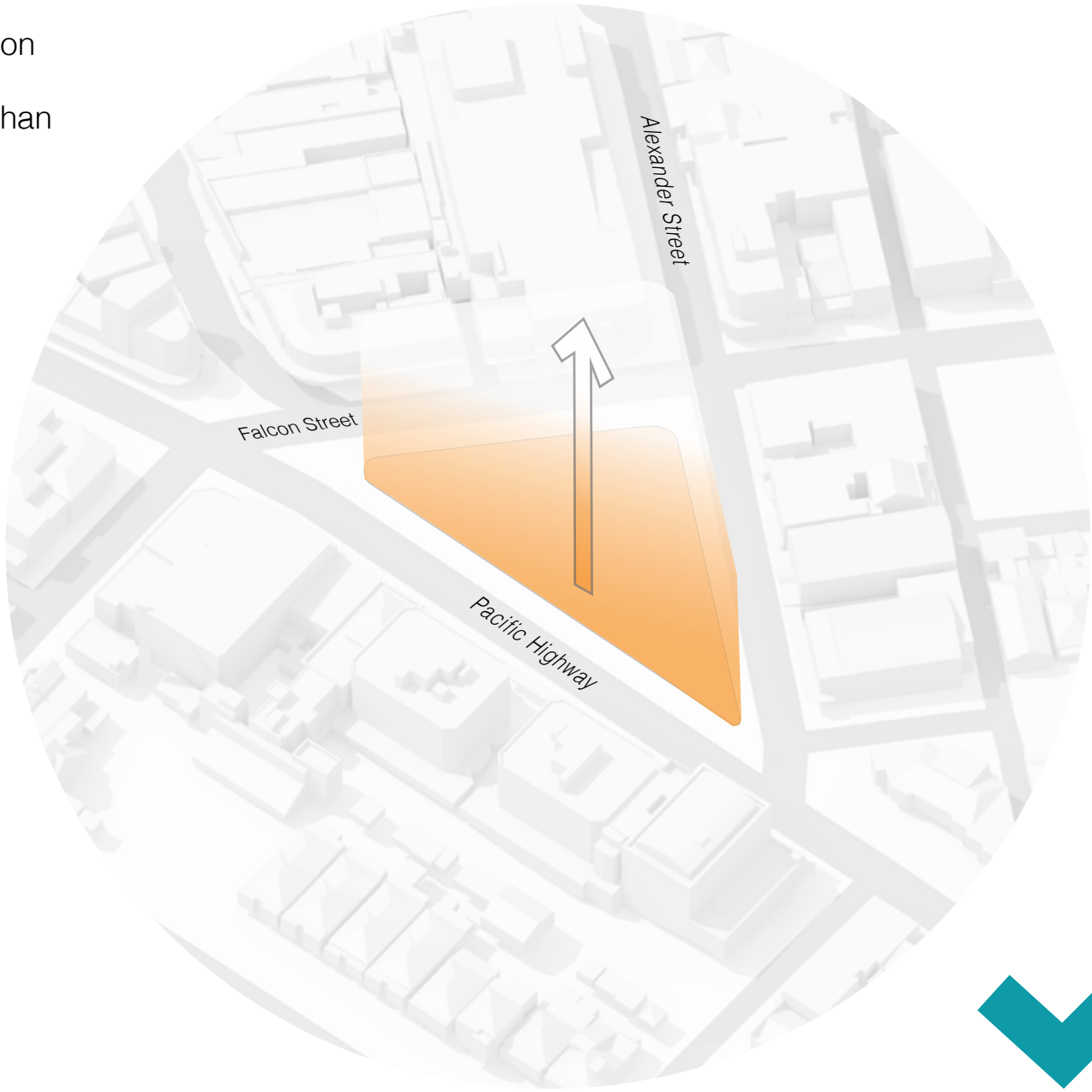


08 Design Proposal

The Base: Ground Plane and Podium

The ground plane and podium are conceived as an extension of the Crows Nest Village atmosphere.

This podium strategy offers vibrant street level activation and contribution to the public domain. As such, the proposal has been driven from the ground-up rather than top-down.



- LR
- NC
- BC
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Design Proposal: Urban Design Ground Plane

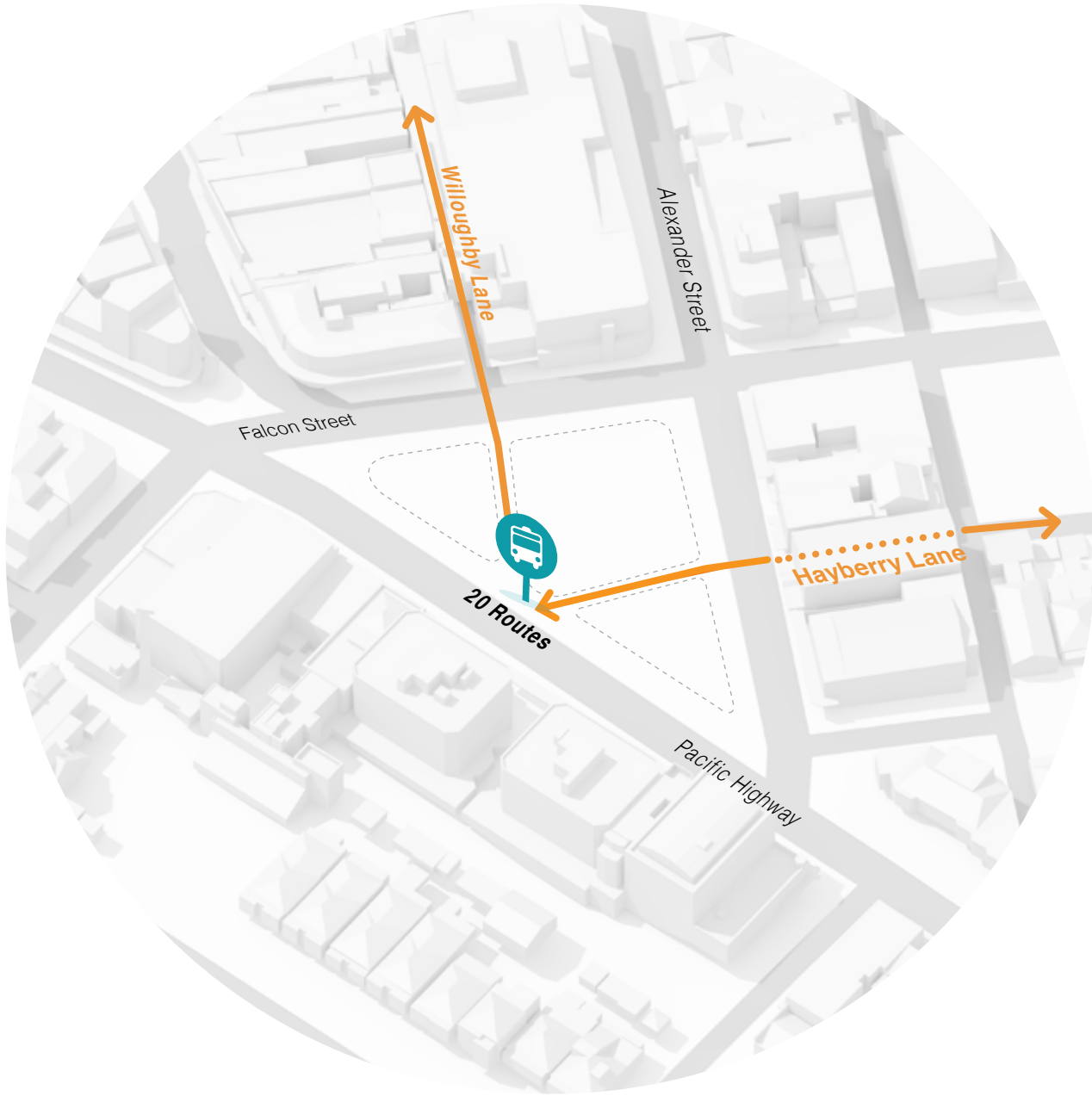
Ground-Up Design Approach

The Ground Plane: 1 Connections

The built form is responsive to the existing connections and networks across the site.

This includes the existing bus stop which provides access to over 20 routes to areas including the CBD, Inner West, North Shore, Northern Beaches, and Eastern Suburbs.

The division of the ground plane includes pedestrian pathways connecting the bus stop with desire-lines from the existing urban street-grid.



Design Proposal: Urban Design Ground Plane

Connection to Existing Nodes & Networks

The Ground Plane 2

Sustainable, Walkable, and Liveable

Sustainable, walkable and liveable cities are important aspects of the significant site design criteria.

The division of the podium including the permeability of the two new public walks result in a fine grain podium form which connects into the existing pedestrian, vehicular and transport nodes of the site.



..... Pedestrian Pathways
 == Vehicular Access



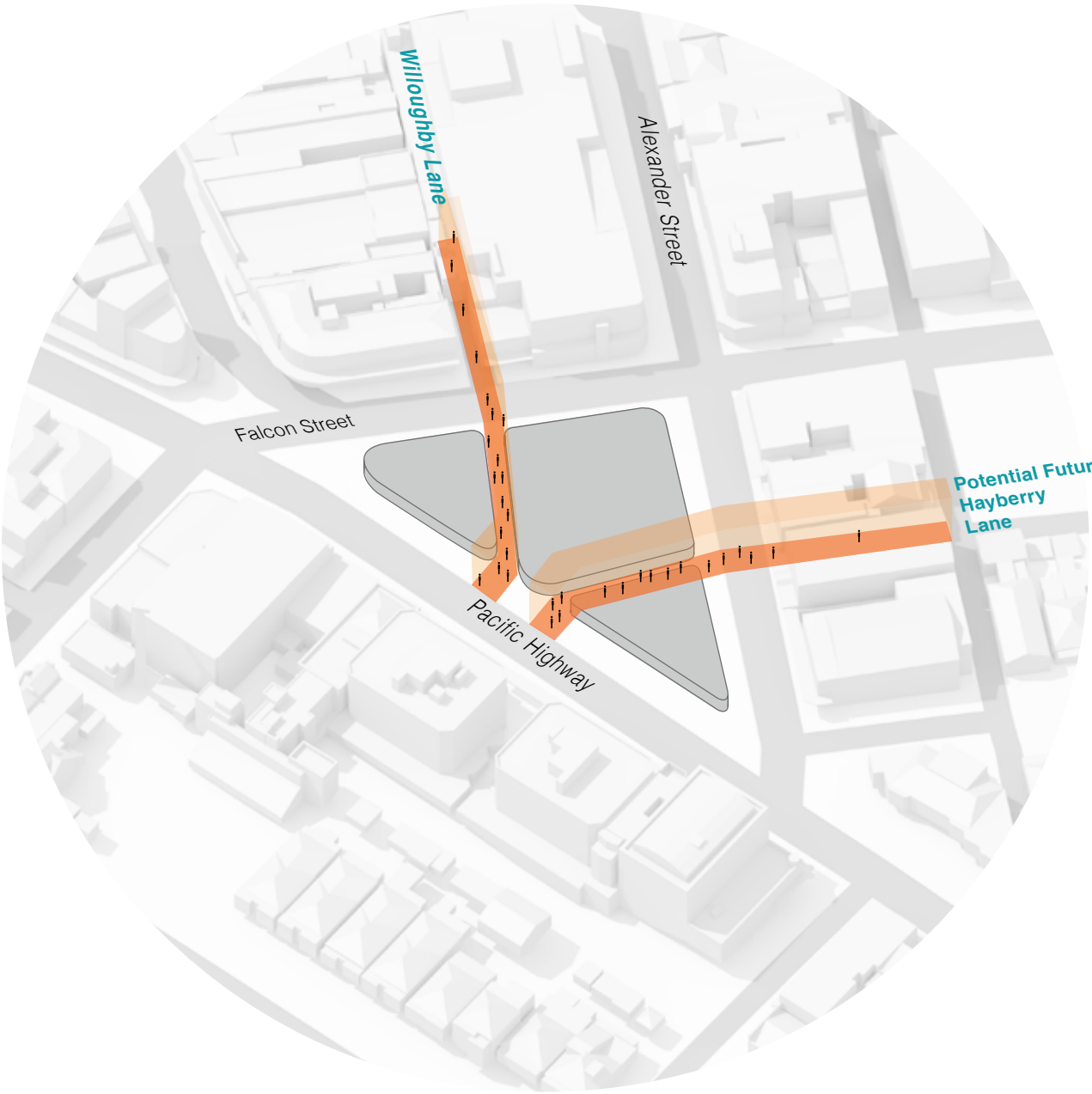
Design Proposal: Urban Design Ground Plane

Pedestrian, Vehicular & Servicing Principles

The Ground Plane 3: Street Level Activation

Street level activation and contribution to the public domain with ground level setbacks and public walk connections through the site create a sense of 'place'.

The new public walks increase site permeability and create new retail frontages and interesting, active spaces.



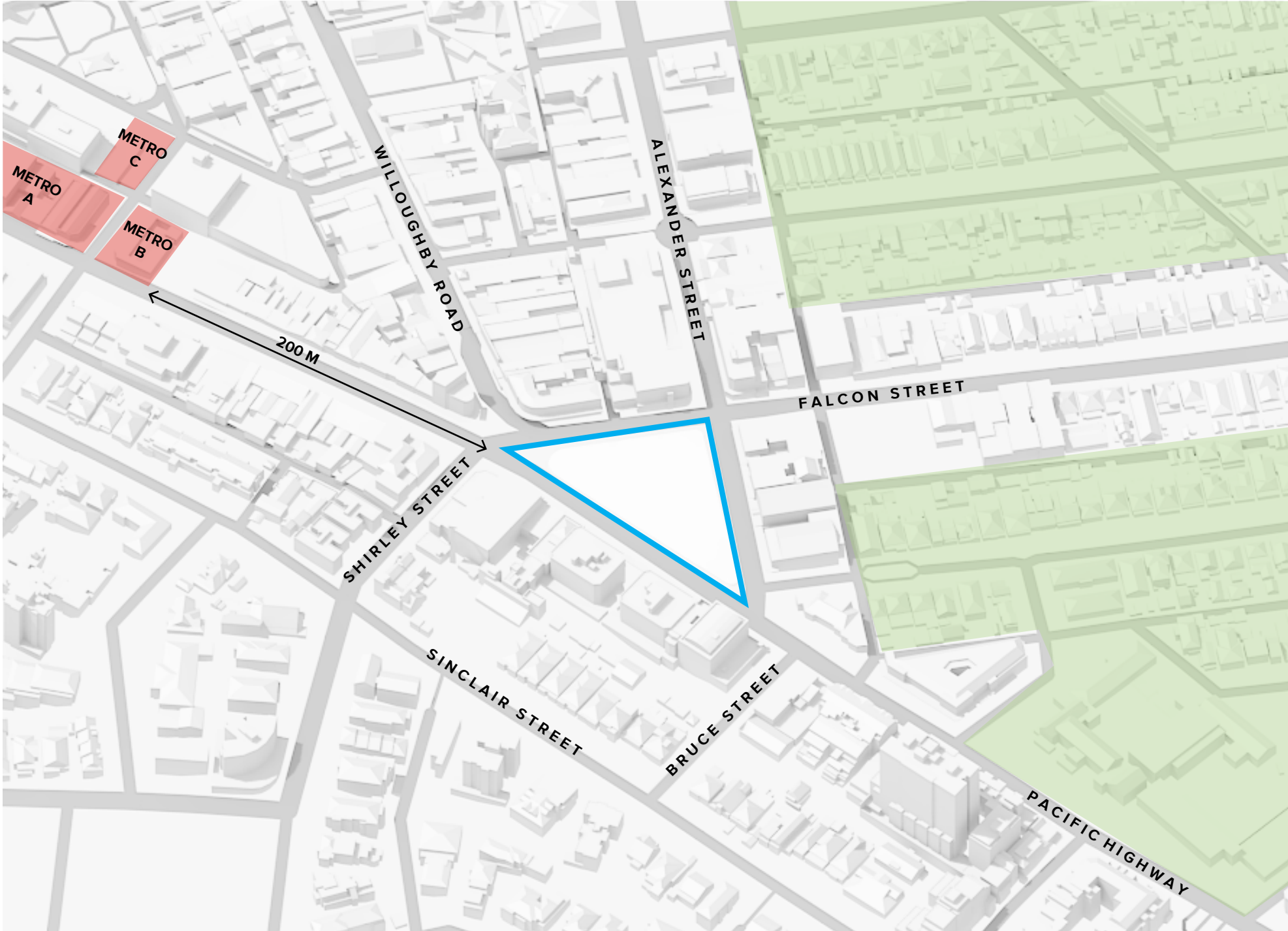
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The Podium 1: Location

The site is located at the junction of 5 roads (Pacific Highway, Shirley Street, Willoughby Road and Falcon Street).

The new Crows Nest Metro Station is approximately 200m south of the site.

To the east is the series of Heritage Conservation Areas that make up the Holtermann Estate.



Design Proposal: Urban Design Ground Plane

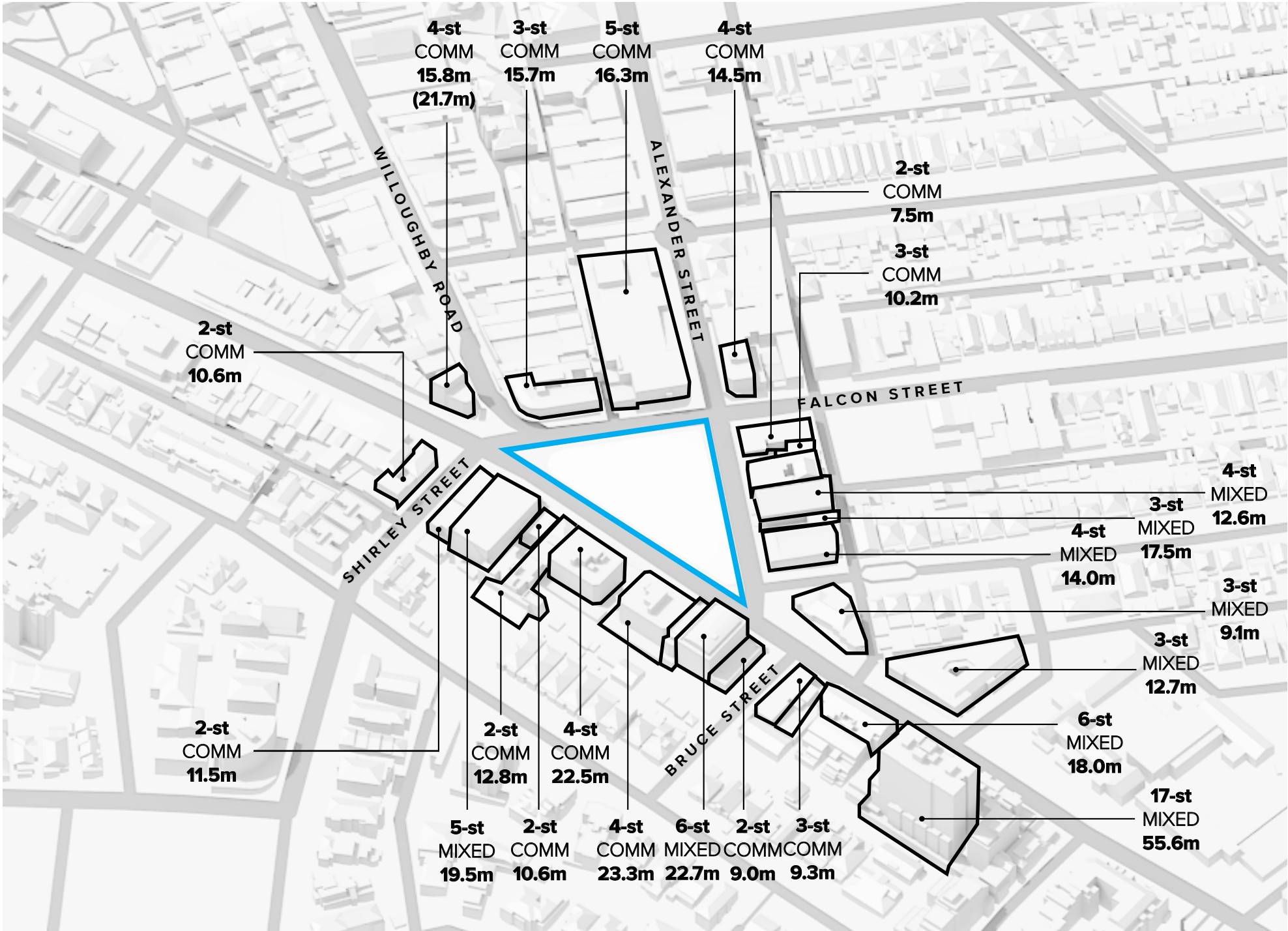
The podium

The Podium 2: Street Wall Context

With the immediate context of the site the character is urban, and the streets are composed of numerous buildings of different heights, street frontages and are from various eras.

From a closer analysis of the context, it is evident that each street contains buildings of various heights.

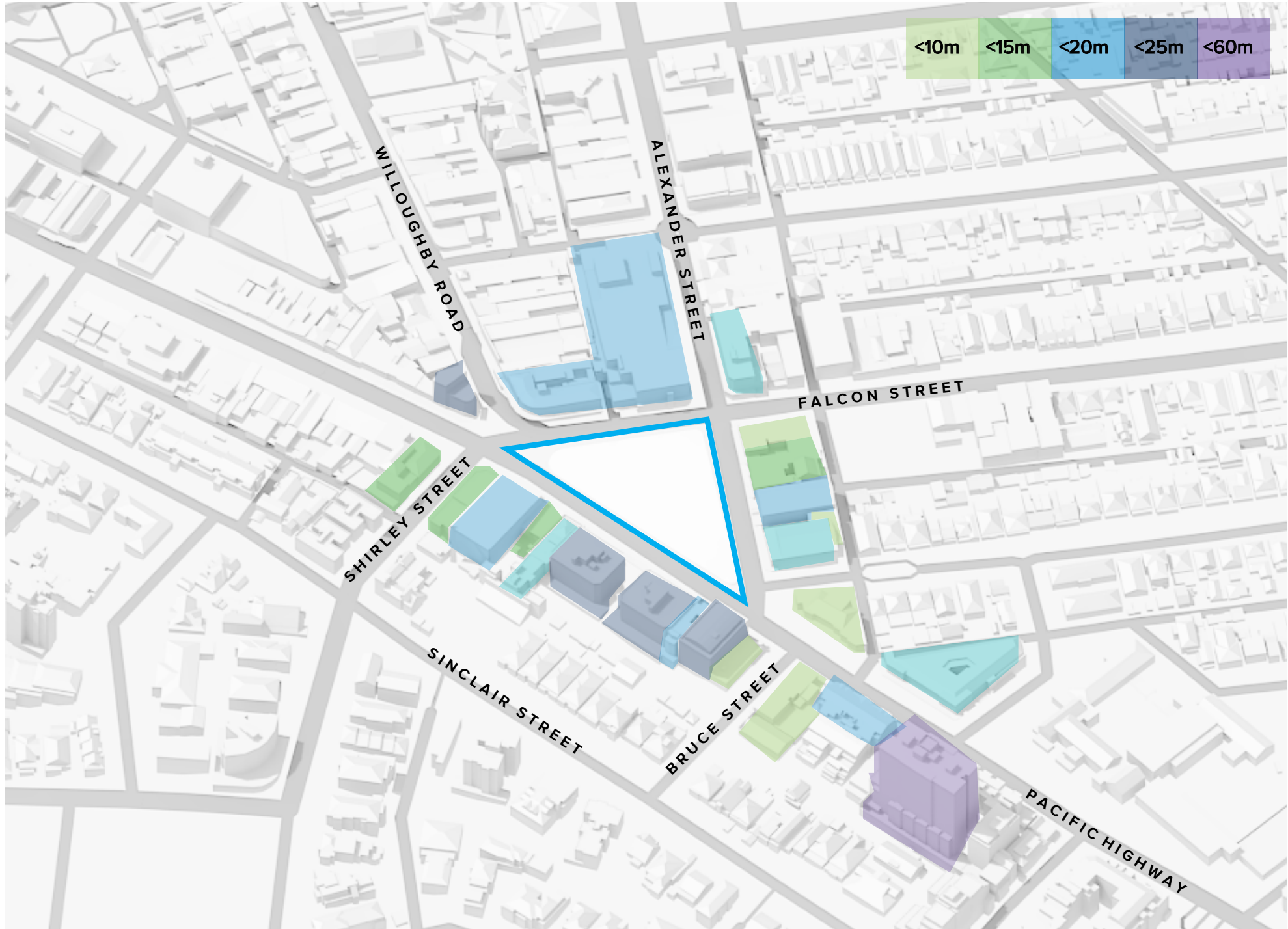
Most buildings have retail tenancies at ground level but there is more variety in the upper levels including commercial tenancies and residential apartments.



The Podium 3: Street Wall Heights

To simplify the analysis and to prepare a design response, a colour code was applied to group the buildings within ranges of heights.

Each corner of the site has both taller and lower buildings which is demonstrative of the land ownership pattern and different eras of piecemeal redevelopment.



- LR
- NC
- BC
- IR
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- CS
- VH
- DE
- VU

The Podium 4: Heritage

Heritage buildings were also designated.

From the image it is clear that existing heritage buildings are already embedded in a highly varying context.

Heritage buildings are also of varying heights.



The Podium 5: Proposed Heights

The proposed podium heights are derived from a consideration of the heights observed in the context.

The proposed heights closely match buildings on the opposite side of the street.

The podium heights consider the topography of the site and the fall observed from the Corner of Pacific Highway and Falcon Street to the southern corner of the site on Alexander Street.

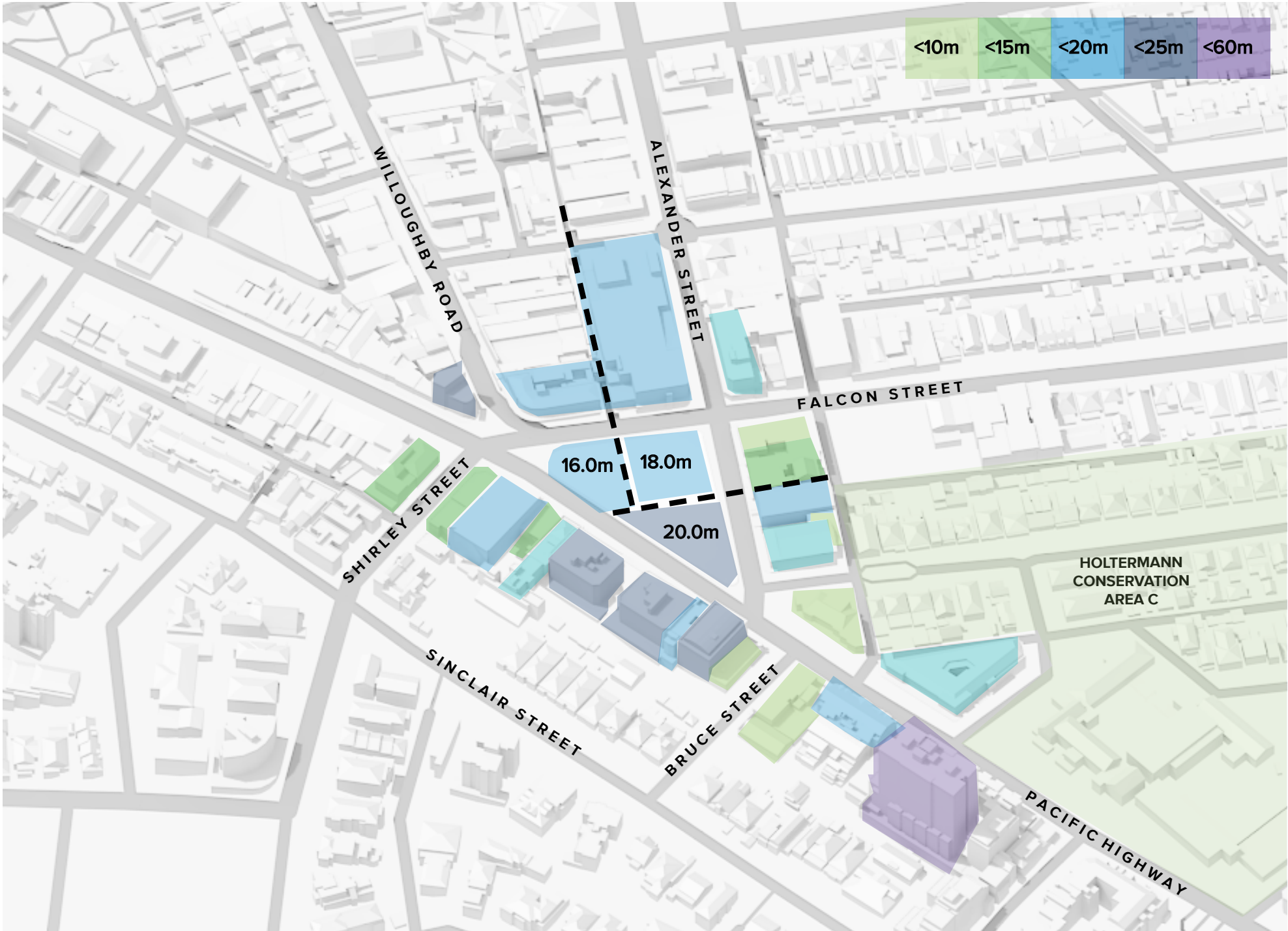
Retail and commercial floor to floor heights, an allowance for structural transfer from the residential tower, and podium soil depths also inform the determination of podium height.



The Podium 6: Pedestrian Permeability

Two new public, pedestrian walks are derived from the surrounding urban grid and suggest the possibility of a future eastern connection.

The links also offer site permeability, tenancy divisions to allow a variety of operators and line of sight to the bus interchange on the Pacific Highway.



Design Proposal: Urban Design Ground Plane

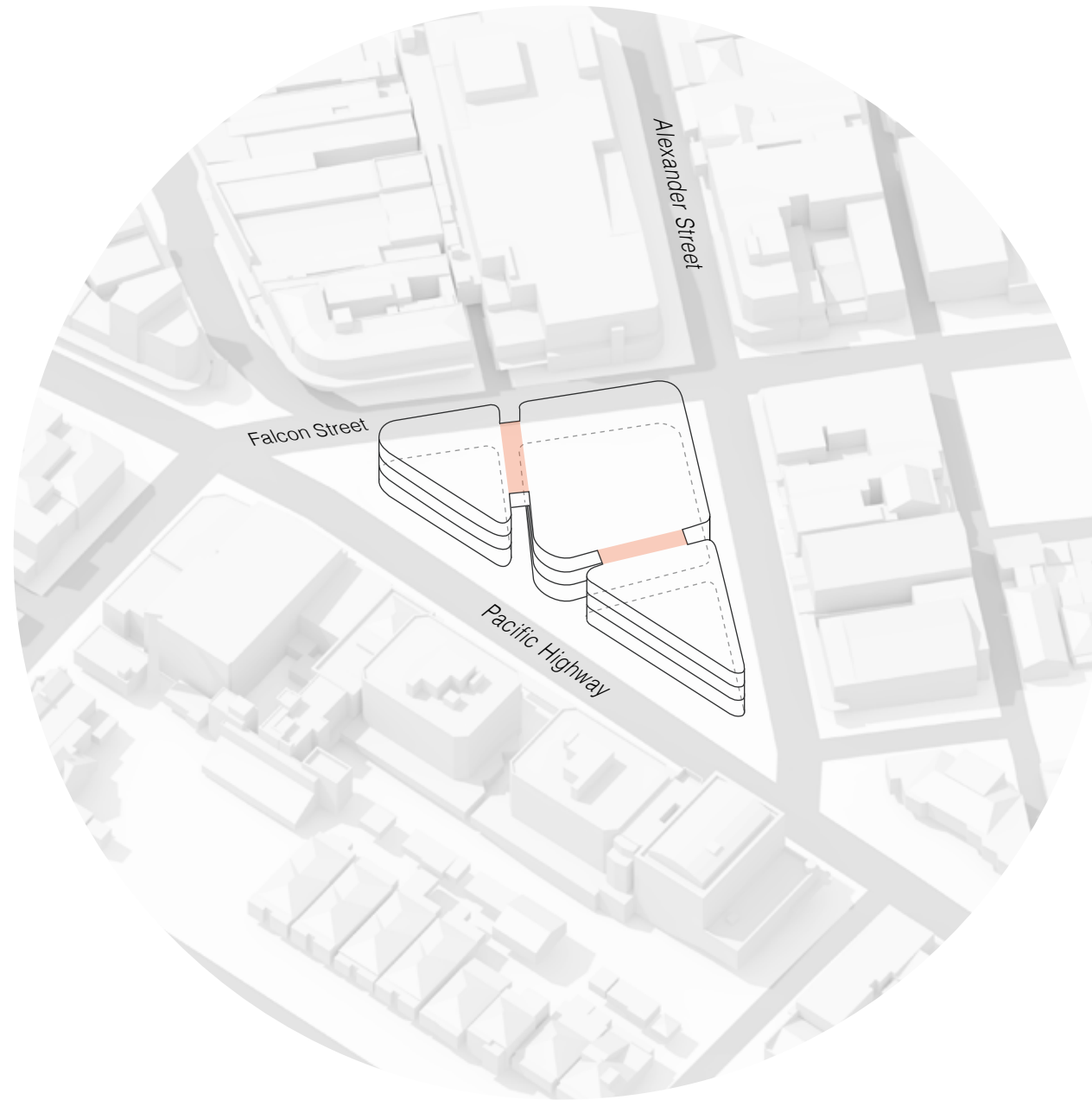
The Podium

The Podium 7: Bridging Floorplates

The podium form connects floorplates on upper levels with areas which bridge over the public walks below.

These bridging floorplates not only promote flexible workplace tenancies but also creates coverage for the activity of the public walks below. The changing scale through the walk from street to street creates a dynamic experience for pedestrians and retail frontages.

The podium includes flexibility for the tenancies to connect vertically and to the ground floor.



Design Proposal: Urban Design Ground Plane

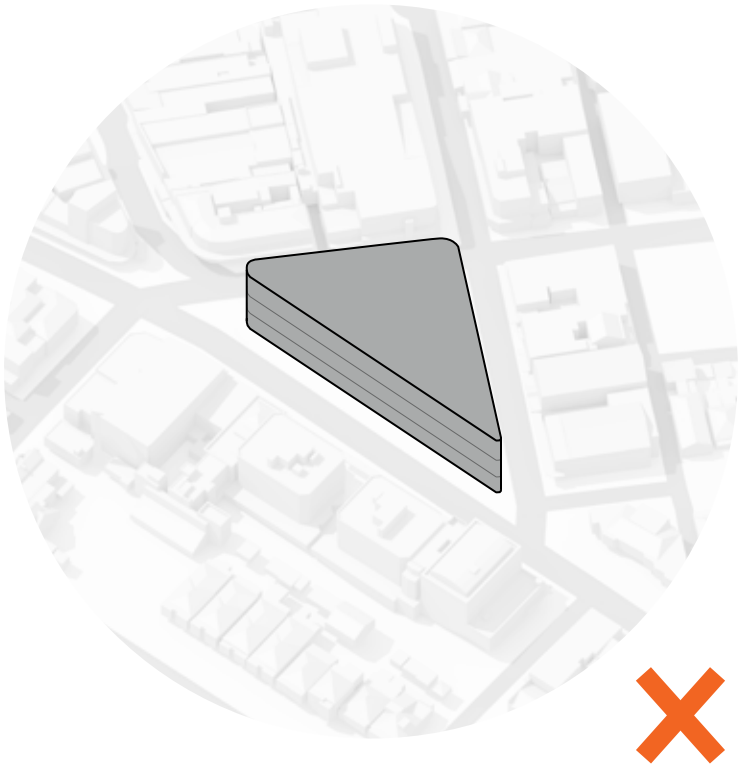
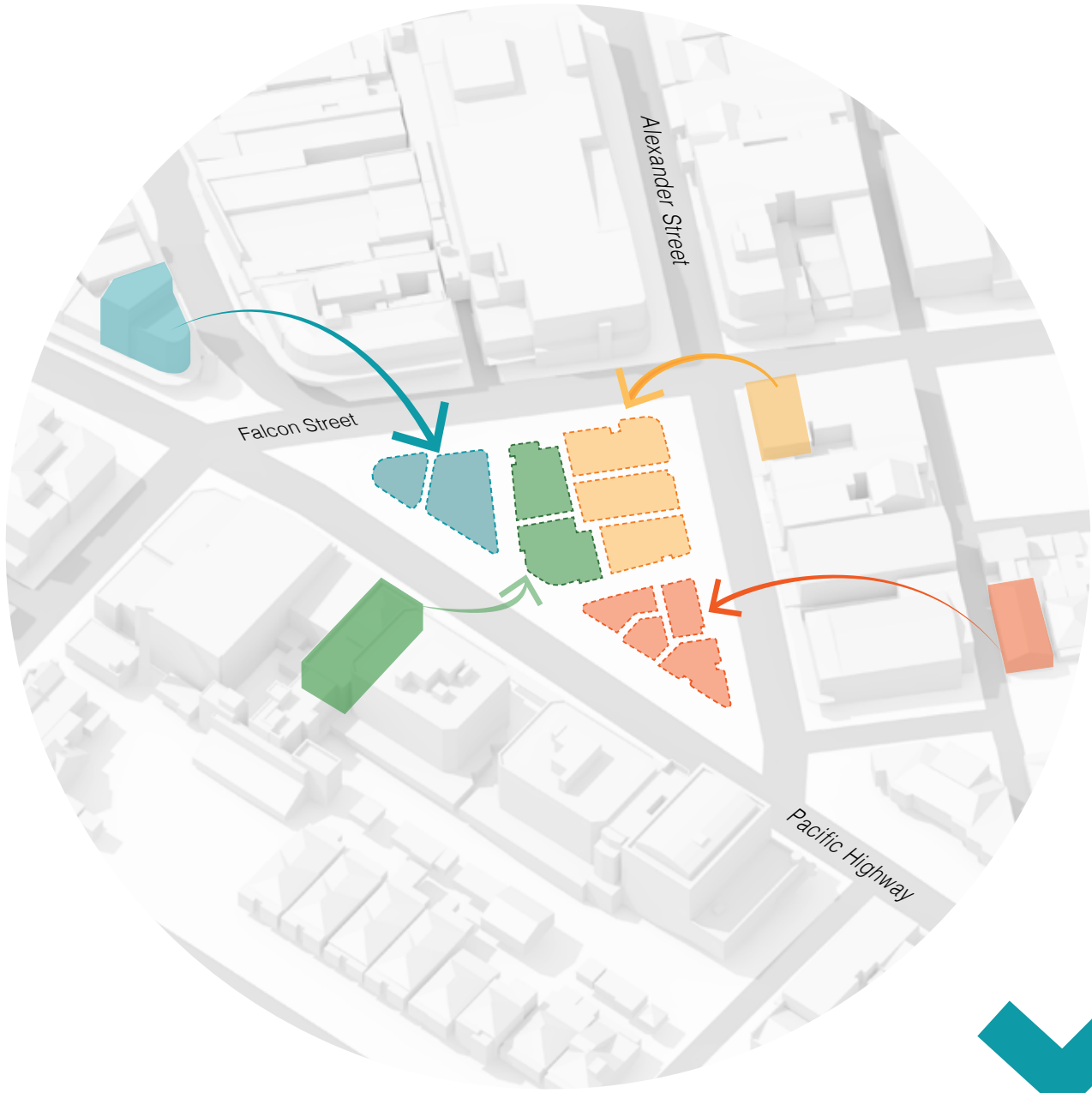
The Podium

The Podium 8: Fine Grain and Scale

The proposal adopts an intentional strategy of fine-grain and human scale in response to the character of Crows Nest Village, the retail High-Streets and the surrounding heritage items.

Indentation and articulation to the podium walls accentuate the individual retail tenancies and create a sense of scale similar to the surrounding buildings and the character of retail High-Streets around Crows Nest.

The materiality and detail of the podium also contributes to the fine-grain approach.



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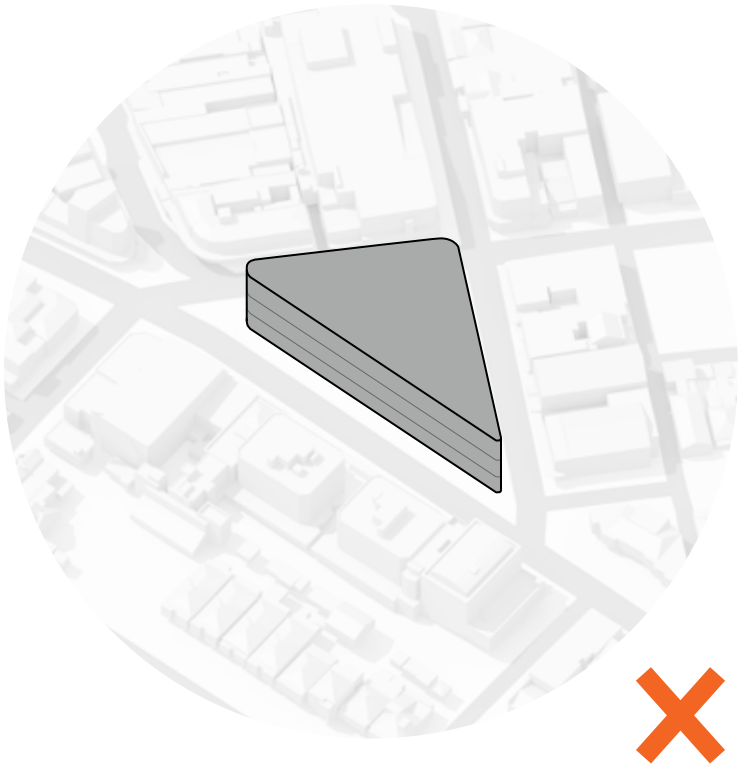
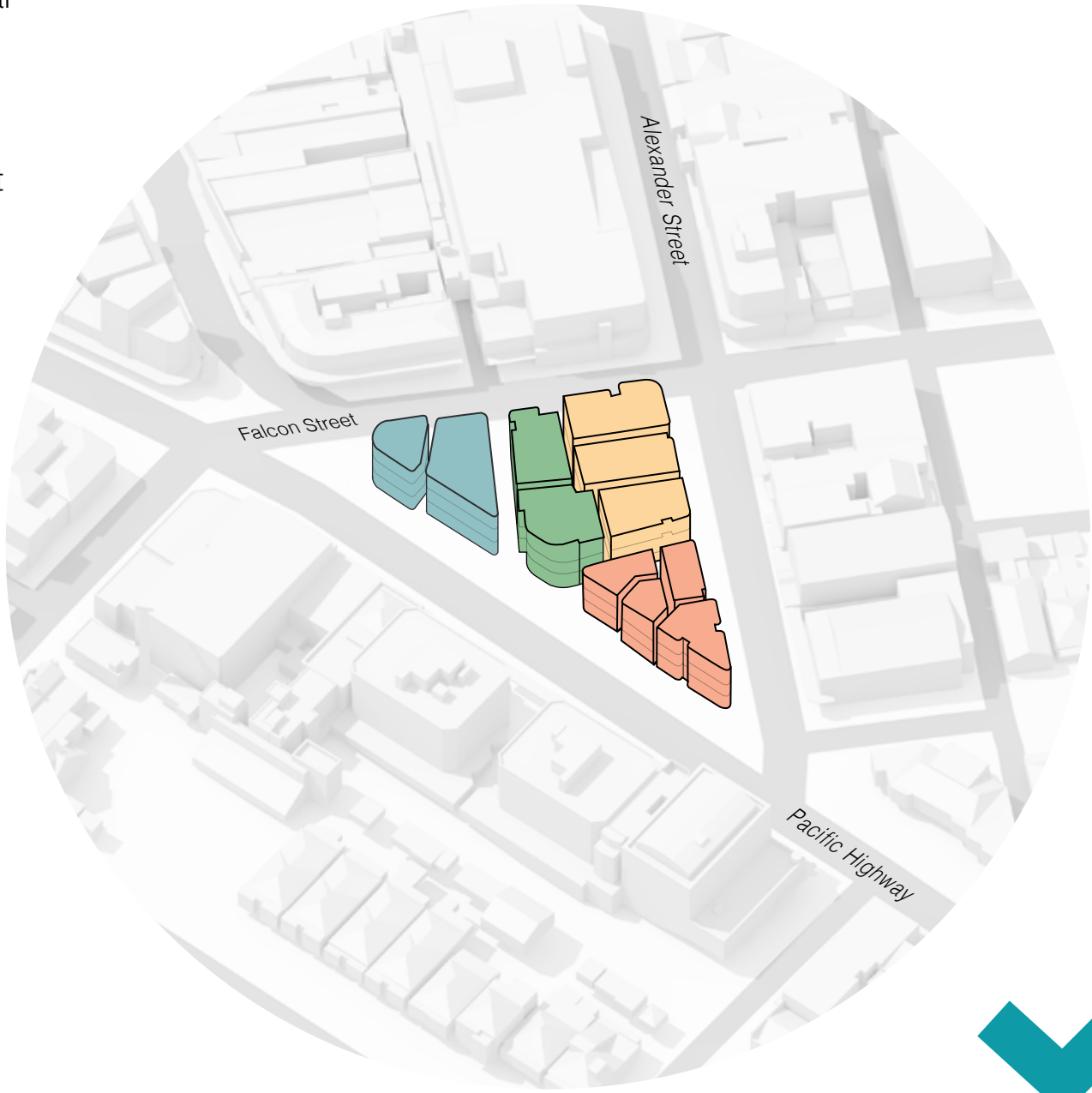
Design Proposal: Urban Design Ground Plane & Podium

Adopted Grain & Scale

The Podium 9: A Collection of Buildings

A collection of smaller buildings is the result, avoiding a singular monolithic form. In turn, this creates gradual transitions, sensitive interfaces and an appropriate response to the scale of the street.

The articulated forms create rhythm to the street wall that responds to the character of the local High-Street retail.



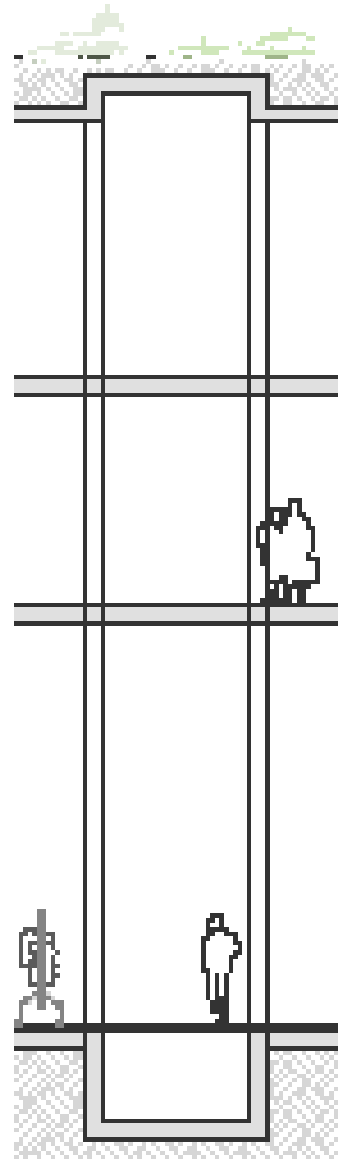
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Podium 10: Adaptable Floor Plates

Commercial floor plates are highly flexible and adaptable. This is achieved through the provision for vertical circulation in floorplate sections of the podium.

The provision and integration of lift pits enables flexibility to unite tenancies across multiple floors.

Commercial tenancy can connect into the ground plane if required.



Lift Pit Indicative Section

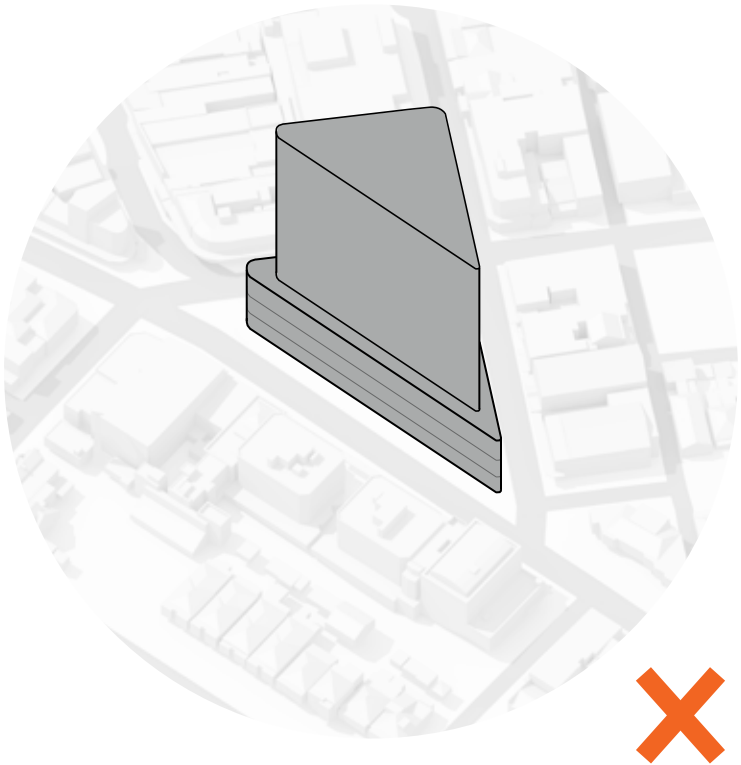
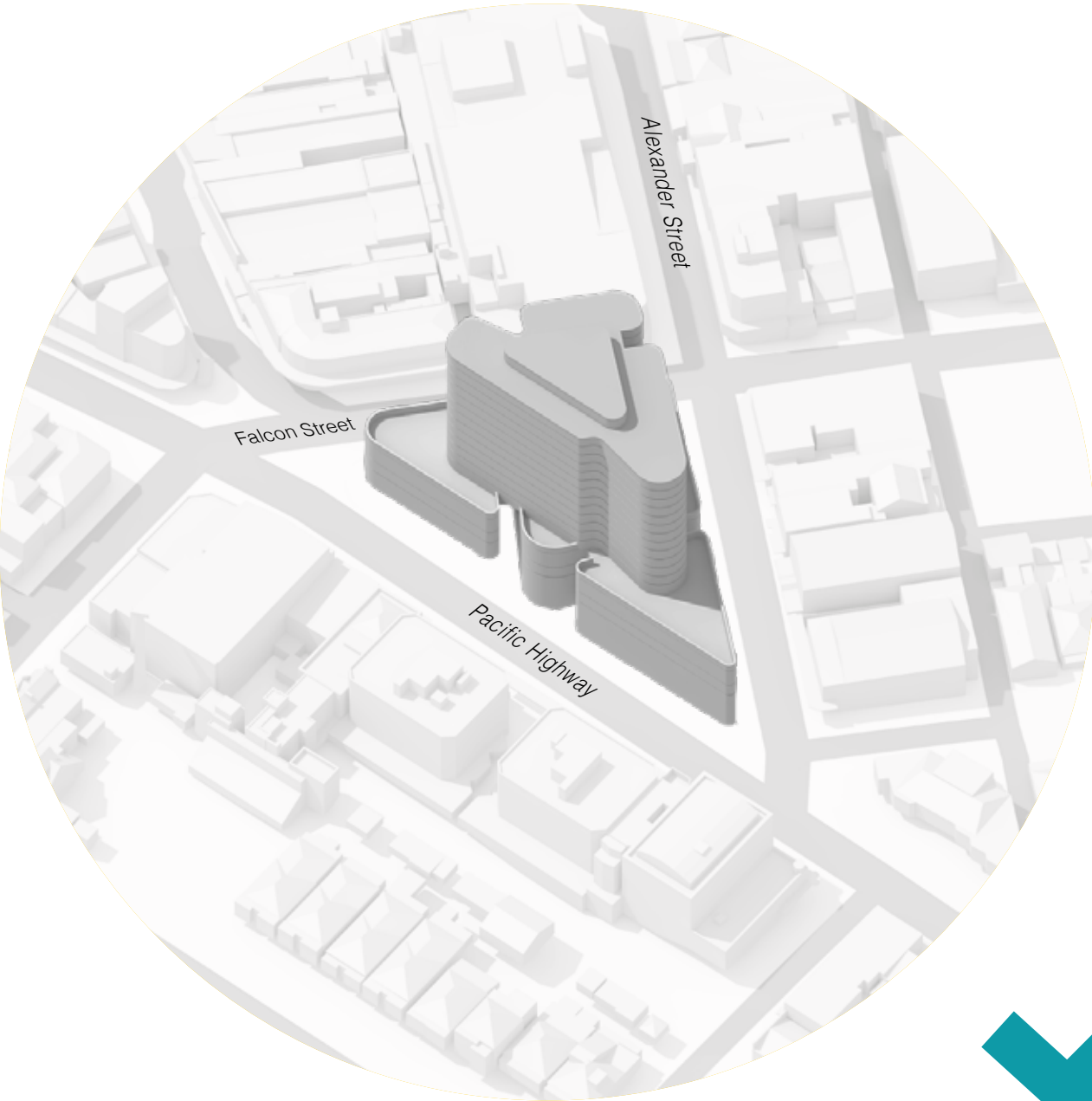


Design Proposal: Urban Design Podium & Tower

Retail Adaptability

The Tower: The Residential Tower

The form generates a positive outcome for view lines and vistas from the public domain. The outcome is consistent with the 2036 Plan sense of a gateway element for the southern end of Willoughby Road and Crows Nest Village.



- LR
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- VU

The Proposal

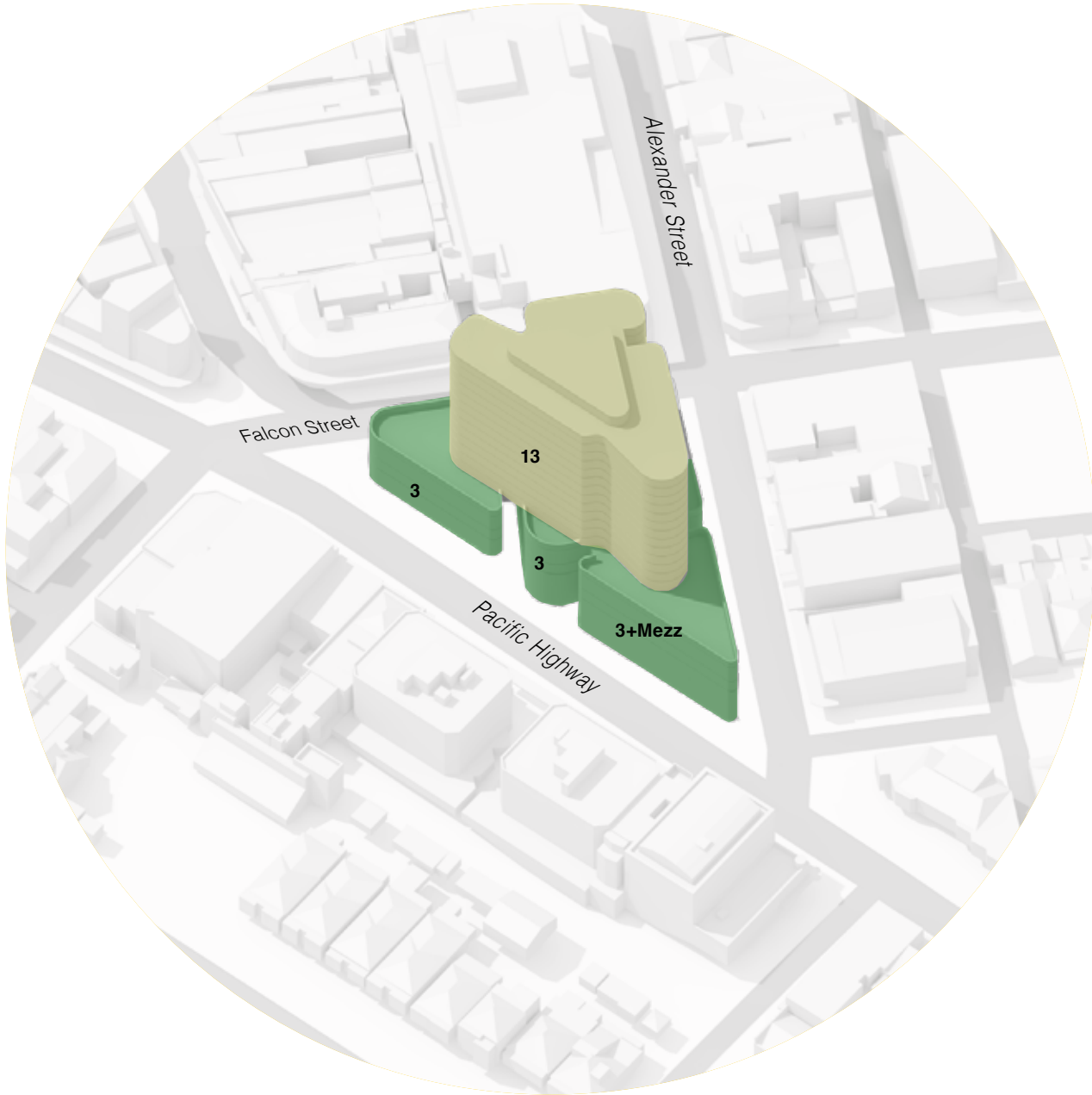
The proposal includes is composed of a 3-storey level podium and 13-storeys of residential apartments.

The height of the proposal is based on the revised planning control of the 2036 Plan and a comparative mixed-use building.

There is a 3-storey high podium, aligning with the 2036 Plan street wall control. The 13-storey residential tower above align with the height expectations for the site.

Within the tower the 8 to 12 apartments are arranged around an atrium, circulation core and communal corridors with access to natural daylight.

The design includes podium & rooftop landscape spaces for the use of residents.



Total Height (Including Podium)
16 Storeys

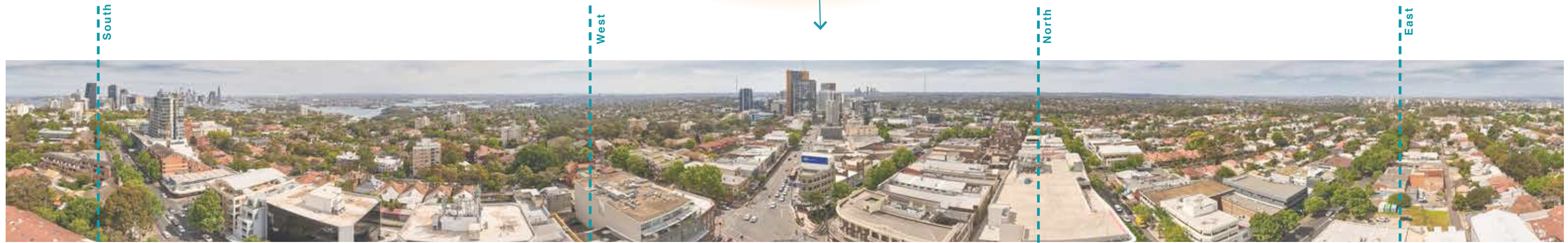
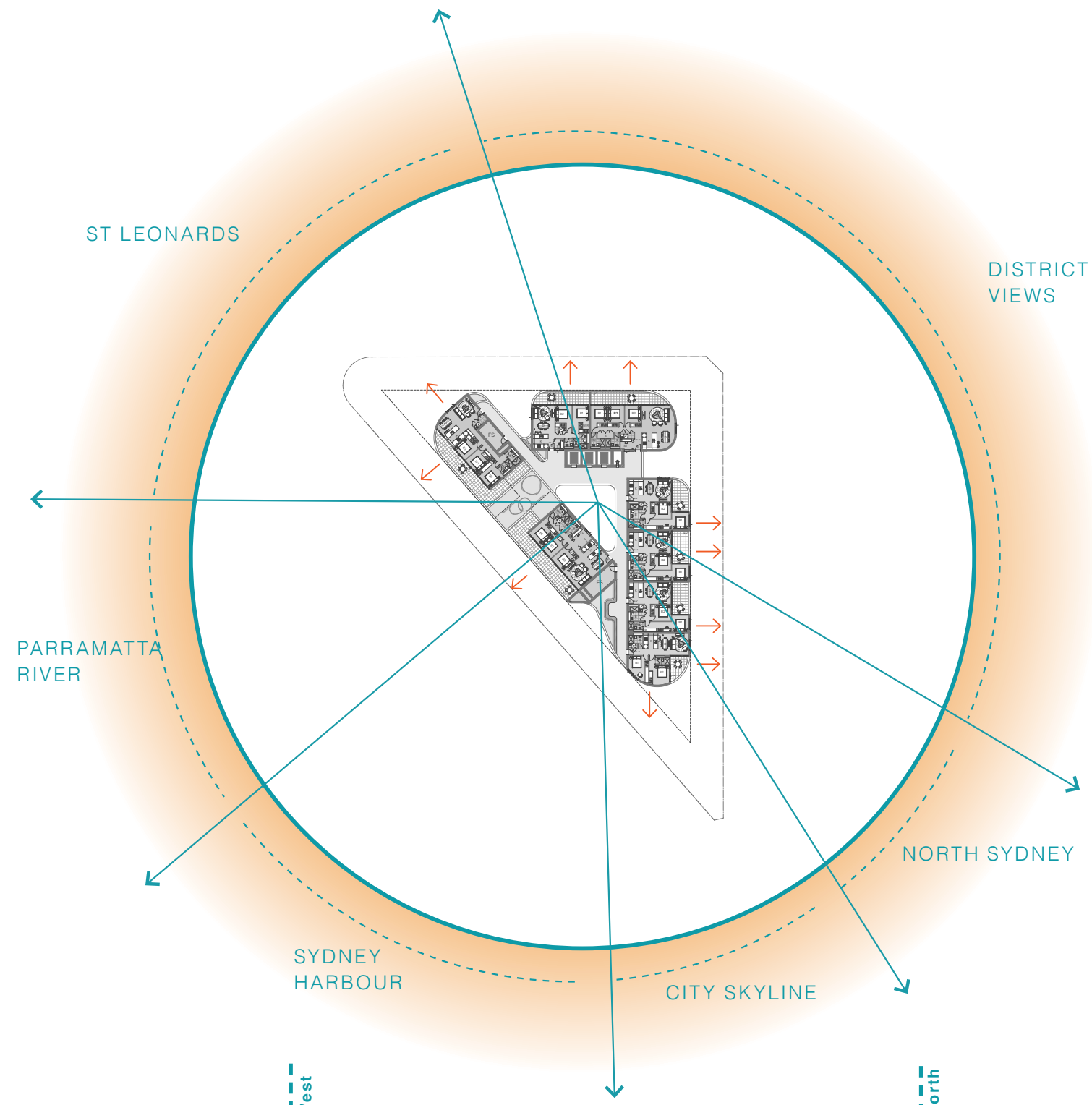
Podium GFA (3 levels)
8,002m²

Tower GFA (13 levels)
10,564m²

Typical Tower Floorplate GFA
829m²



Apartments are orientated to maximise views to the district, North Sydney, St Leonards, Sydney City CBD and the harbour.



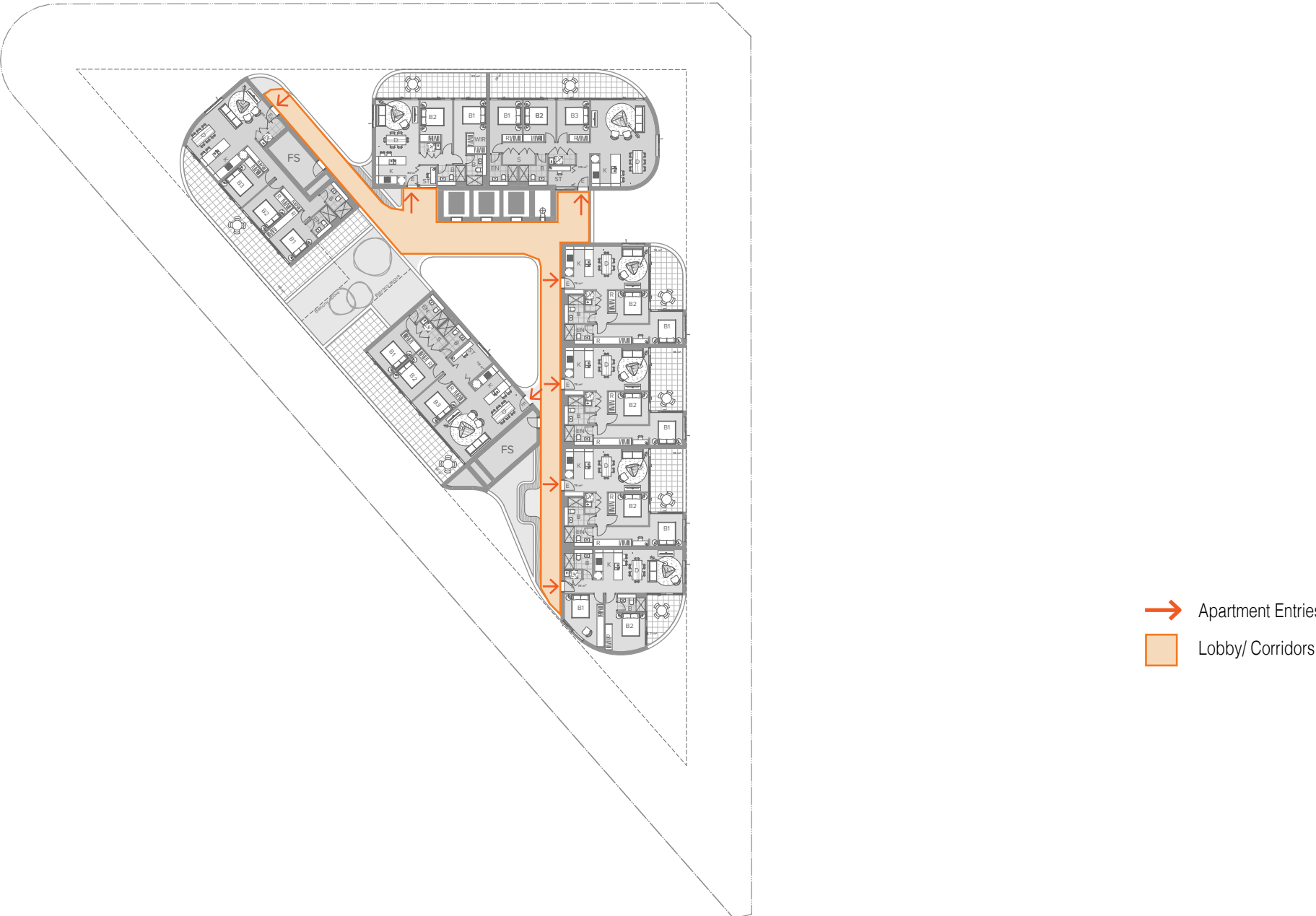
View Panorama - Level 15

Circulation & Core Strategy

Each common corridor has natural ventilation and daylight access through the openings at the end of each corridor. The central atrium adds flow to the natural ventilation and increases amenity. There is a maximum of 12 apartments accessed from the core.

Apartment Design Guide - Common Circulation

Objective 4F-1 - Common circulation spaces achieve good amenity and properly service the number of apartments.



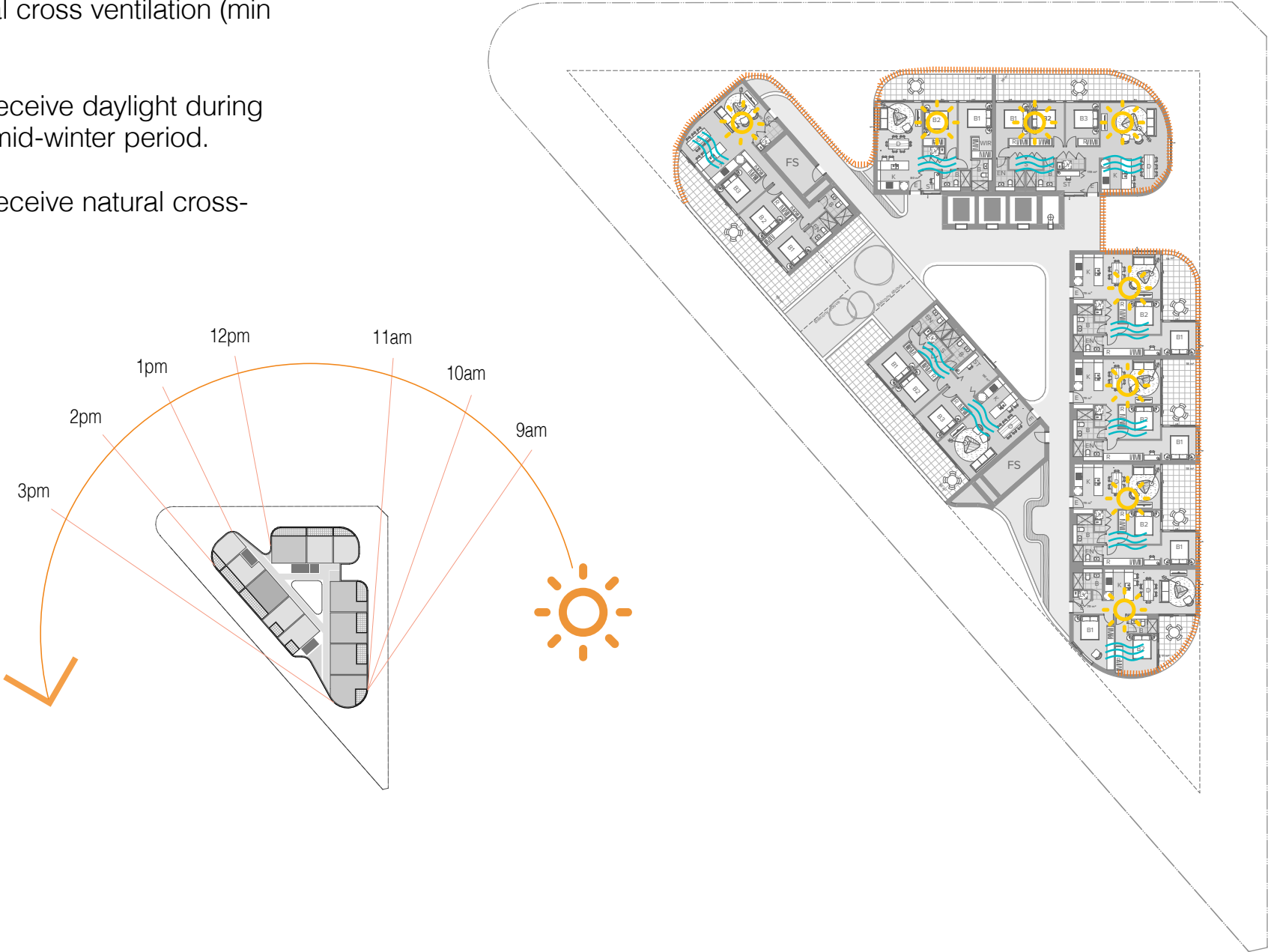
Tower Amenity




Apartment Design Guide - Solar and daylight access and Natural Ventilation

The tower form exceed the ADG design criteria for solar access (min 70%) and natural cross ventilation (min 60%).

All apartments receive daylight during the 9am - 3pm mid-winter period.

All apartments receive natural cross-ventilation.

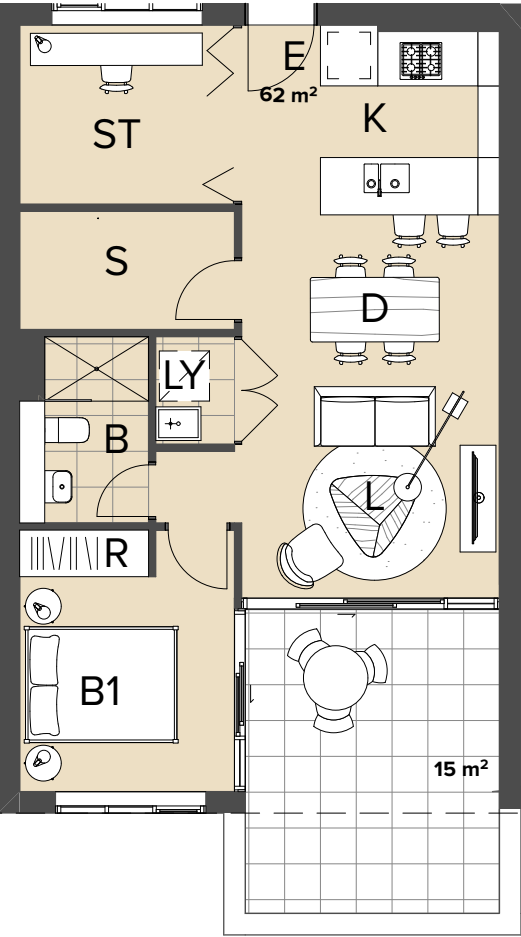


-  Apartments achieving minimum ADG solar access requirements
-  Apartments achieving minimum ADG cross ventilation requirements
-  Facade with Solar Access

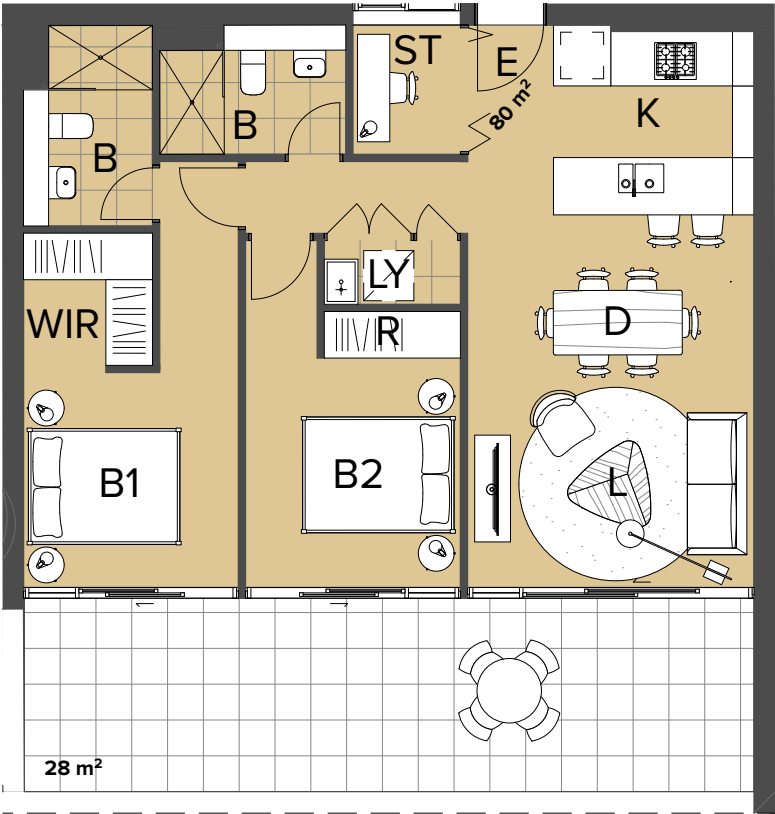
Residential Amenity

The tower form allows the design of the apartments to be logically organised and achieve excellent amenity. This is supplemented through the provision of generous balconies, ample storage space and integrated study areas with work-from-home (WFH) capacity. Windows and walls are placed to optimise views and maintain privacy.

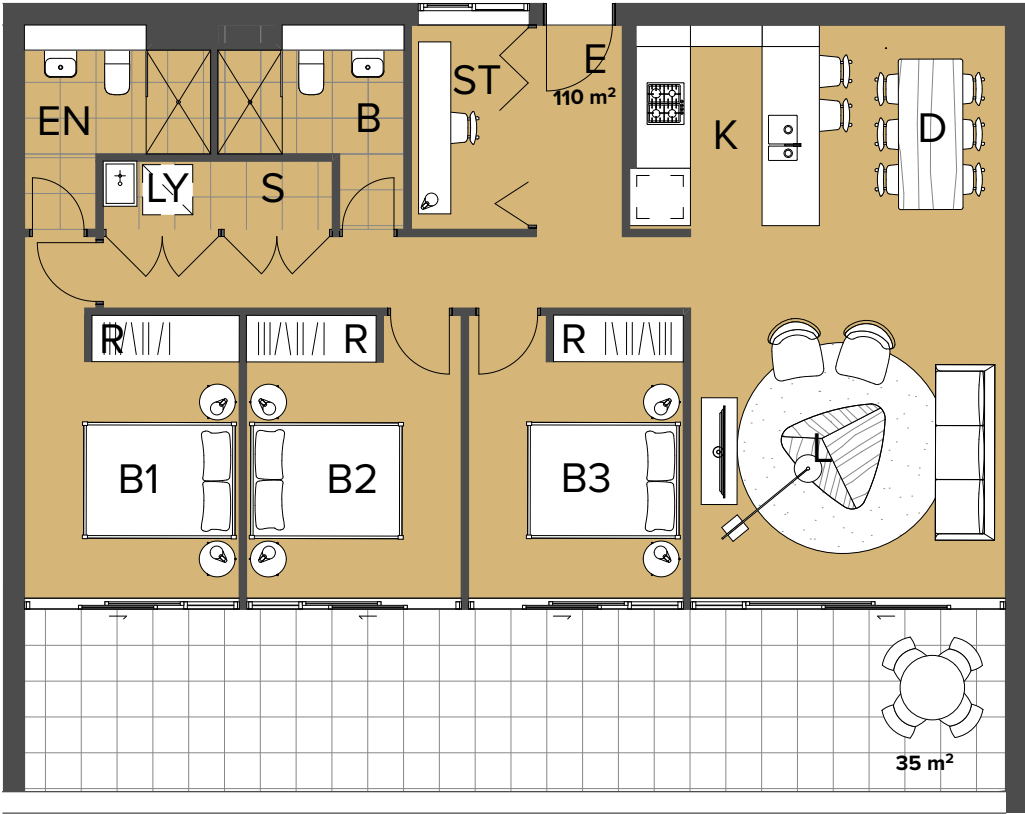
The plans demonstrate how ADG objectives for apartment size, planning, apartment depth and storage are achieved.



1 Bed + Study



2 Bed + Study



3 Bed + Study

09

ADG Response

ADG Guidance

Response

2A Primary Controls

Primary controls should be developed taking into account sunlight and daylight access, orientation and overshadowing, natural ventilation, visual and acoustic privacy, ceiling heights, communal open space, deep soil zones, public domain interface, noise and pollution.

The St Leonards and Crows Nest 2036 Plan outlines a set of key Urban Design Principles that are derived from the overall Plan Vision of a regenerated employment centre and growing residential community. These principles include increased density in close proximity to the stations, transition from larger development to lower density areas, and consideration of solar access to transition areas and areas outside of the Plan.

Further consideration of the proposal in light of the individual Urban Design Principles are outlined elsewhere in this report.

Regarding the Five Ways site, the Urban Design Principles are translated into a series of new planning controls which outline zones, heights (overall and street walls), setbacks and densities. Responding to these principles and indicative planning controls, a series of design solutions was tested on the site including consideration of the solar access to areas in the vicinity of the site, transitional heights and visual impact.

The indicative plans included in the proposal demonstrate a solution which is consistent with the 2036 Plan.

2B Building Envelopes

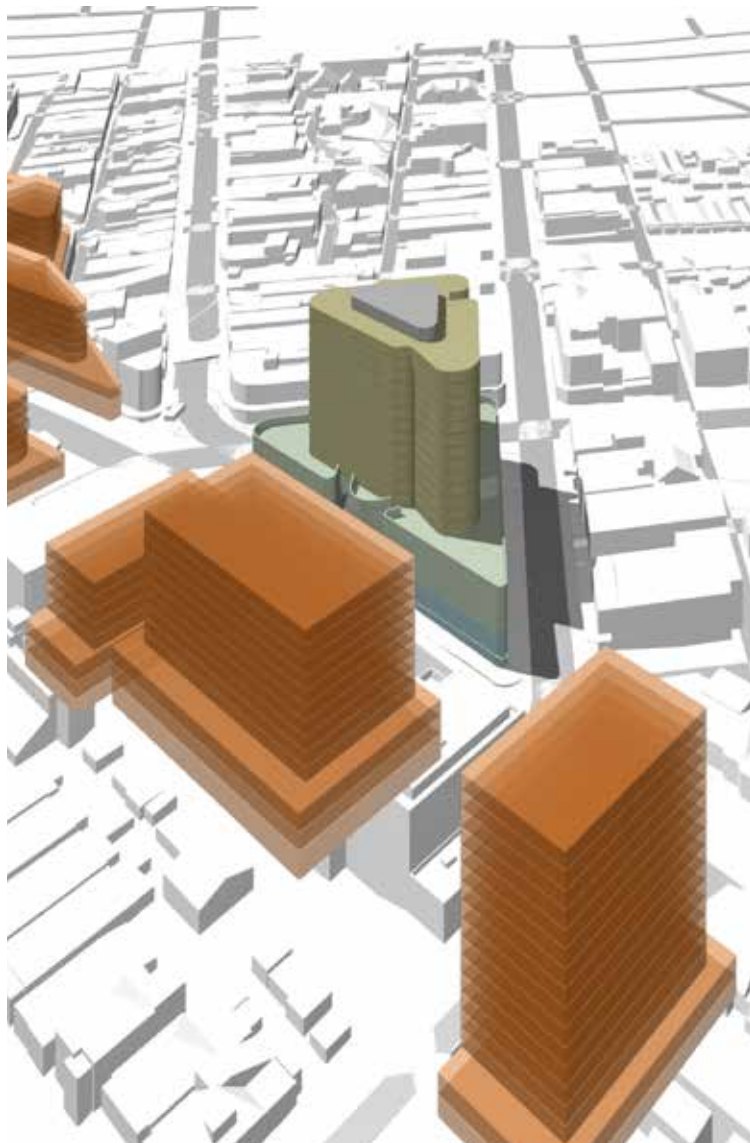
A building envelope should be 25-30% greater than the achievable floor area (see section 2D Floor space ratio) to allow for building components that do not count as floor space but contribute to building design and articulation such as balconies, lifts, stairs and open circulation space.

The 2036 Plan indicates a basic outline of the building envelope for the Five Ways Crows Nest site defined by new set of planning controls: street wall, tower setback, height and density.

For the proposal, a number of options were tested with respect to the overarching Urban Design Principles and the revised planning controls.

The indicative plans demonstrate an outcome within the spatial controls including an assessment of the solar access to areas in the vicinity of the site.

The urbanised nature of the site included consideration of landscape and tree canopy for the proposal. Planting on buildings including vertical gardens, street trees and roof-top gardens were included which necessitated the loose fit intended by the ADG.



ADG Guidance

Response

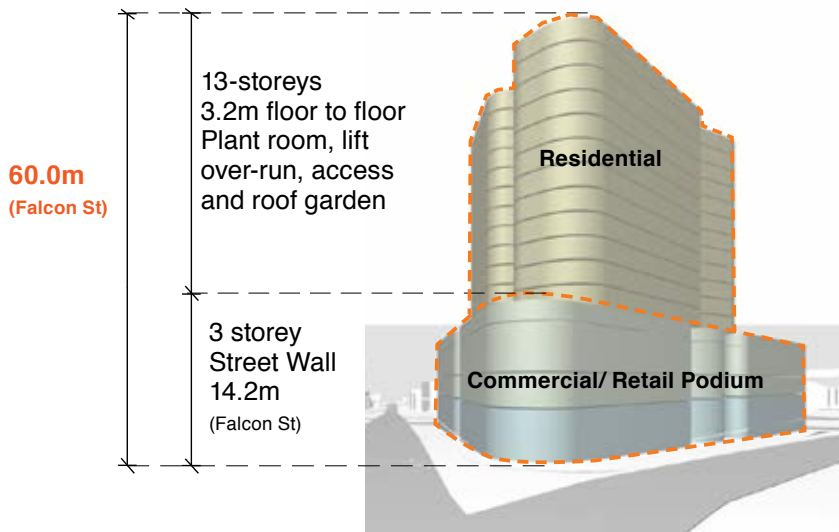
2C Building Height

Building height helps shape the desired future character of a place relative to its setting and topography. It defines the proportion and scale of streets and public spaces and has a relationship to the physical and visual amenity of both the public and private realms. Height controls should be informed by decisions about daylight and solar access, roof design and use, wind protection, residential amenity and in response to landform and heritage.

The 2036 Plan identifies height and street wall height controls for the site based on an Urban Design Study of the wider Crows Nest and St Leonards district.

The heights in the 2036 Plan include consideration of the overall Vision to regenerate the Crows Nest and St Leonards precinct for an expanding employment centre and growing residential community. The Plan outlines indicative planning controls showing a 16-storey overall height limit with a 3 storey street wall.

The building height is consistent with the 2036 Plan indicative height and was tested against the solar access controls. The arrangement and articulation of the podium aligns with the Urban Design Principle for transitional height from larger developments to neighbouring low-density areas.



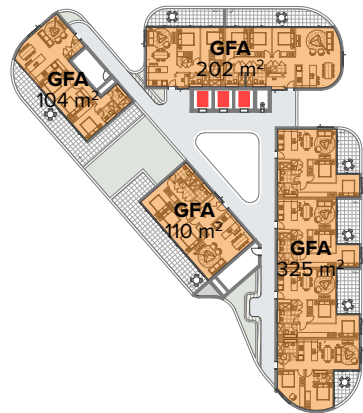
2D Floor Space Ratio

Floor space ratio (FSR) is the relationship of the total gross floor area (GFA) of a building relative to the total site area it is built on. It indicates the intended density. FSR is a widely used method for estimating the development potential of a site.

The 2036 Plan includes indicative plans outlining potential densities for both residential and non-residential components for the Five Ways Crows Nest site.

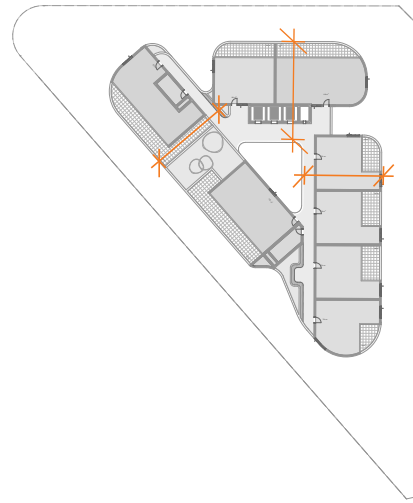
The location of the proposal has excellent amenity being in close proximity to the Crows Nest Village and Willoughby Road precinct and also in close proximity to the Hume Street entry of the new Crows Nest Metro station (240m). The proposal includes the minimum floor space for non-residential uses.

Given the amenity of the area and proximity to the Metro Station and the 2036 Plan Vision of a regenerated employment area and growing residential neighbourhood the proposal is consistent with the Plan and the aims of the ADG.



ADG Guidance

Response



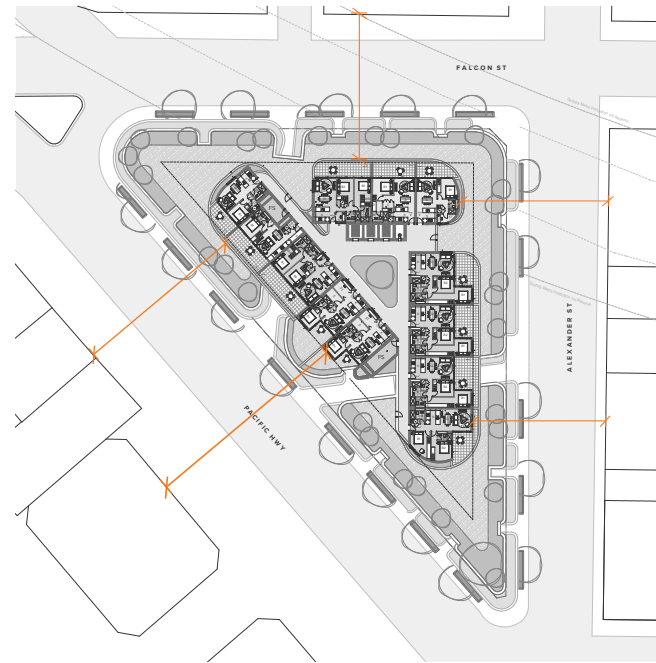
2E Building Depth

Building depth is an important tool for determining the development capacity of a site. It is the overall cross section dimension of a building envelope. Building depth dimensions typically include articulation such as projecting balconies, gallery access, eaves, overhangs, sun hoods, blades and other architectural features.

The 2036 Plan seeks to optimise the liveability of the Crows Nest and St Leonards neighbourhood in both the placement of density and height and the amenity of the regenerated sites.

The preparation of the proposal investigated several outcomes for the site. The residential tower is arranged in a building with central circulation and atrium servicing 8-12 apartments. This arrangement was tested in light of the ADG criteria, particularly solar access, natural cross ventilation and the amenity of common space. The indicative plan demonstrates the profile of the tower (13 - 17m).

The building form changes at street wall height into a commercial/retail building with a series of public walks to create a more permeable ground plane and commercial levels with optimised access to natural daylight.



2F Building Separation

Building separation is the distance measured between building envelopes or buildings. Separation between buildings contributes to the urban form of an area and the amenity within apartments and open space areas.

The Five Ways Crows Nest site is located at the junction of three different roads and hence is characterised as an island site. The orientation and placement of apartments allows the design to meet the ADG objectives.

Within the site there is a fine-grain approach to privacy with the placement of individual apartments determined by access to outlook, solar access and natural cross-ventilation. All apartments look out to the street and enjoy views to the district, the cityscape of St Leonards, North Sydney, Sydney CBD and Sydney Harbour.

The indicative floor plans proposal have considered ADG objectives including for solar access, natural cross-ventilation and privacy. The floor plans indicate that the ADG objectives are obtainable by the scheme allowing excellent amenity for the residential dwellings.

ADG Guidance

Response

2G Street Setbacks

Street setbacks establish the alignment of buildings along the street frontage, spatially defining the width of the street. Combined with building height and road reservation, street setbacks define the proportion and scale of the street and contribute to the character of the public domain.



The 2036 Plan Urban Design Principles include consideration of the existing character of the Crows Nest and St Leonards district. Part of the character of the area is the distinctive street wall heights and alignments of the main retail streets, particularly around the Crows Nest Village precinct.

The proposal follows the indicative controls of the 2036 Plan and adopts a 3-storey height to the street frontages. An additional setback is included in the central block area to allow additional space for retail activation, landscape elements including street trees and for the bus interchange on site.

The street wall elements of the proposal are articulated and modulated to speak to the typical rhythm of different buildings observed in the surrounding retail streets. A fine-grain materiality is designed to respond to material cues in the context while providing a building enclosure that can develop a handsome patina.

The residential tower is setback from the street wall to allow a clear visual distinction between street wall and tower and also to provide landscape terraces to the podium level apartments.

The ground floor of the proposal contains the most public spaces of the development. The commercial levels above are serviced by ground floor lobbies. The residential areas above have a clear separation from the public areas at grade and the commercial levels in between.

Residential and commercial lobbies are legible from the public domain and do not detract from the retail activation at grade.

2H Side and Rear Setbacks

Side and rear setbacks do not apply to this proposal as the subject site is an isolated island site separated from neighbouring properties by streets.

10
**Placemaking
Strategies**

Human-scale design

A series of human-scale design moves are deliberately integrated into the Planning Proposal as part of the place making strategy.

The following categories have been addressed to assist in creating a sense of place and identity for the development site.



GREENERY
Greener People & Places



EQUITY
Equitable & Inclusive



MOBILITY
Conscious Mobility



WELLNESS
Healthy Streets & Places



RESILIENCE
Adaptable & Resilient



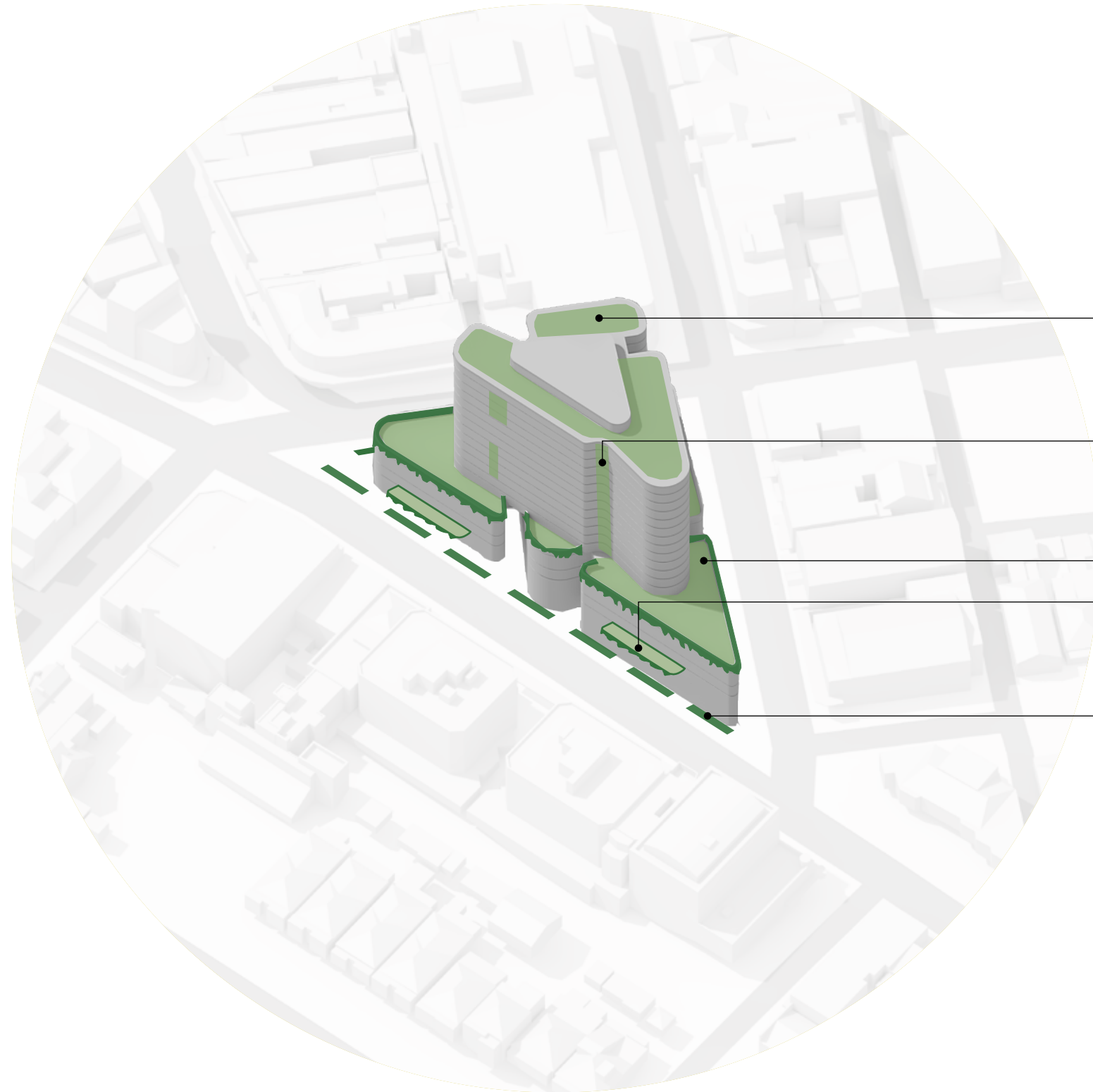
IDENTITY
Celebrate Unique Character &
Create Attachment



URBANITY
Loveable Places

Landscape Replacement Area Control

Communal landscape zones and/or vertical plantings to encourage abundant and accessible greenery in high-rise urban environments.



- Tower private roof gardens
- Tower facade gardens
- Residential Podium roof garden
- Awning planters
- Ground Floor street planting



Placemaking Strategies: Greener People & Places

Landscape Replacement Area Control

Green View Index & Tree Canopy

A healthy and well-managed tree canopy provides multiple environmental, social and economic benefits.



Tower private roof tree canopy

Residential podium roof tree canopy

Ground floor pedestrian pathway tree canopy



Placemaking Strategies: Greener People & Places

Green View Index & Tree Canopy

Mobility on Demand Network - Optimised Access to Car Share

Building upon the sharing economy, the opportunity to reduce the number of vehicles in our cities and neighbourhoods assist in mitigating issues of vehicles on the road, parking, pollution, accidents and congestions on the roads. As such, the proposed development includes the provision of 12 car share spaces.



Car Share Spaces



Placemaking Strategies: Conscious Mobility

Mobility on Demand Network - Optimised Access to Car Share

Food & Water

The increasing shift towards safeguarding the environment is leading to a rise in demand for environmentally friendly goods locally made products, organic foods and access to water.

To support this sustainability consideration agenda, local retail and businesses need to be prioritised in local communities to safeguard these values.



 Fresh Produce Retailers



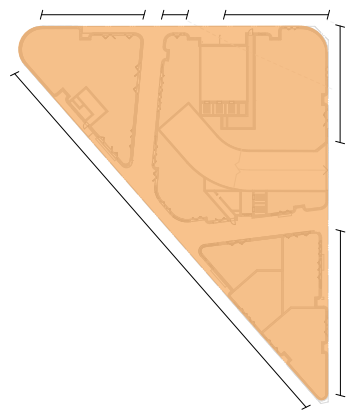
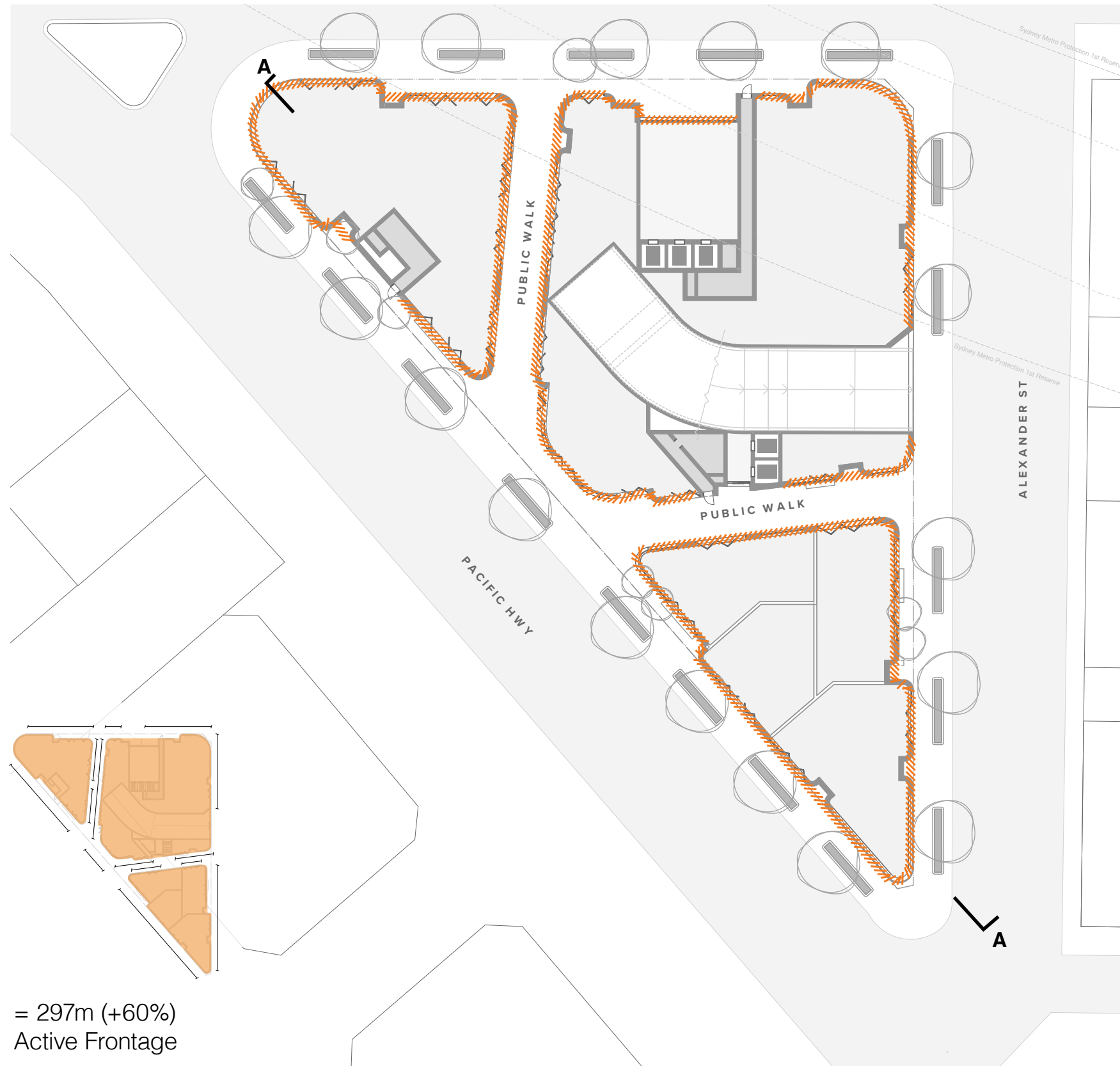
Placemaking Strategies: Healthy Streets & Places

Food & Water

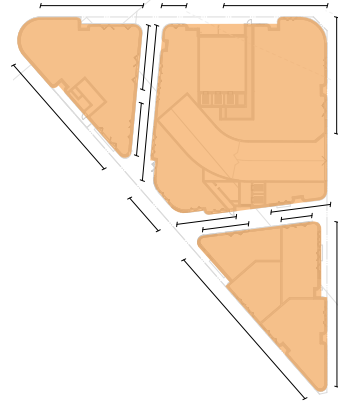
Adaptable Ground Floors

Activated building frontages maximise pedestrian pleasure and enjoyment, and in turn increase opportunities for social interaction and street commerce.

The segmented podium and generous arcades of the proposed development maximises opportunity for active frontages on the Ground Floor.



= 190m
Active Frontage



= 297m (+60%)
Active Frontage

Active Edges

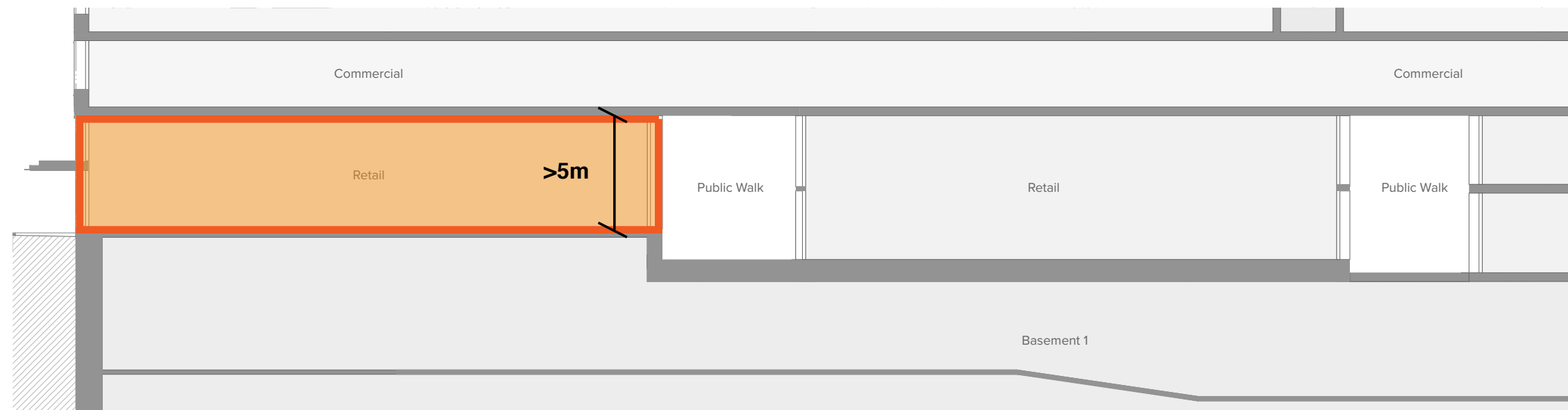



Placemaking Strategies: Adaptable & Resilient

Active Edges

Adaptable Ground Floors

Adaptable ground floors have a generous floor-to-ceiling height, active frontages and awnings to create shelter for pedestrians (for commercial and retail uses).



 Ground Floor Retail Space



Placemaking Strategies: Adaptable & Resilient

Adaptable Ground Floors

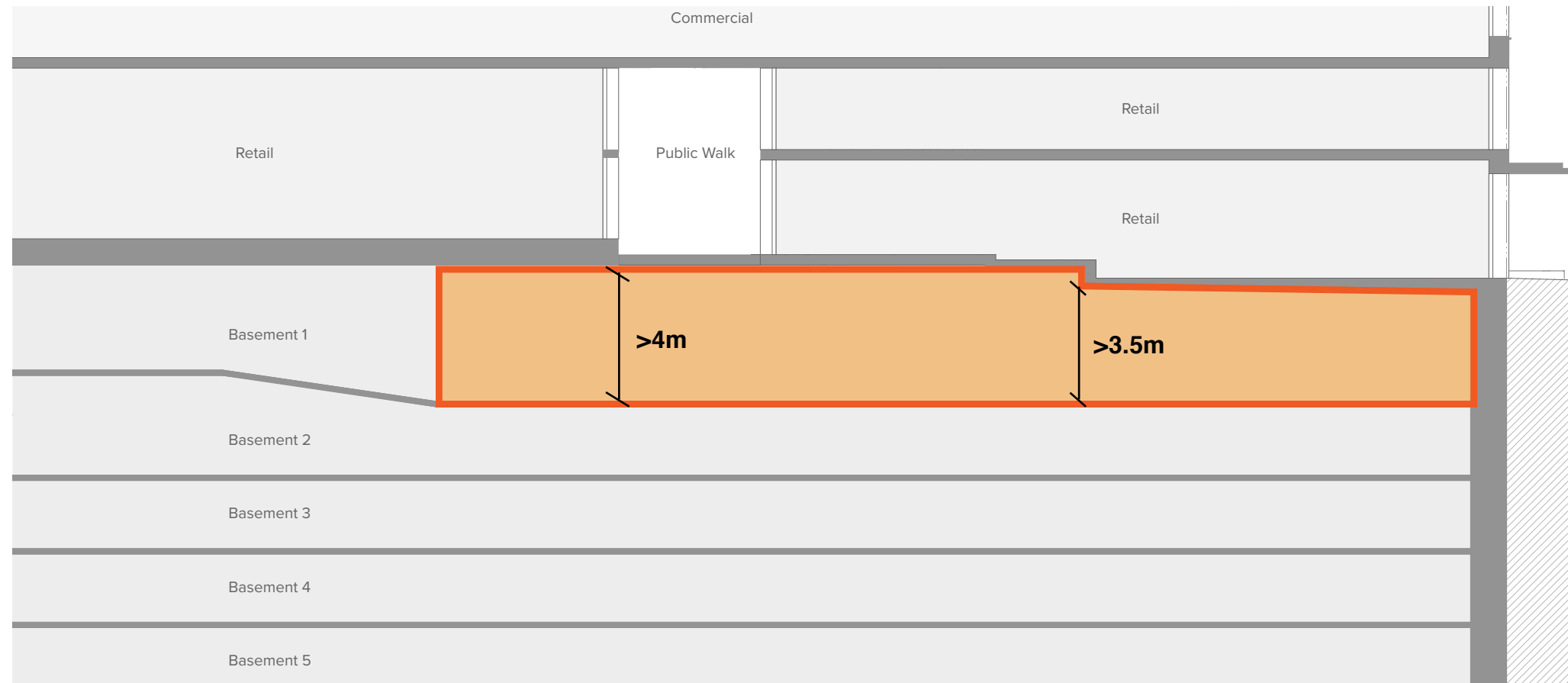
Flexible Parking

For a variety of reasons urban residents will increasingly drive fewer cars and as a result the need for parking spaces will diminish over time. The zone within Basement 01, as highlighted above, is proposed with an appropriate ceiling height to enable the space to be easily adaptable to alternative future uses.




Placemaking Strategies: Adaptable & Resilient

Flexible Parking



Section B: The increased ceiling heights of over 3.5m in the adaptable basement zone enables flexibility for future uses.

 Adaptable Basement Zone

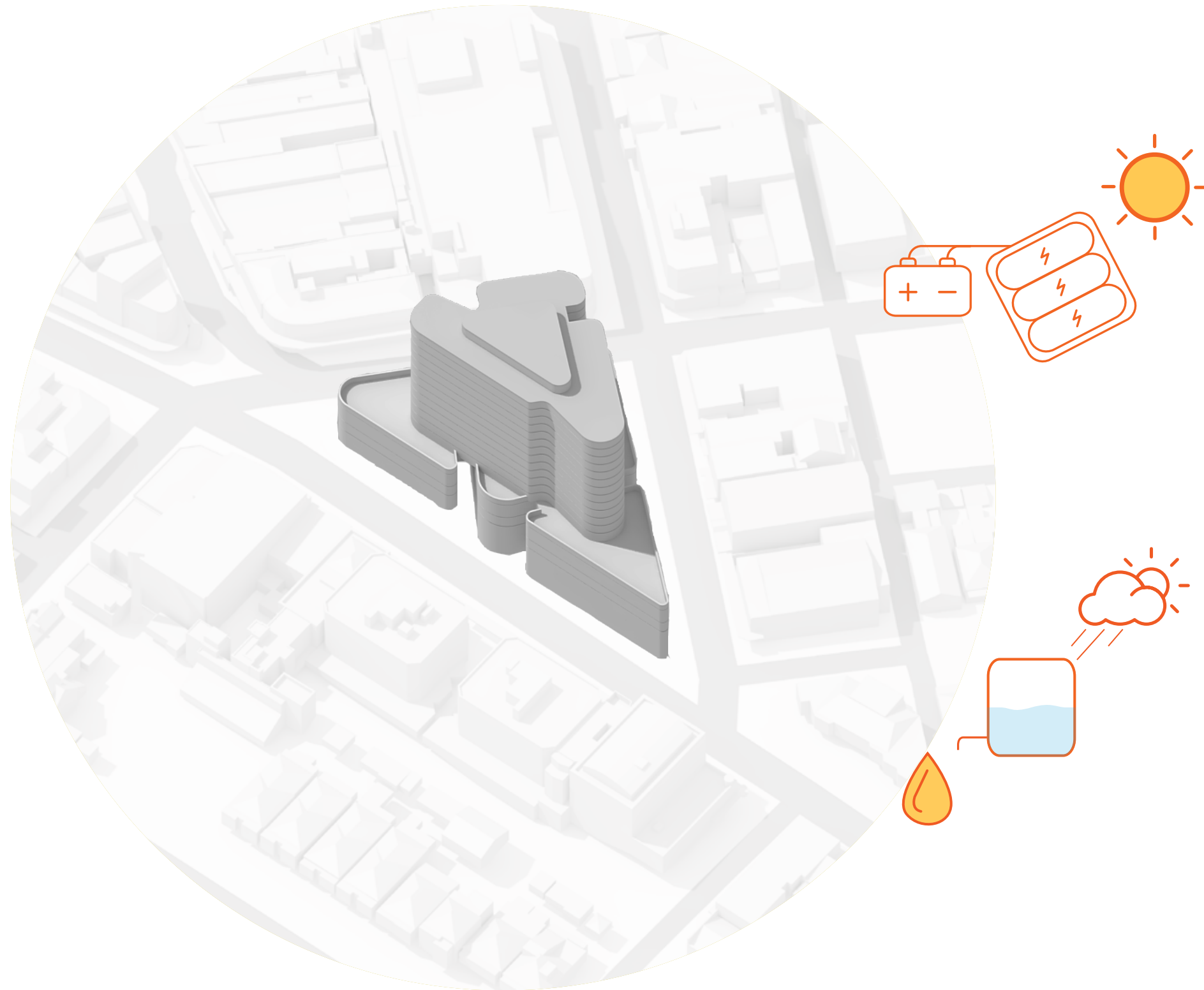


Placemaking Strategies: Adaptable & Resilient

Flexible Parking

Net Positive Energy & Water

The living building challenge envisions a safe, reliable and decentralized power grid, powered by renewable energy, supplied to incredibly efficient buildings and infrastructure without the negative externalities associated with combustion or fusion. It also envisions a future whereby all developments are configured based on the carrying capacity of the site: harvesting sufficient water to meet the needs of a given population while respecting the natural hydrology of the land, the water needs of the ecosystem the site inhabits, and those of its neighbours.



Placemaking Strategies: Adaptable & Resilient


Net Positive Energy & Water

Productive Gardens

This productive garden space aims to build community cohesion and self sufficiency whilst encouraging involvement and integration.



Podium Roof top Gardens

 Potential Areas for Productive Gardens



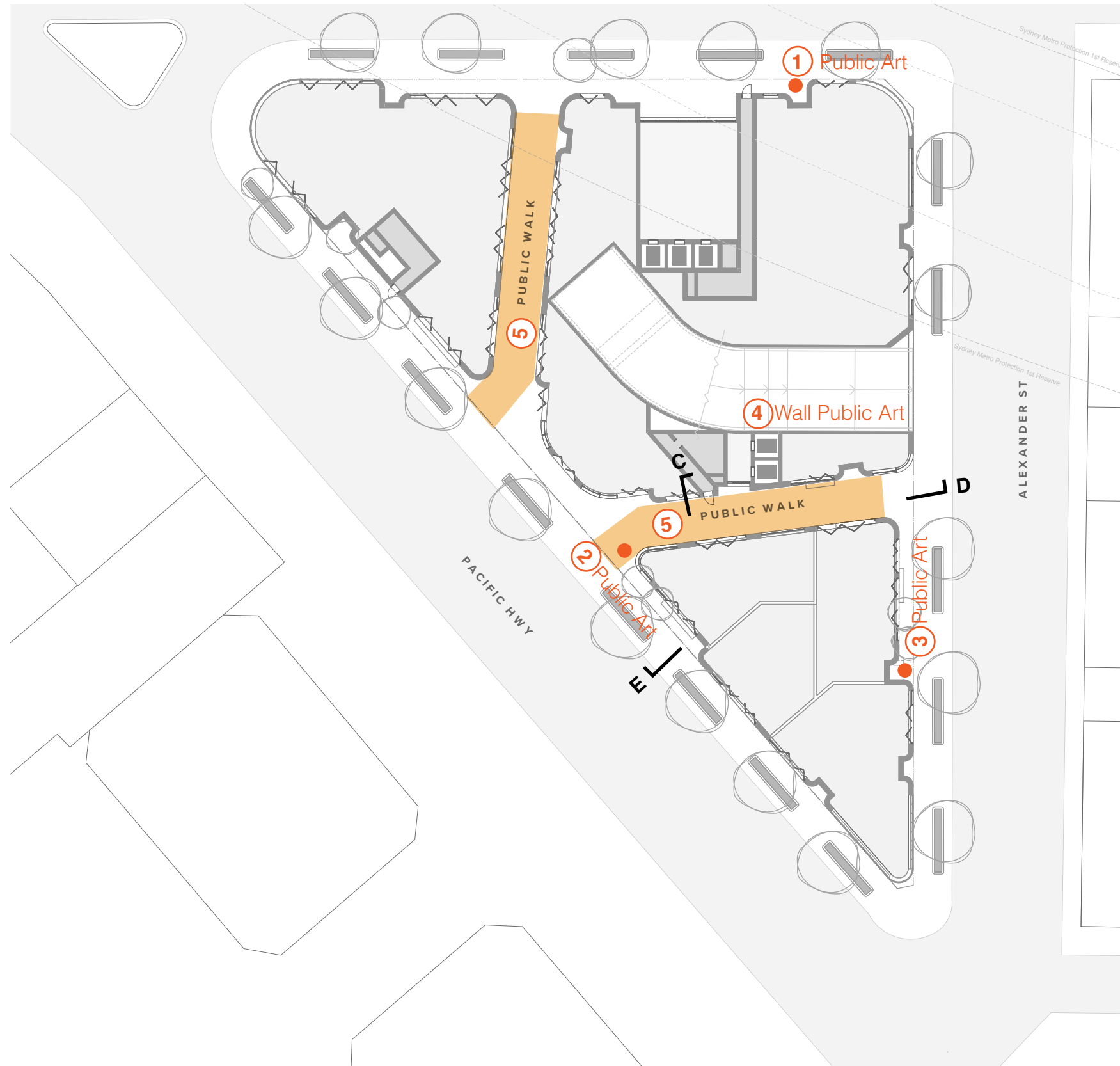
Placemaking Strategies: Adaptable & Resilient

Productive Gardens

Local Public Art

Public artists are sense agents of change and are highly influential in the process of place making. Murals, sculptures, lighting and other forms of public art can act as 'pause points' along streets and within public spaces.

The provision of potential locations for Public Art has been incorporated into the proposal, allowing for diversity in form and expression.

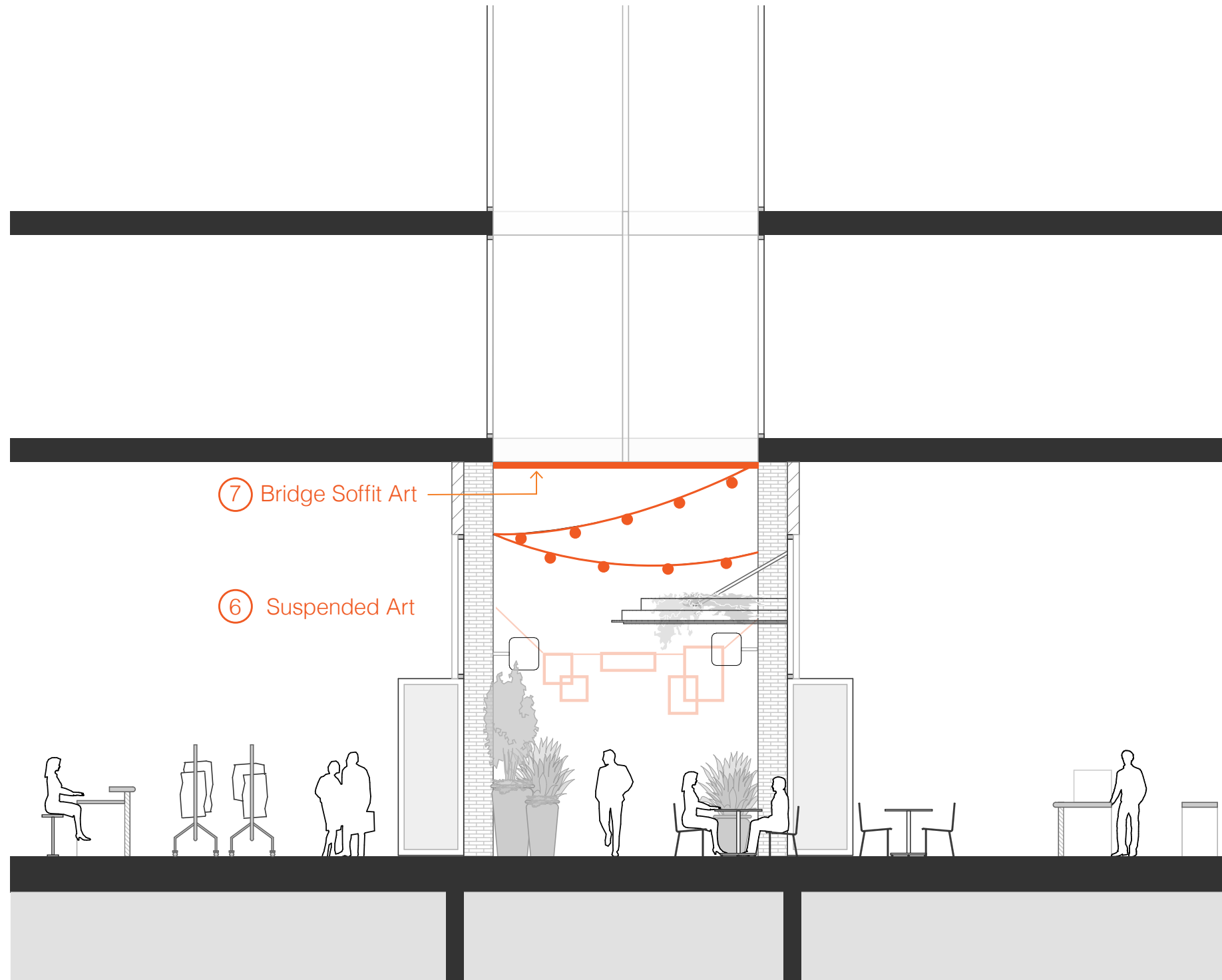


Public Walk Floor Area



Placemaking Strategies: Celebrate Unique Character & Create Attachment

Local Public Art

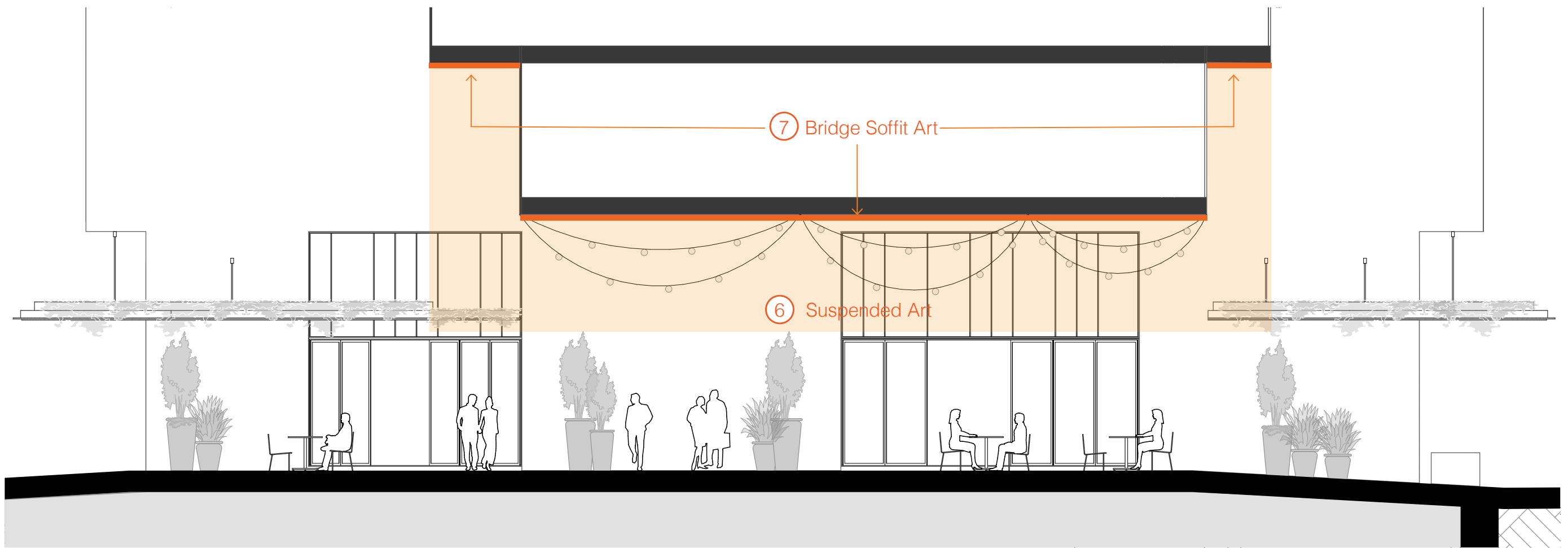


Section C: Public Walk Suspended Art Locations



Placemaking Strategies: Celebrate Unique Character & Create Attachment

Local Public Art

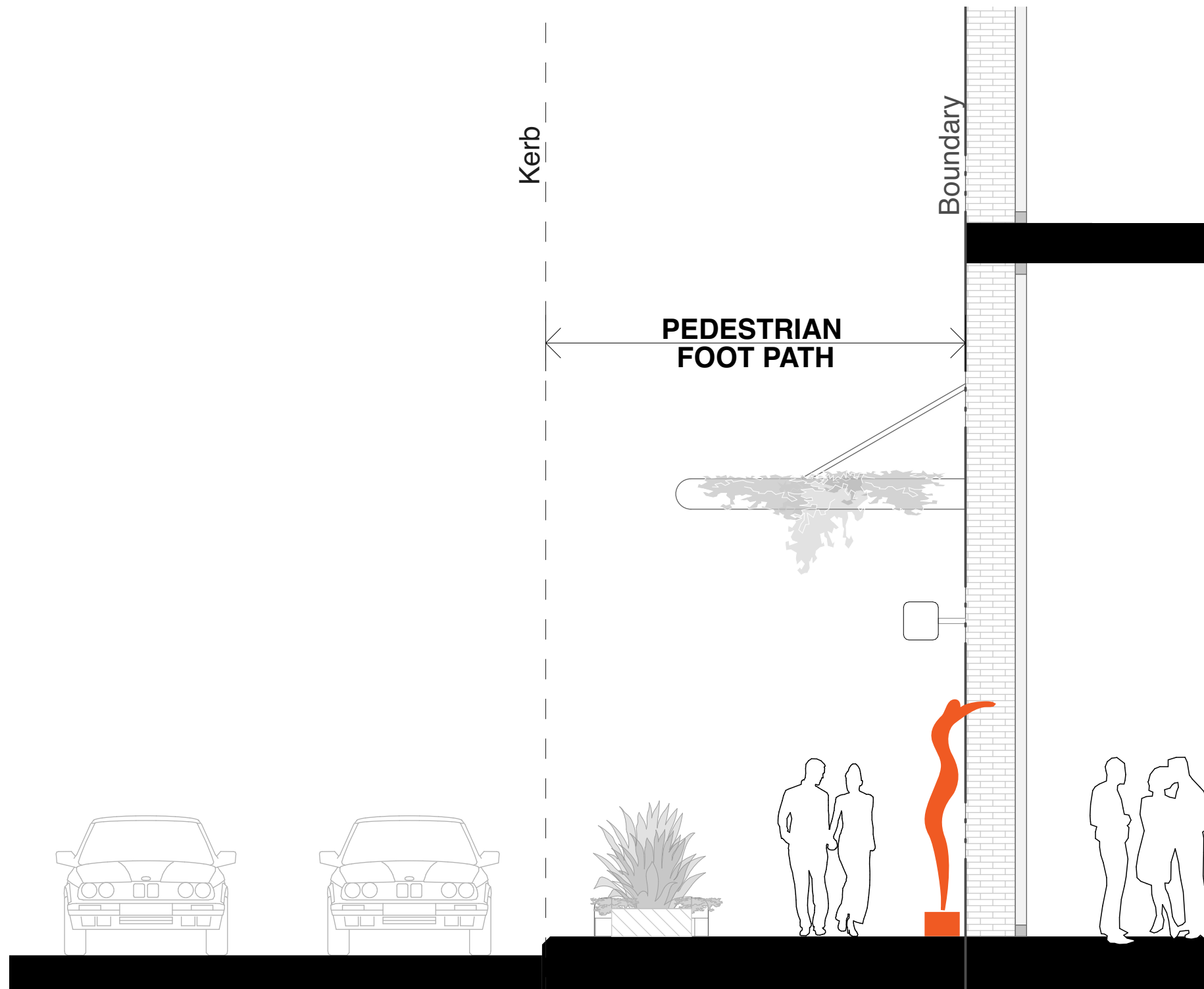


Section D: Public Walk Suspended Art Locations



Placemaking Strategies: Celebrate Unique Character & Create Attachment

Local Public Art



Section E: Example of freestanding public art piece



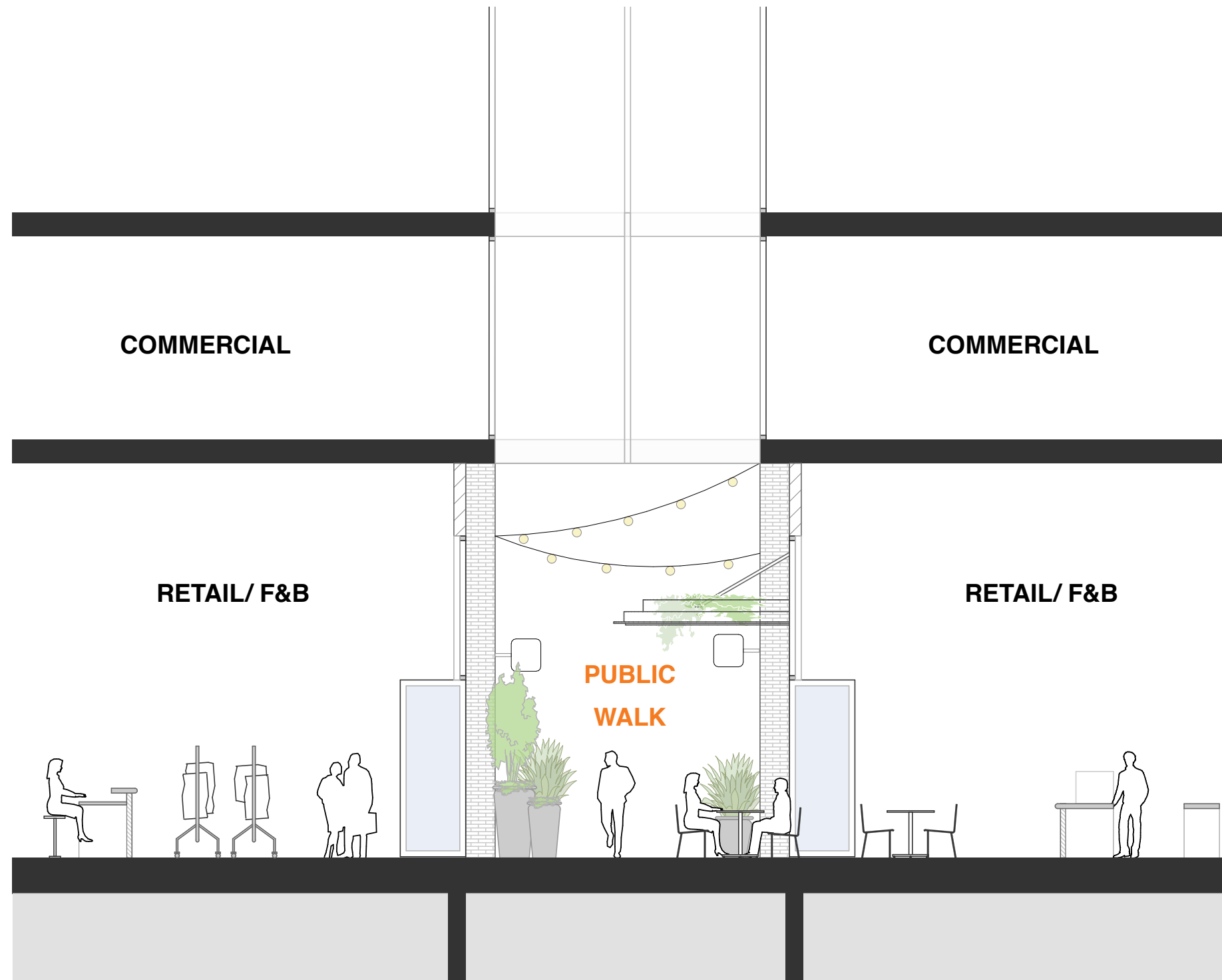
Placemaking Strategies: Celebrate Unique Character & Create Attachment

Local Public Art

Public Walk as “Outdoor Rooms”

Designing public walks and arcades as places means incorporating multiple activities with regular affordances.

An affordance is a mix of public and private elements grouped at key locations to help furnish outdoor rooms, create delight, lingering and chance social encounters.




Creative Live/ Work Places

Creative live/work spaces are dwellings that cater for working-from-home and/ or there is shared office space in the building.

These contribute value to places by offering spaces for those who work flexibly or are involved in creative, entrepreneurial or start-up industries.



 Integrated Home Studies

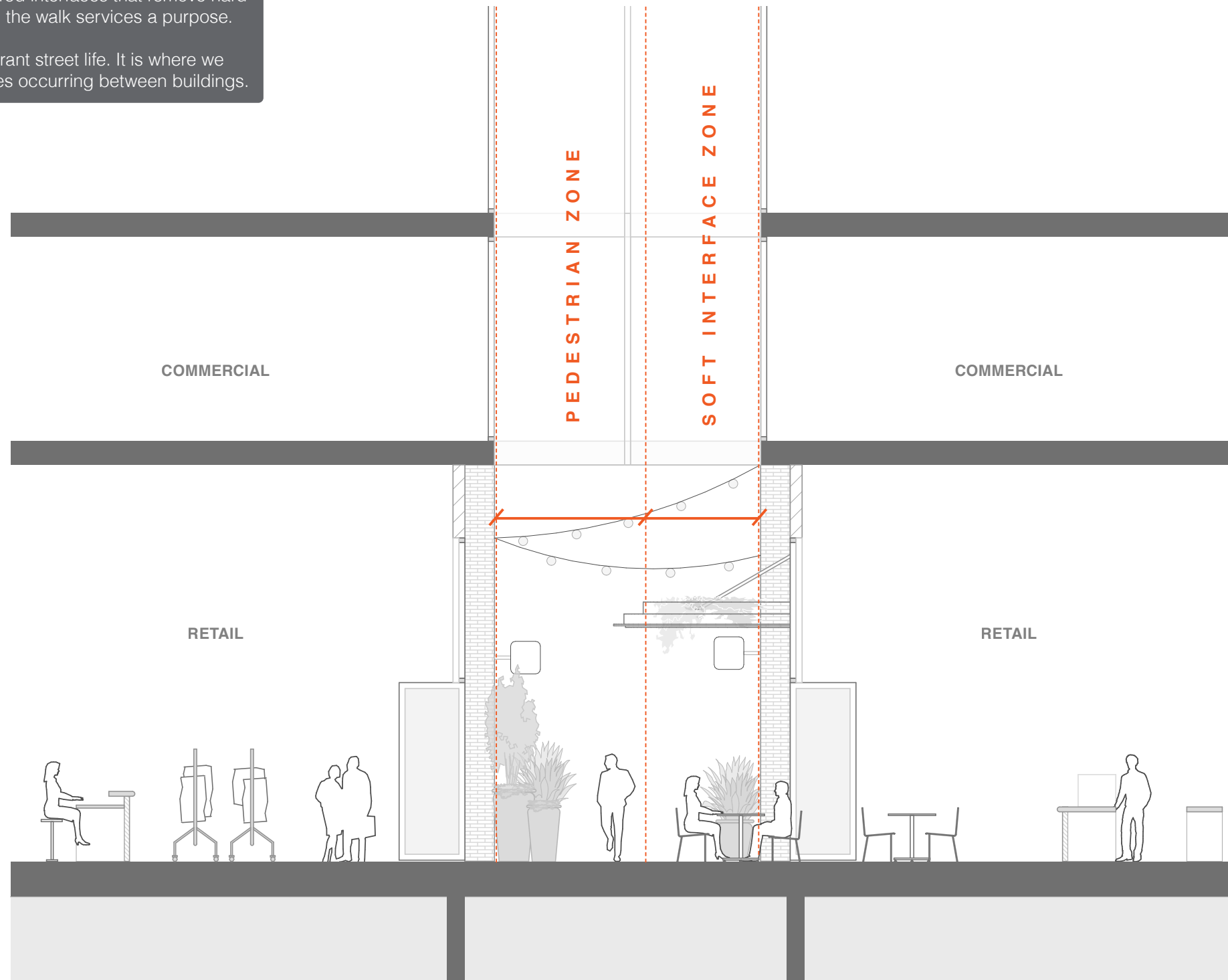


Placemaking Strategies: Celebrate Unique Character & Create Attachment

Creative Live/ Work Places

Soft City & Diversity at the Ground Floor

A soft city approach is centred on providing layered interfaces that remove hard boundaries in city spaces. People will walk when the walk services a purpose. Therefore, mixing and layering uses. Diversity at the ground floor helps to create a vibrant street life. It is where we can find a range of activities, uses and exchanges occurring between buildings.

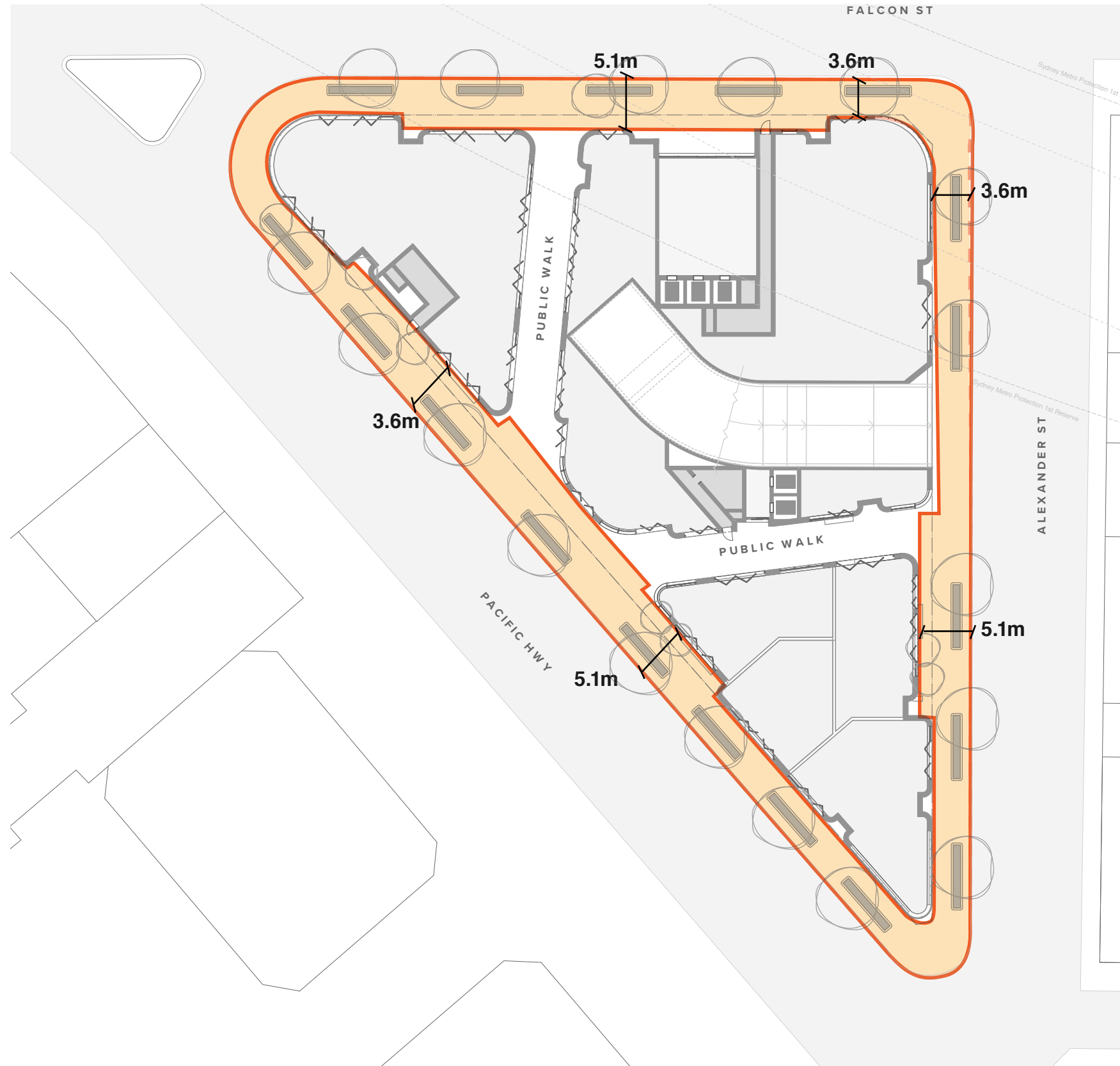


Placemaking Strategies: Loveable Places

Soft City & Diversity at the Ground Floor

Footpath Width

Footpaths should be wide enough to include space for the active frontage zone, pedestrian clear path, furniture zone and street buffer zone.



Placemaking Strategies: Loveable Places

Footpath Width

Pedestrian Microclimate

Positive pedestrian microclimates enhance the safety and comfort of users at the street level. A comfortable relationship to the sun and wind creates a good microclimate, essential for sitting, and people lingering and enjoying the space (Source: Jan Gehl).

This protection can be achieved through awning coverage, landscaped elements and trees. Shrubbery can provide mid-height buffering from nearby traffic and wind, whilst trees can provide mid to high-height protection.

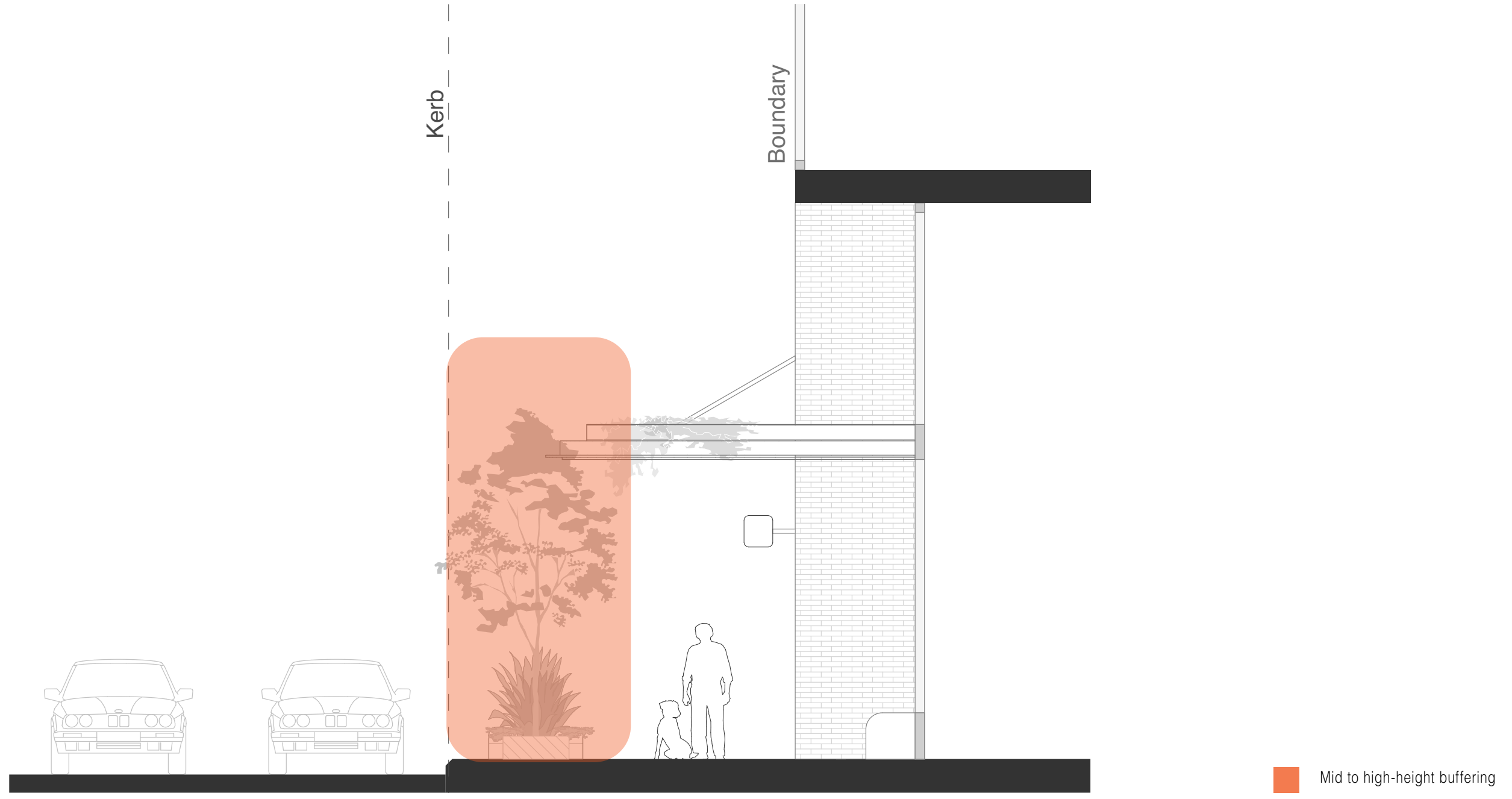


- Low-height buffering
- Mid to high-height buffering



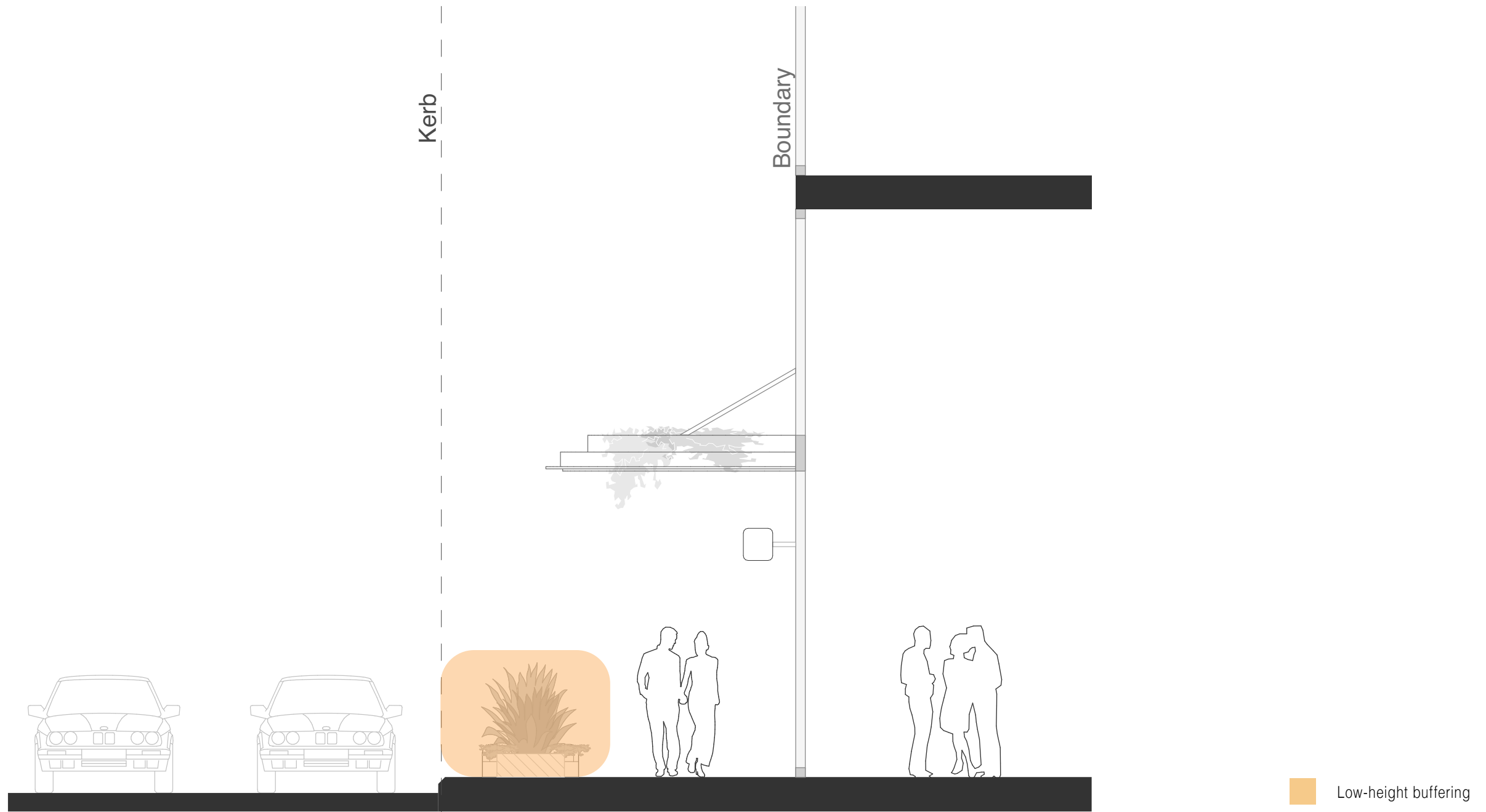
Placemaking Strategies: Loveable Places

Pedestrian Microclimate



Section E: Mid-height footpath buffering



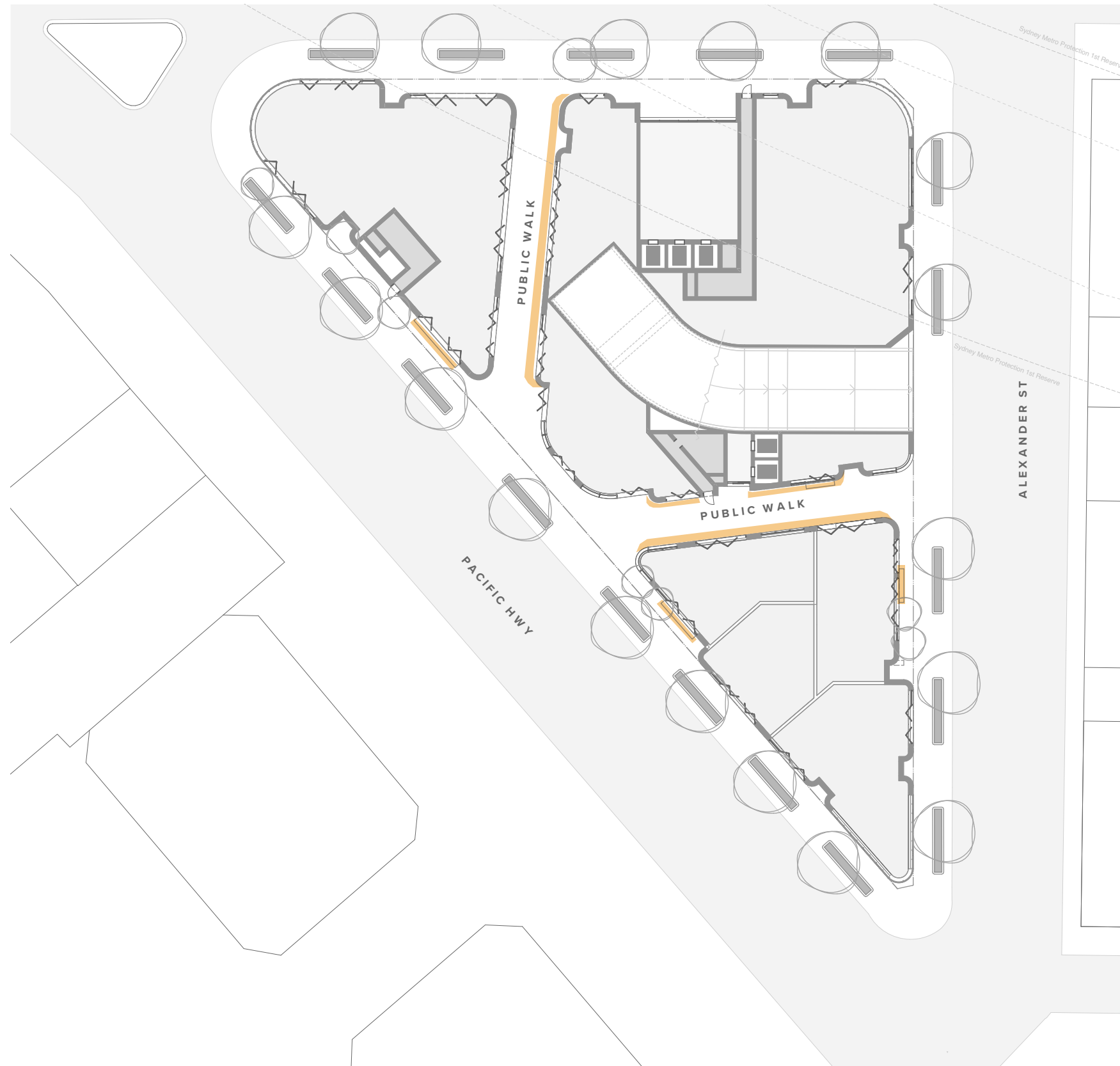


Section F: Low-height footpath buffering



Places to Stop & Rest

Number, frequency and variety (e.g. benches, bubblers, etc.) of public furnishings have been incorporated to allow people to stop and rest. Street furniture should be inclusive with carefully considered locations to allow for a variety of uses and interactions available for different people's needs and preferences.



Rest Zones

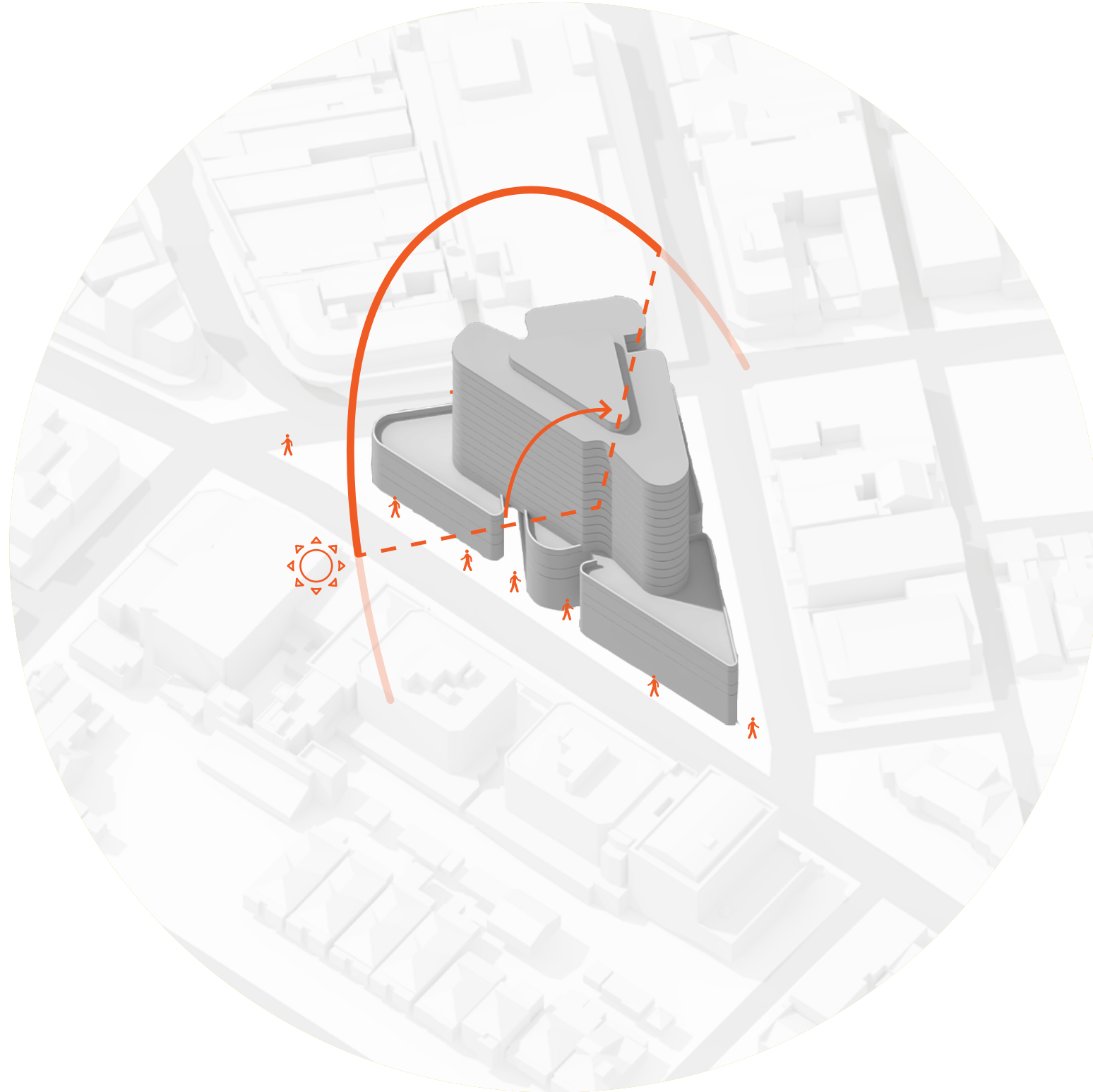


Placemaking Strategies: Loveable Places

Places to Stop and Rest

18hr City

18-hour cities is an emerging trend which can be generally defined as second-tiered metros, whereby many businesses operate beyond the typical 9-5 hours, but less than the 24h operations commonly seen in bigger cities. This classification is relevant to the subject site, which will contain retail spaces operating beyond typical hours, creating prolonged daily activity in the area.



Placemaking Strategies: Loveable Places

18 Hour City

11

Visual Analysis

View Analysis

A view analysis study for the proposal was prepared based on site photography from streets and the public domain around the site.

The analysis is an updated of earlier studies prepared by the Government Architect NSW as part of the urban design analysis of the precinct.

The following images consider the envelope form of the proposed building in the local context.

The visual analysis imagery and analysis was prepared by Urbaine Architectural following a methodology based on the requirements of the Land and Environment Court 'Use of photomontages' policy.





Photomontage of Building Extents

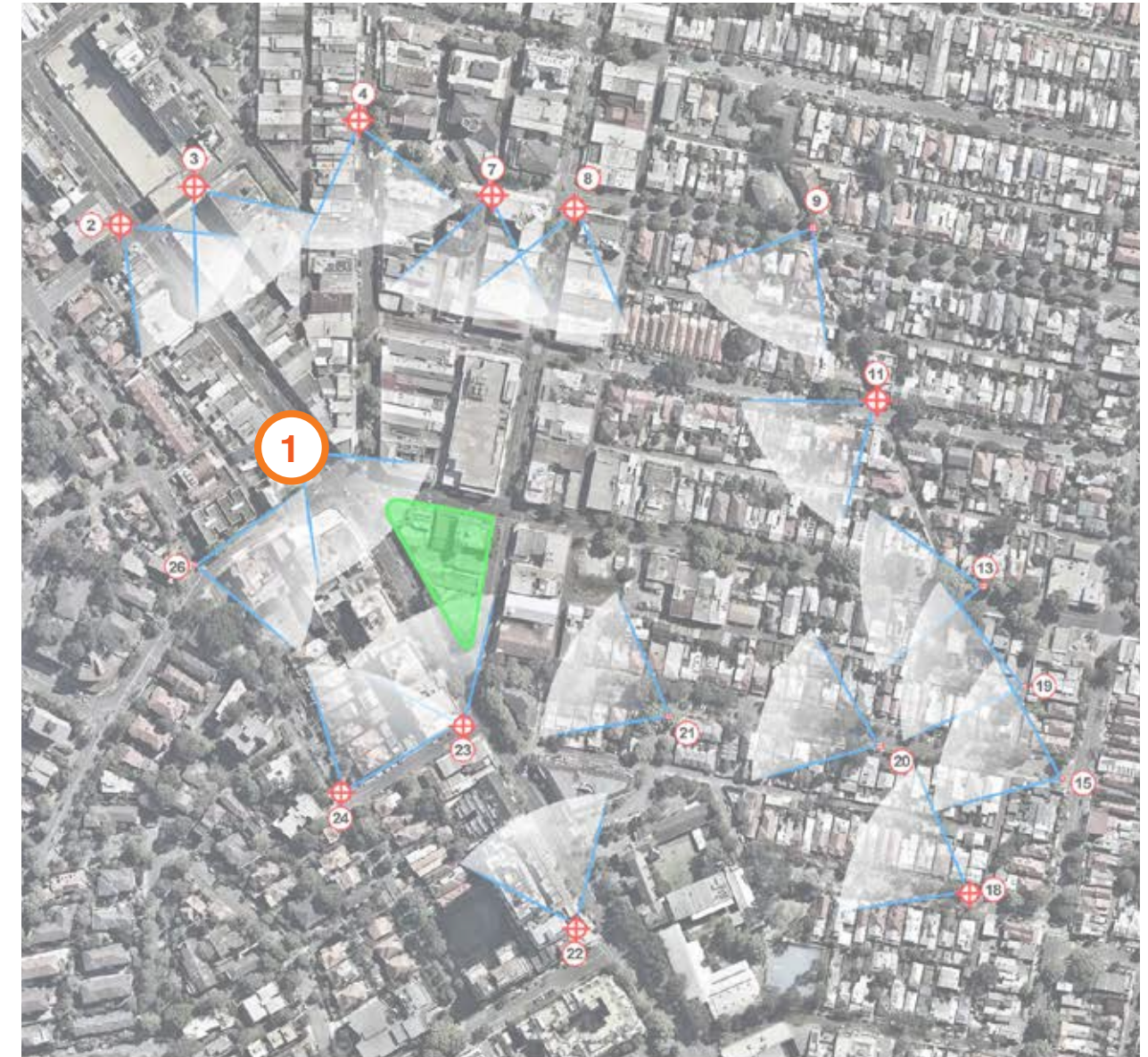
Analysis of Visual Impact: View 1

This is a dynamic, public viewpoint, looking south east towards the subject site, with an unobstructed view of the new proposal, across the junction with Pacific Highway, Falcon Street and Shirley Road.

The extent of visual impact is considerable from this location, as the building stands as a focal landmark point or gateway element at the geographical centre of Crows Nest, a symbolic position reinforced as a positive attribute within

both the 2036 Plan and the Roberts Day place making report.

The surrounding buildings are all of commercial and retail use and of varied architectural styles and heights, between 2- and 6-storeys. This area of Pacific Highway in Crows Nest is the most elevated part of the immediate vicinity and, as such the visual impact of the new proposal does not result in any material view loss, only sky view loss.



Location & View Map

The use of a defined podium will assist in creating a sense of separation of the building elements, allowing the lower levels to integrate into the existing urban fabric and the upper towers to act as the landmark icon.



Photomontage of Building Extents

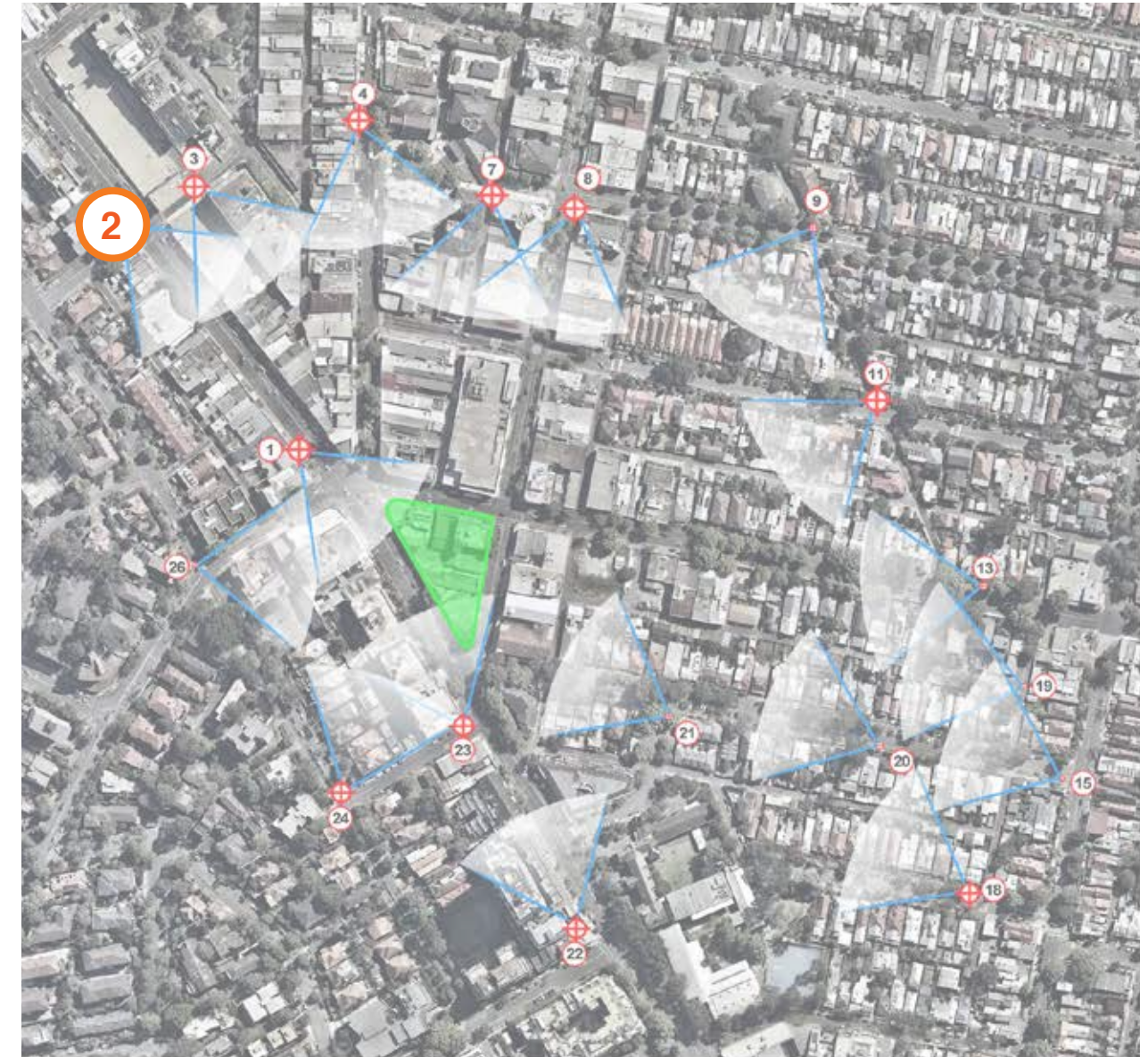
Analysis of Visual Impact: View 2

This is a dynamic, public viewpoint, looking south east towards the subject site, with a partial view of the upper levels of the new proposal but with most of the podium level obscured by foreground buildings, particularly at the main junction.

The extent of visual impact is significant at a distance, but not oppressively so. The retail buildings along Pacific Highway are mostly 2- and 3-storeys and of mixed quality.

The raised position of the new proposal clearly allows the new proposal to act as a beacon for the suburb of Crows Nest and the core of its future development plans.

Across the Pacific Highway is a new train station development, part of the plan for growth for this suburb and in keeping with the intent of the new proposal.



Location & View Map

Visually, the upper portions of the built form will be lighter and more open in their structure and materiality than the podium, serving to diminish the visual impact against the sky. There is no loss of view as a result of the low viewing angle relative to the raised site.



Photomontage of Building Extents

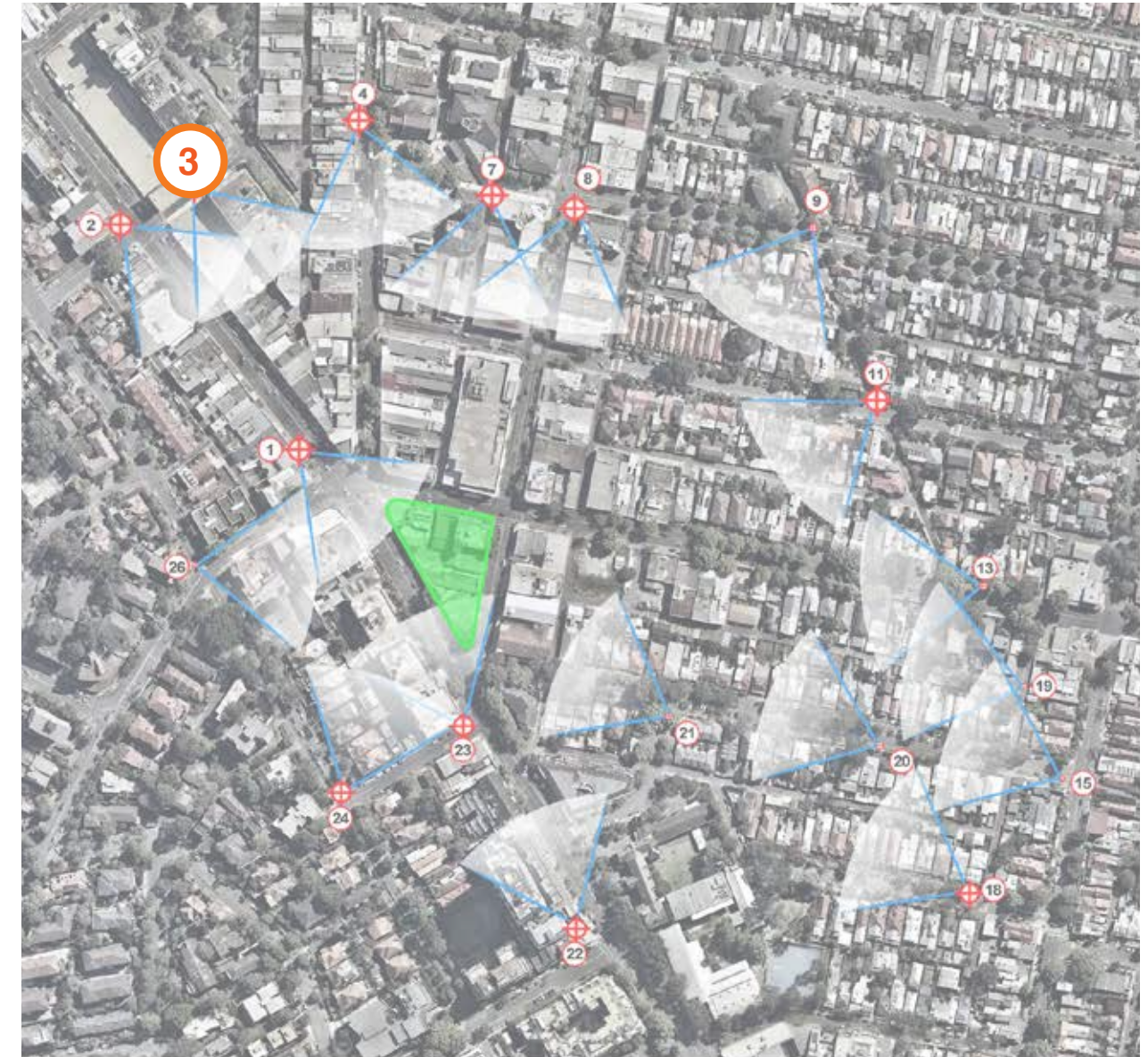
Analysis of Visual Impact: View 3

This is a dynamic, public viewpoint, looking south east towards the subject site, with a partial view of the upper levels of the new proposal but with all of the podium level obscured by foreground buildings, particularly those located at the main Five Ways junction.

The extent of visual impact is relatively significant at a distance but will be obscured further with the completion of the new metro station building, currently underway on the

corner of Pacific Highway and Hume Street. The buildings in the foreground are commercial and between 4- and 6- storeys in height, with little architectural merit.

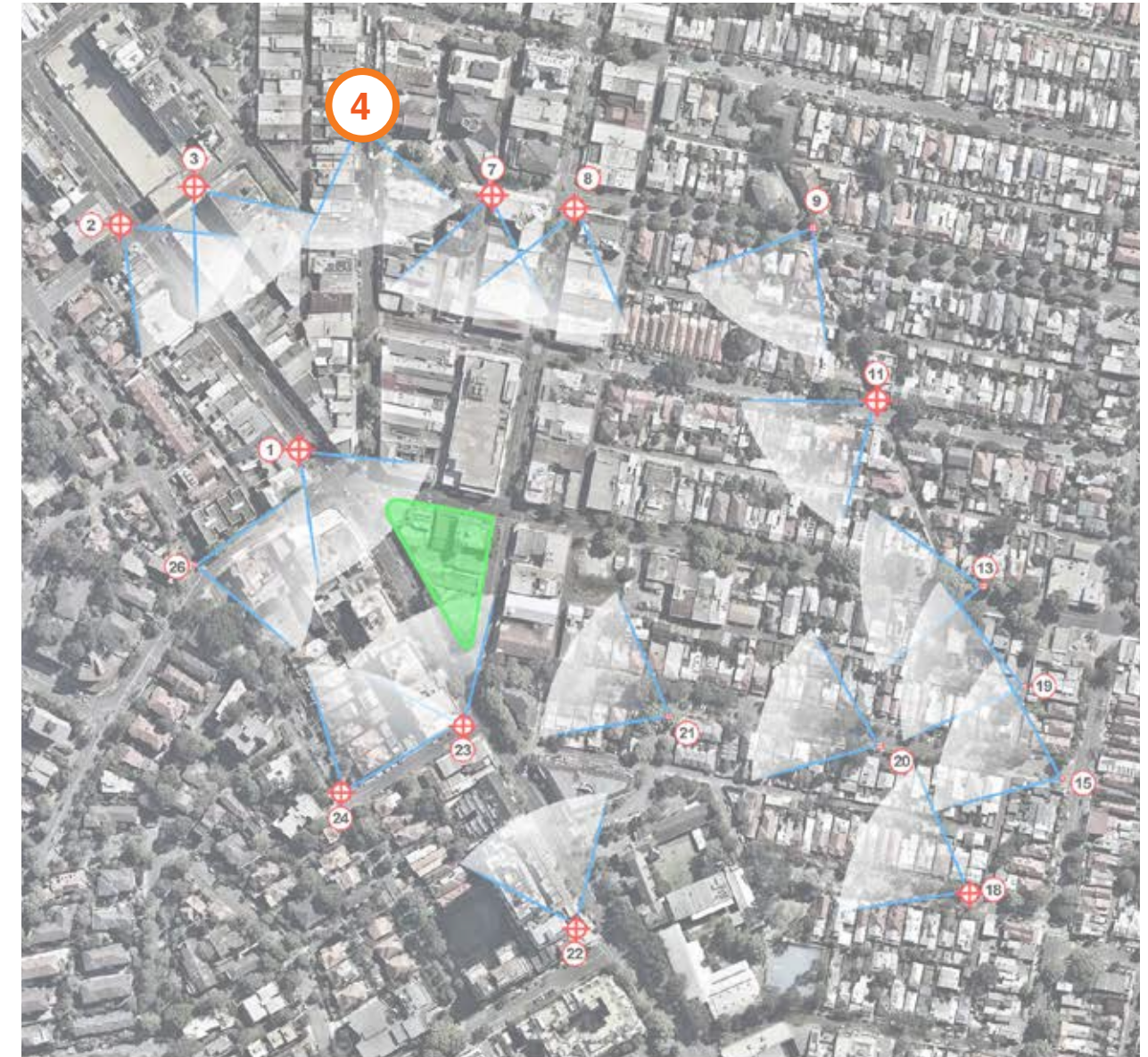
The visibility of the proposal from this location again serves to reinforce its role as a central visible landmark or 'gateway element' for the hub of the suburb.



Location & View Map



Note: the proposal is obscured by foreground elements in this view



Location & View Map

Photomontage of Building Extents

Analysis of Visual Impact: View 4

This is a dynamic, public viewpoint on the main shopping street of Crows Nest, being Willoughby Road. The view looks south towards the subject site, with a partial view of the upper levels of the new proposal but with almost all of the podium level obscured by foreground buildings, particularly those located at the main Five Ways junction.

Willoughby Road is lined with mature trees which serve to conceal a large portion of the upper levels of the proposal.

The visual glimpses seen between the trees assist in maintaining the proposal's purpose as a symbolic and visual focal point for the suburb, particularly in its heightened position in the area.

The larger amount of traffic in this area will be pedestrian and the building's architecture and built form will need to relate to a human scale in terms of its materiality and break down of overall massing. Materiality will reflect the buildings

function, whilst also serving the secondary purpose as an 'sign-posting' or 'gateway element' landmark.



Photomontage of Building Extents

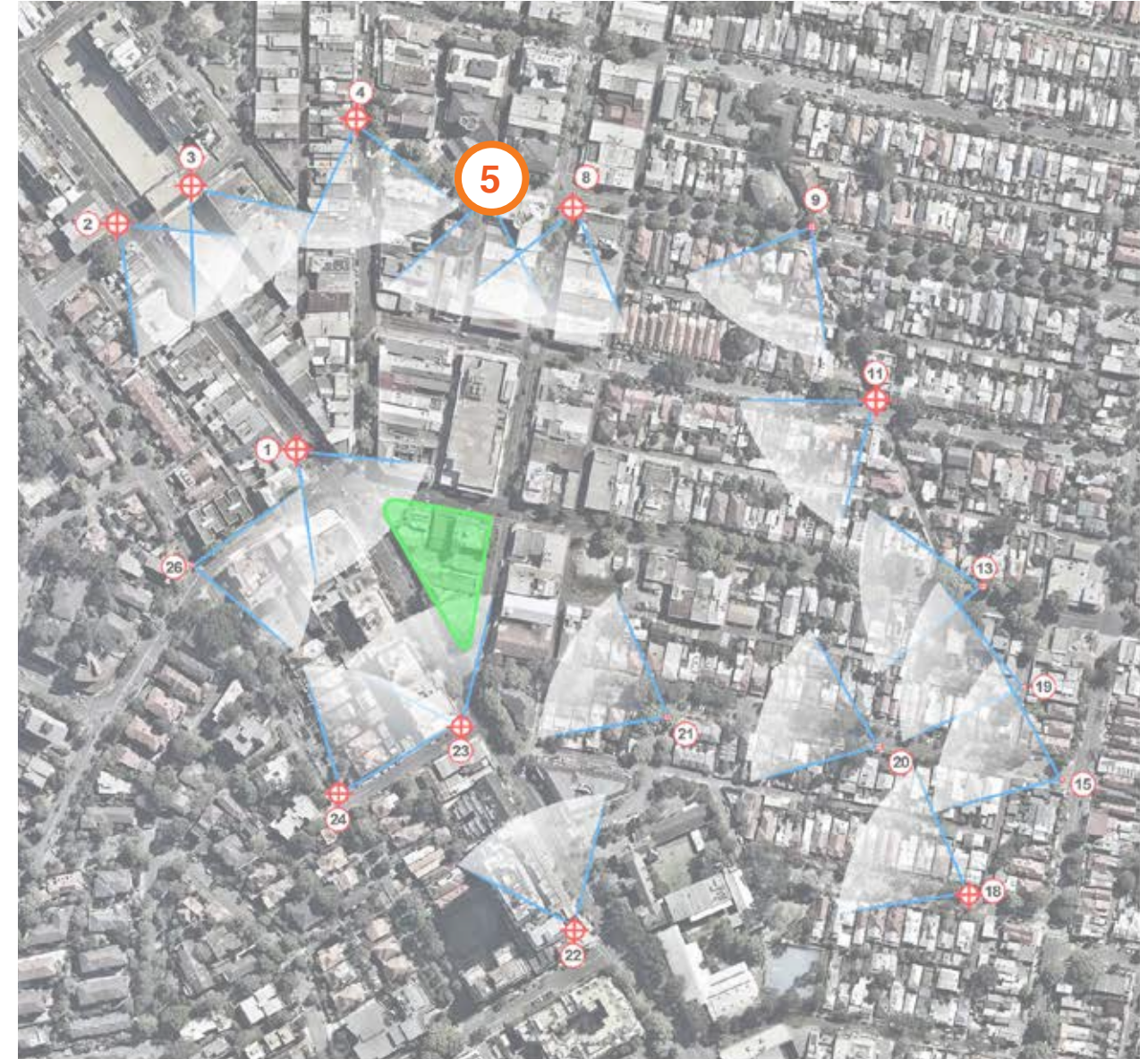
Analysis of Visual Impact: View 5

This is a dynamic, public viewpoint, on a rear access lane, being Willoughby Lane. The view looks south west towards the subject site, with a significant view of the upper levels of the new proposal, but with almost all of the podium level obscured by foreground buildings, particularly those located at the north west of the Five Ways junction.

This is a relatively utilitarian area, mostly for vehicular access and deliveries.

The visual impact, whilst significant, causes no material view loss, only loss of sky view.

The building effectively terminates the vista visually, which is largely in keeping with the role of 'sign-posting' of its central location.



Location & View Map

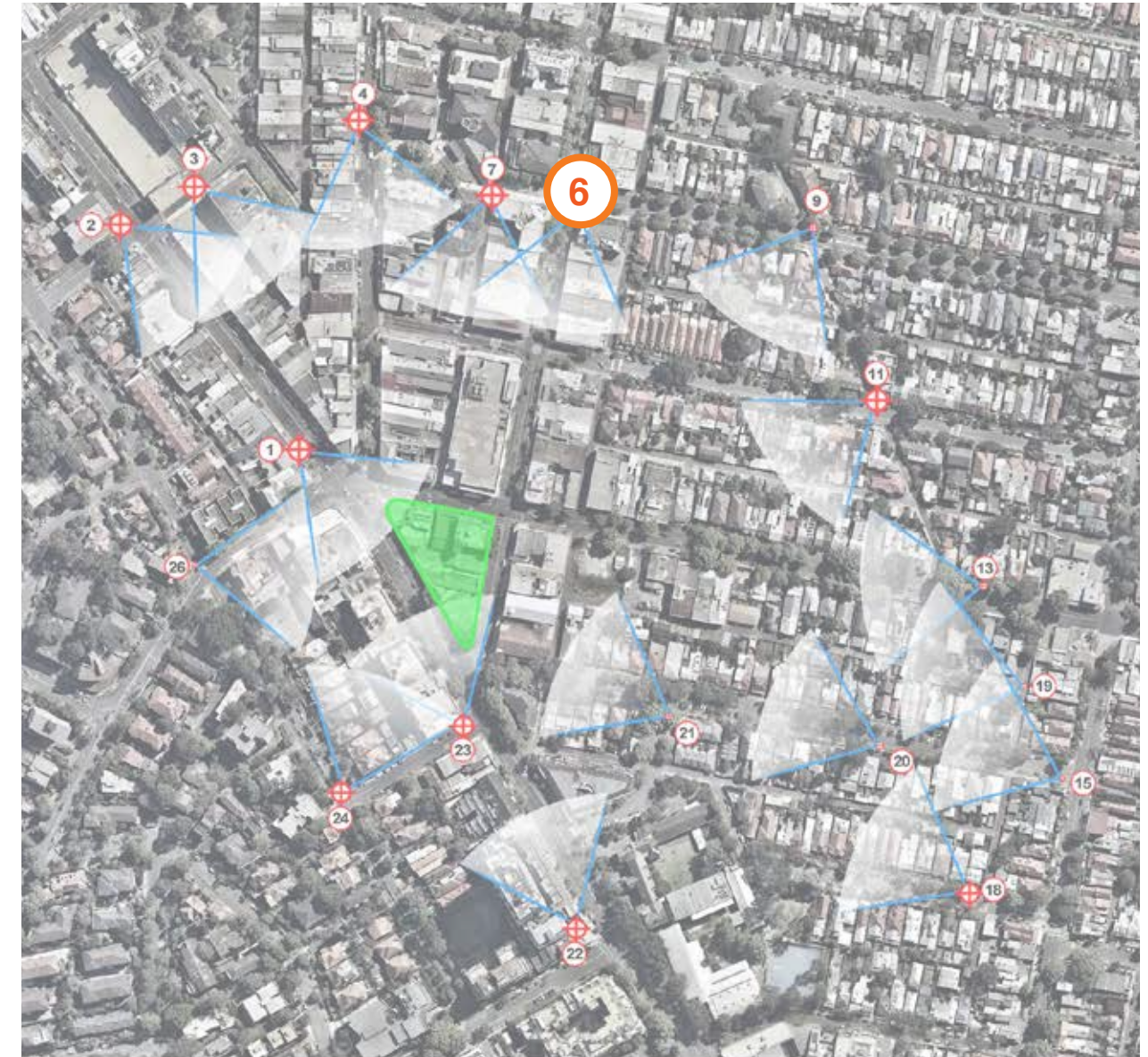


Photomontage of Building Extents

Analysis of Visual Impact: View 6

This is a dynamic, public viewpoint, on a main vehicular route and shopping street of Crows Nest, being Alexander Street, which approaches the Five Ways junction from the north. The view looks south west towards the subject site, with a very small partial view of the upper levels of the new proposal, but with almost all of the proposed built form being obscured by foreground buildings and mature trees along Alexander Street.

The nature and spacing of the trees will facilitate small glimpses of the proposal as the observer approached the Five Ways junction and subject site. These glimpses reinforce the secondary role of the upper towers of the proposal – to indicate the Five Ways junction location and the hub of Crows Nest which, over time will become the centre of new development.



Location & View Map

Seasonal variations in the landscape will permit greater visibility of the proposed buildings over time. Alexander Street, although housing retail uses, is not as pedestrian focused as Willoughby Road and the views will more likely be experienced in a dynamic manner, either vehicular, or walking.



Note: the proposal is obscured by foreground elements in this view

Photomontage of Building Extents

Analysis of Visual Impact: View 7

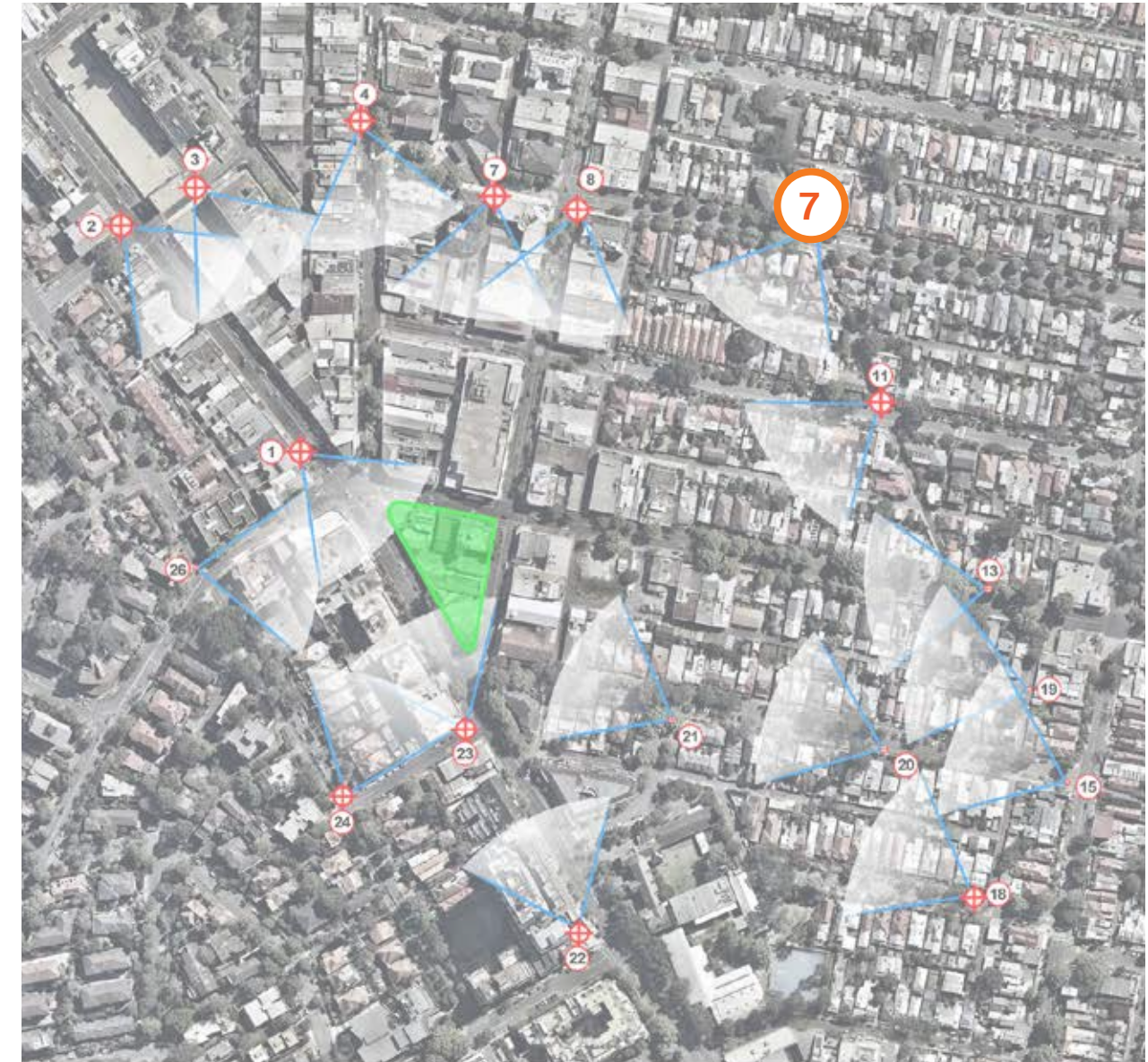
This is a dynamic, public viewpoint, on a main vehicular street of Crows Nest, being Alexander Street which approaches the Five Ways junction from the east. This area is almost entirely residential, consisting of various Federation style houses of 1- and 2-storey construction, alongside small scale residential apartments up to 3-storeys.

These streets are generally lined on both sides with mature, well maintained trees which serve to break up the visual

lines of the residential houses and also of the proposed tower structures in the distance.

Despite its elevation, the proposal is not visible from this location behind the high, raked roofs of the houses on the southern side of Ernest Street.

As in previous views, the glimpses of the proposal between trees and houses serves to act as a 'gateway element' for



Location & View Map

the suburb's commercial centre and also the starting point for future growth and expansion.



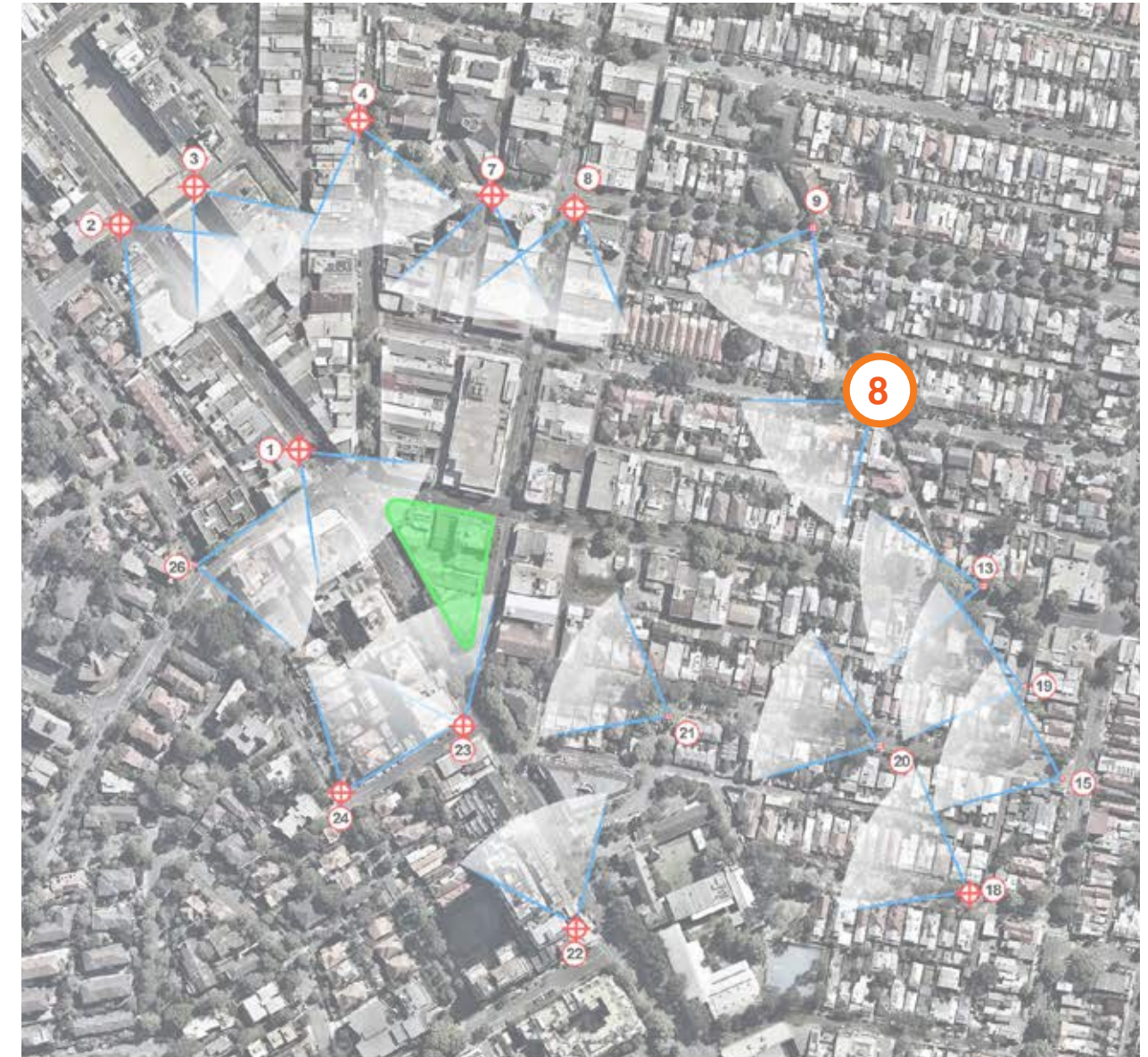
Photomontage of Building Extents

Analysis of Visual Impact: View 8

This is a dynamic, public viewpoint, on a main vehicular and residential street of Crows Nest, being Alexander Street, which approaches the Five Ways junction from the east. This area is almost entirely residential, consisting of various Federation style houses of 1- and 2-storey construction, alongside small scale residential apartments of up to 3-storeys and modern house interventions.

This street, although well planted with trees, does not have the visual screening of larger, higher tree canopies, as are observed on many of the adjoining residential streets. As a result of this, the proposal is significantly visible above the single storey house roof lines, between the observer and the subject site.

The upper levels of the proposal are visible, while the podium is entirely obscured by the foreground elements.



Location & View Map

The tower is visible in the distance but does not dominate the view from the street.

As a result of its raised position, there is no material view loss, only a loss of sky view in the distance.



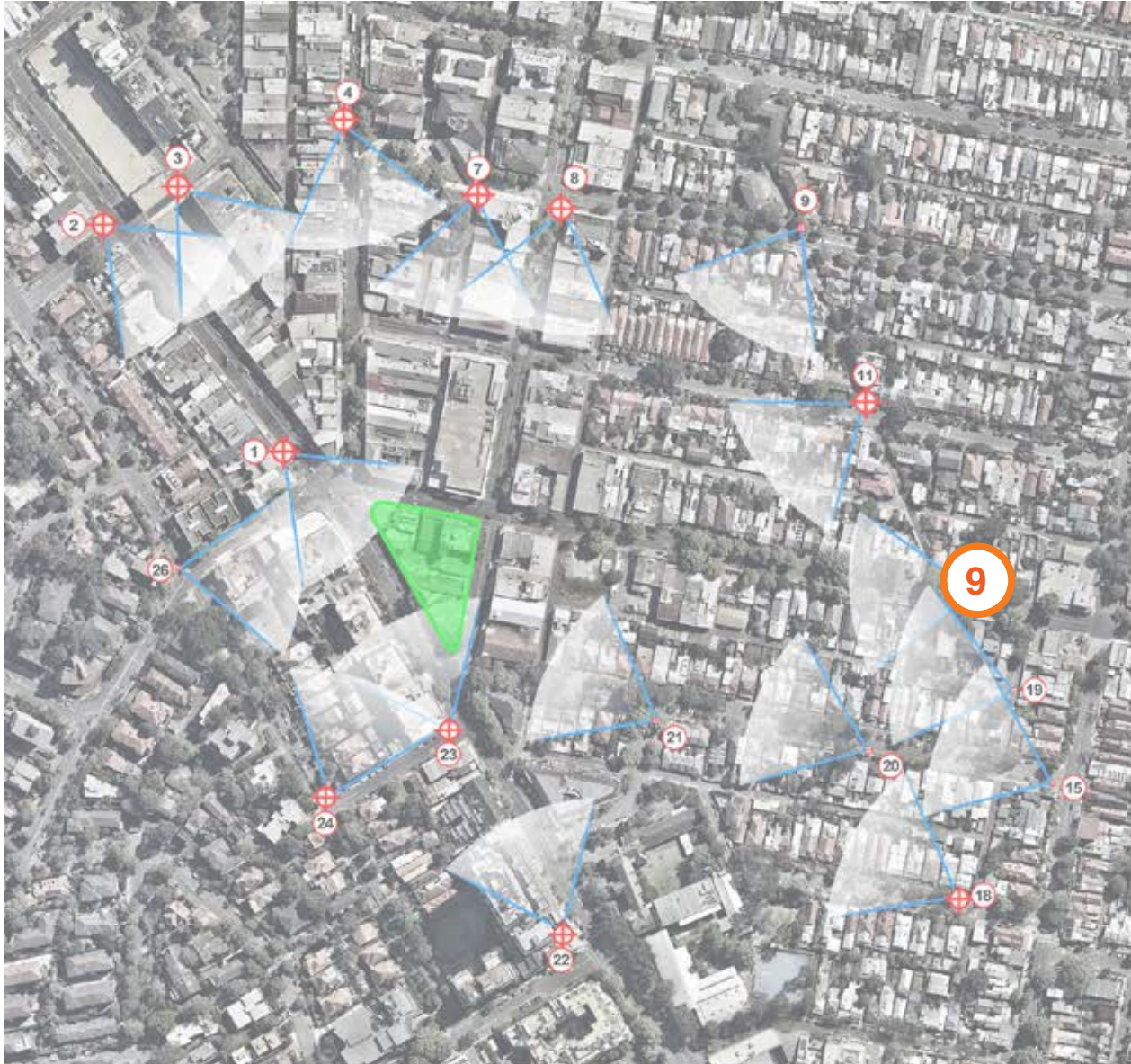
Note: the proposal is obscured by foreground elements in this view

Photomontage of Building Extents

Analysis of Visual Impact: View 9

This is a dynamic, public viewpoint, on a main vehicular street of Crows Nest, being Falcon Street, which approaches the Five Ways junction from the east. This area is almost entirely residential, interspersed with a small number of commercial and retail conversions. The street consists of various Federation style houses of 1- and 2-storey construction, alongside small scale residential apartments up to 3-storeys and various modern interventions.

Falcon Street is lined on both sides with mature, well-maintained trees which serve to break up the visual lines of the residential houses and also of the proposed tower structures in the distance. Despite its raised elevation, the proposal is only partially visible at its upper levels from this location behind the large trees on the street, towards the west.



Location & View Map

As in previous views, the glimpses of the proposal between trees and houses serves to act as a 'gateway element' for the suburb's commercial centre and also the starting point for future growth and expansion.

None of the lower podium levels are visible from this location and, as in previous views, the elevated site position ensures there are no material view losses incurred.



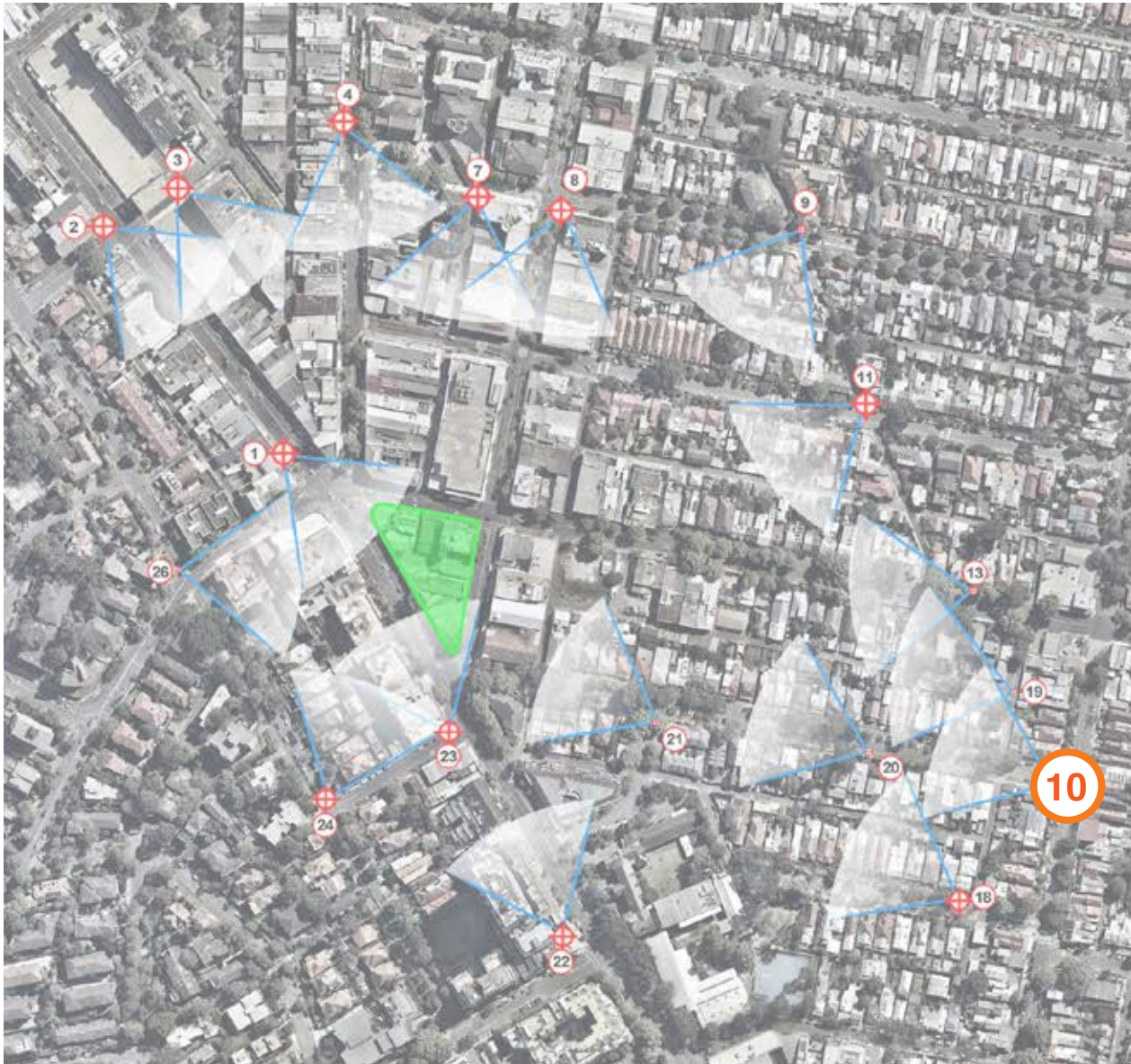
Note: the proposal is obscured by foreground elements in this view

Photomontage of Building Extents

Analysis of Visual Impact: View 10

This is a dynamic, public viewpoint, at the junction of 2 residential streets in Crows Nest, being Hayberry Street and West Street. Hayberry Street approaches the Five Ways junction from the east. This area is almost entirely residential, interspersed with a small number of commercial and retail conversions. The street consists of various Federation style houses of 1- and 2-storey construction, alongside small scale residential apartments up to 3-storeys and various modern interventions.

Hayberry Street is lined on both sides with mature, well maintained trees which serve to break up the visual lines of the residential houses and also of the proposed tower in the distance. Despite its elevation, the proposal is only partially visible from this location through gaps in the large trees on the street, west of the image location.



Location & View Map

As in previous views, the glimpses of the proposal between trees and houses serves to act as a 'gateway element' for the suburb's commercial centre and also the starting point for future growth and expansion.

None of the lower podium levels are visible from this location and, as in previous views, the elevated site position ensures there are no material view losses incurred.

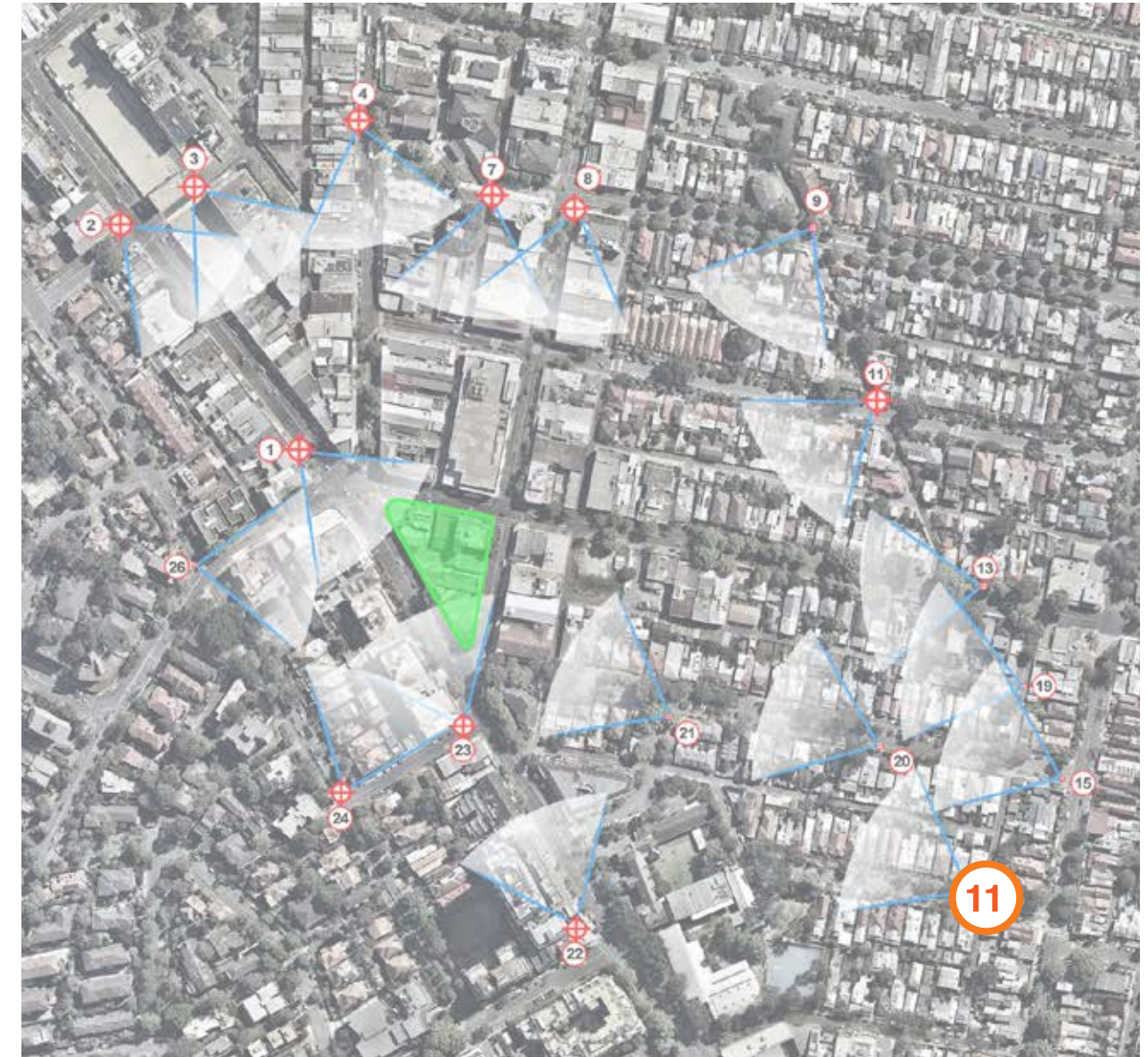


Photomontage of Building Extents

Analysis of Visual Impact: View 11

This is a dynamic, public viewpoint, at the junction of 2 residential streets in Crows Nest, being Myrtle Street and Eden Street. Myrtle Street connects to Pacific Highway at its eastern end. This area is almost entirely residential, interspersed with a small number of commercial and retail conversions. The street consists of various Federation style houses of 1- and 2-storey construction, alongside small scale residential apartments up to 3-storeys and various modern interventions.

Myrtle Street is lined on both sides with mature, well maintained trees, which serve to break up the visual lines of the residential houses and also of the proposed tower structures in the distance. Despite its elevation, the proposal is not visible from this location behind roof line of Nos. 42-44 Myrtle Street, towards the north west.



Location & View Map

As in previous views, the glimpses of the proposal between trees and houses serves to act as a 'gateway element' for the suburb's commercial centre and also the starting point for future growth and expansion.

None of the lower podium levels are visible from this location and, as in previous views, the elevated site position ensures there are no material view losses incurred.



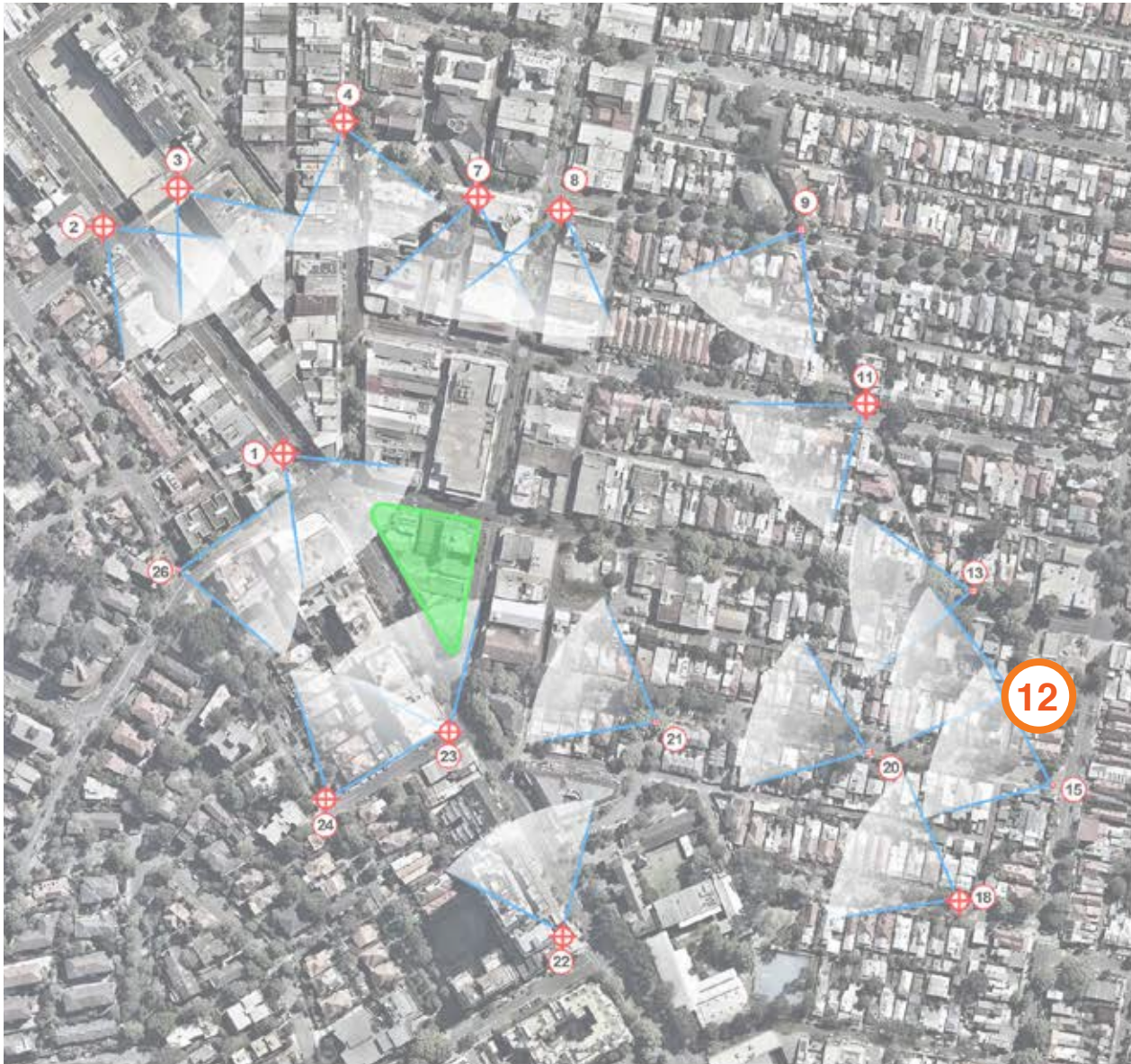
Note: the proposal is obscured by foreground elements in this view

Photomontage of Building Extents

Analysis of Visual Impact: View 12

This is a dynamic, public viewpoint, at the junction of two residential streets in Crows Nest, being Hayberry Lane and Bernard Lane. Hayberry Lane approaches the Five Ways junction from the east. This lane is predominantly for vehicular access to the garages at the rear of houses on Falcon Street and Hayberry Street. The character of the area is almost entirely residential, interspersed with a small number of commercial and retail conversions.

There are a mixture of random garages, mixed with residential conversions and 3- to 4-storey apartments. Towards the western end of Hayberry Lane, a number of larger, mature trees are located in rear residential gardens, alongside the edge of the road. These conjoin at various locations to effectively obscure large parts of the upper elements of the new proposal. The podium levels are entirely obscured by the buildings surrounding the site



Location & View Map

As in previous views, the glimpses of the proposal between trees and houses serves to act as a 'gateway element' for the suburb's commercial centre and also the starting point for future growth and expansion.

The elevated site position ensures there are no material view losses incurred, only partial sky view losses.



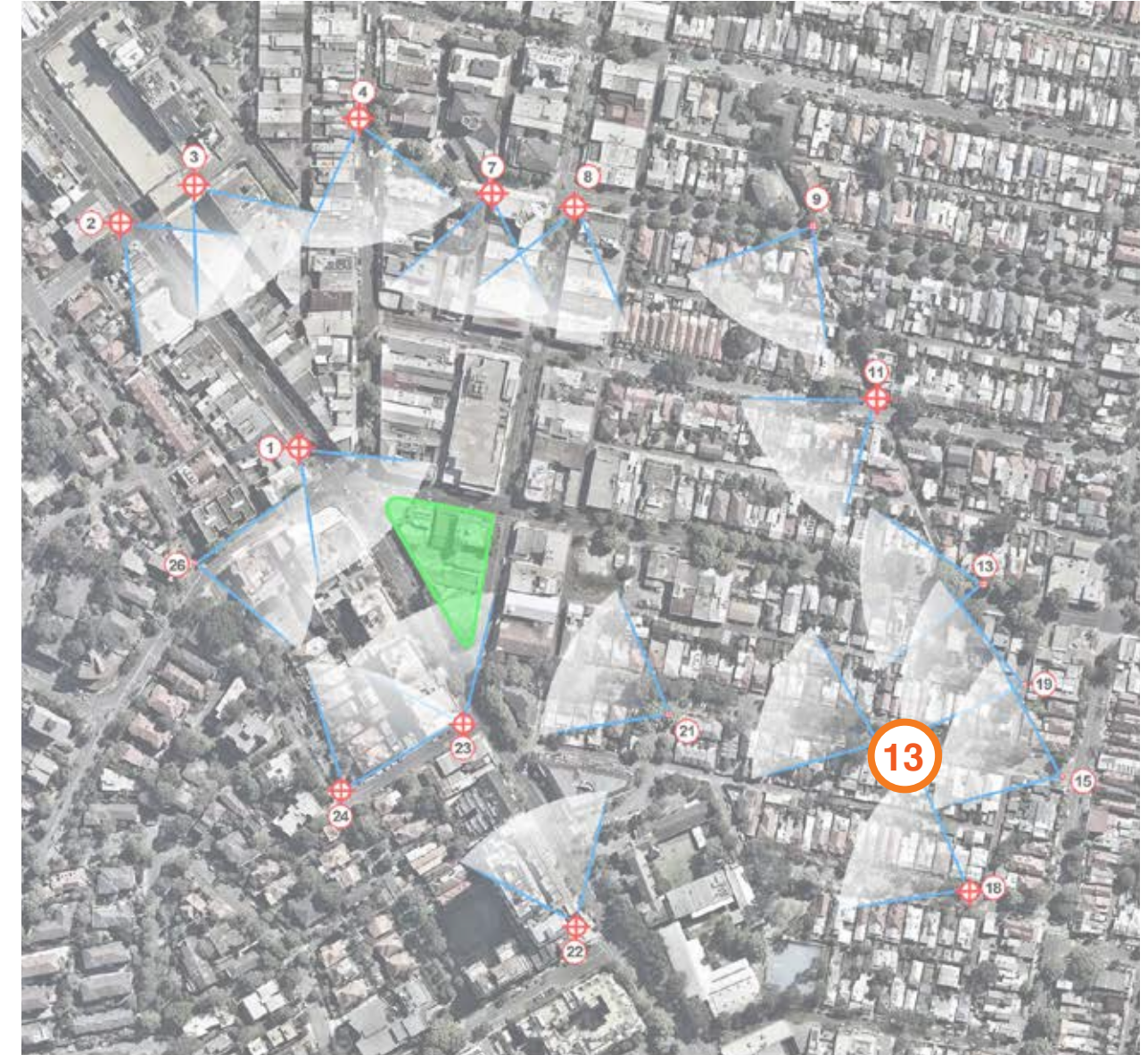
Photomontage of Building Extents

Analysis of Visual Impact: View 13

This is a dynamic, public viewpoint, approximately at the midpoint of a wide, established residential street, being Hayberry Street. This street approaches the Five Ways junction from the east. The area is almost entirely residential, interspersed with a small number of commercial and retail conversions. The street consists of various Federation style houses of 1- and 2-storey construction, alongside small scale residential apartments up to 3-storeys and various modern interventions.

Hayberry Street is lined on both sides with mature, well maintained trees, which serve to break up the visual lines of the residential houses and also of the proposed tower structures in the distance. Despite its elevation, the proposal is not visible from this location.

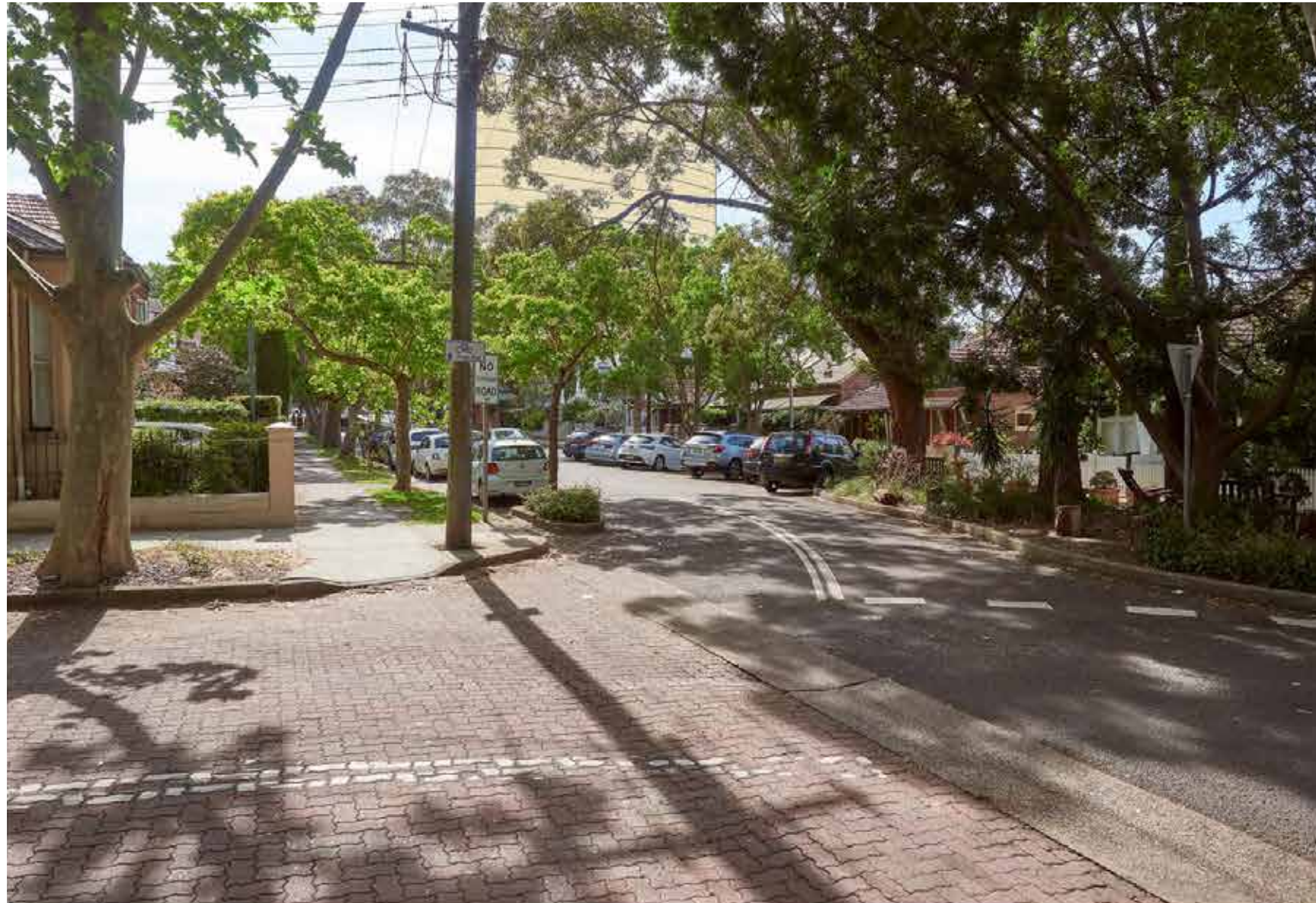
As in previous views, the glimpses of the proposal between trees and houses serves to act as a 'gateway element' for the suburb's commercial centre and also the starting point



Location & View Map

for future growth and expansion.

None of the lower podium levels are visible from this location and, as in previous views, the elevated site position ensures there are no material view losses incurred.



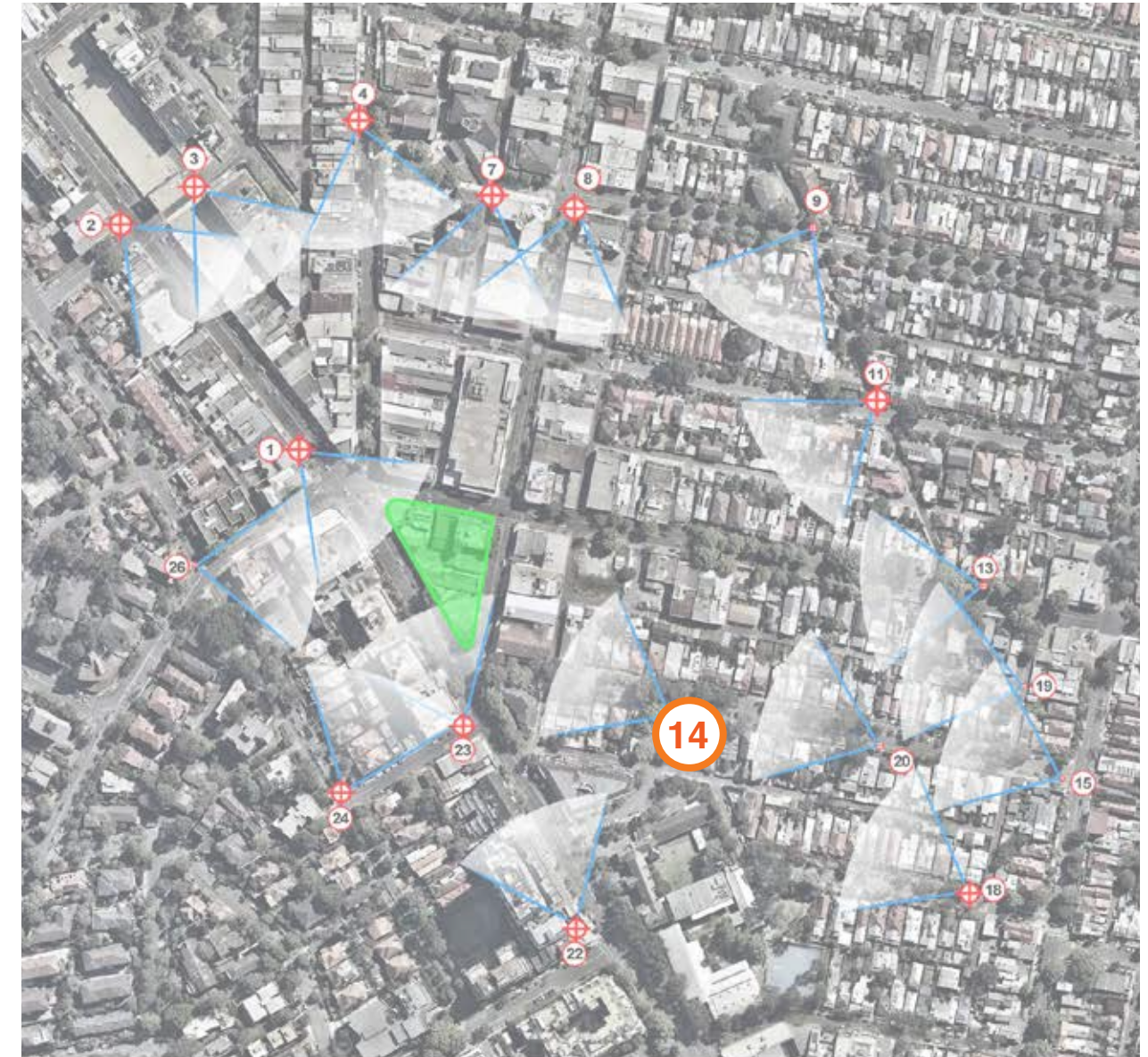
Photomontage of Building Extents

Analysis of Visual Impact: View 14

This is a dynamic, public viewpoint, at the junction of two residential streets in Crows Nest, being Hayberry Street and David Street. Hayberry Street approaches the Five Ways junction from the east. This area is almost entirely residential, interspersed with a small number of commercial and retail conversions. The street consists of various Federation style houses of 1- and 2-storey construction, alongside small scale residential apartments up to 3-storeys and various modern interventions. Beyond the eastern

end of the street the commercial buildings surrounding the subject site terminate the vista.

Hayberry Street is lined on both sides with mature, well maintained trees, which serve to break up the visual lines of the residential houses and also of the proposed tower structures. The mid to upper levels are visible through the trees from this location, with the lower levels being largely obscured by a mixture of mature trees and existing



Location & View Map

buildings. As in previous views, the glimpses of the proposal between trees and houses serves to act as a 'gateway element' for the suburb's commercial centre and also the starting point for future growth and expansion.

None of the lower podium levels are visible from this location and, as in previous views, the elevated site position ensures there are no material view losses incurred.



Photomontage of Building Extents

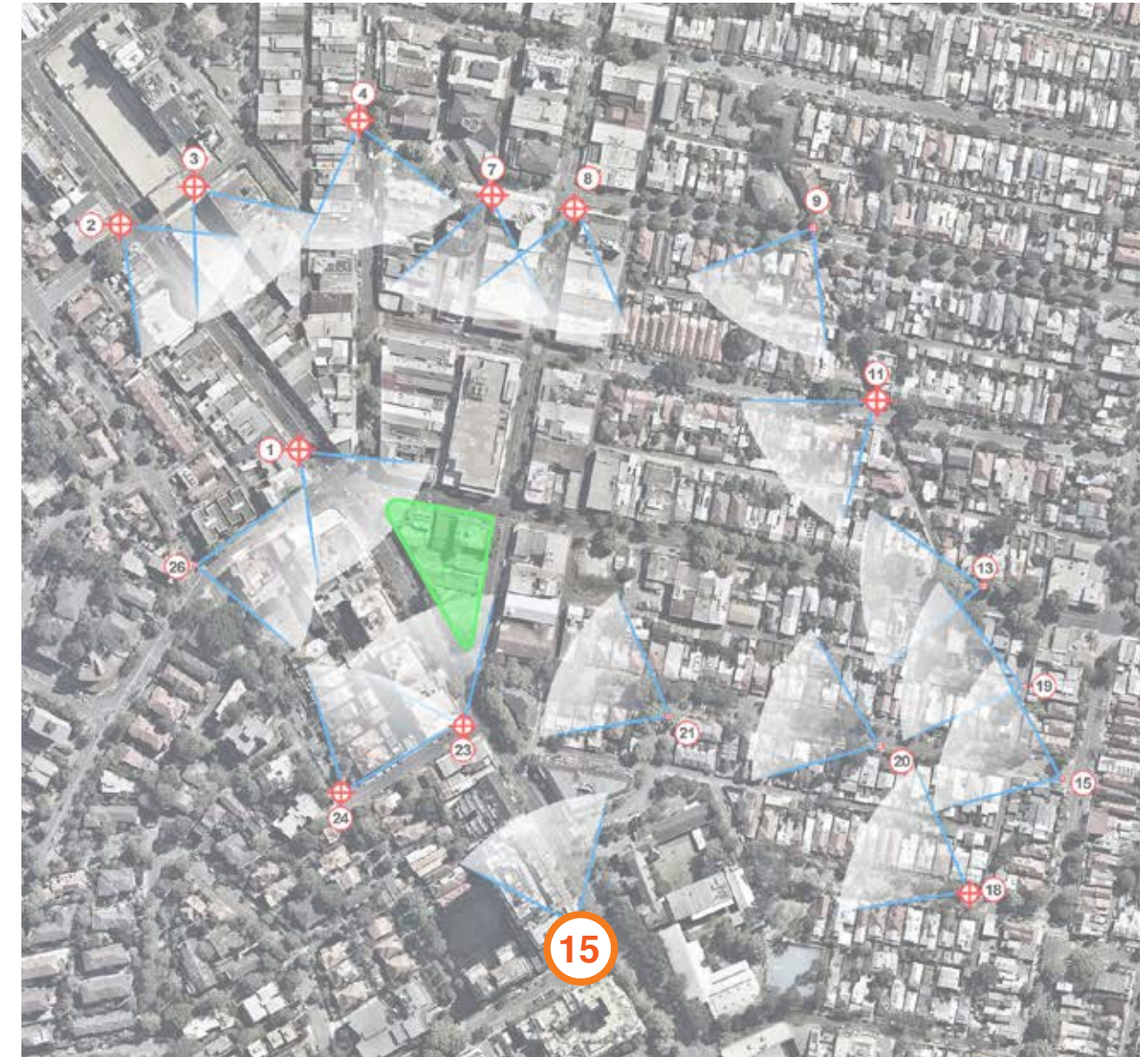
Analysis of Visual Impact: View 15

This is a dynamic, public viewpoint, at the junction of Pacific Highway and Rocklands Road. Pacific Highway is the main traffic thoroughfare approaching Crows Nest and the new proposal's form and location will be very significant in terms of its ability to locate the centre of Crows Nest.

Pacific Highway is lined by large commercial and residential buildings on its western side, with a combination of school and smaller commercial buildings on the east. There are

various mature trees established along the road and also set back, within the ground of the school.

Pacific Highway approached the subject site from the south and from a lower elevation. This makes the new proposal more prominent visually, but ensures that no actual views are lost – the only visual impact being on the sky.



Location & View Map

The Pacific Highway is the main arterial route through the North Shore suburbs, which progressively have been developed into larger commercial centres, such as North Sydney, St Leonards and Chatswood. The proposal seeks to articulate the various suburbs further by defining Crows Nest's location through its form and prominence.

Any visual impact should therefore be assessed in this context of way-finding and identification.



Photomontage of Building Extents

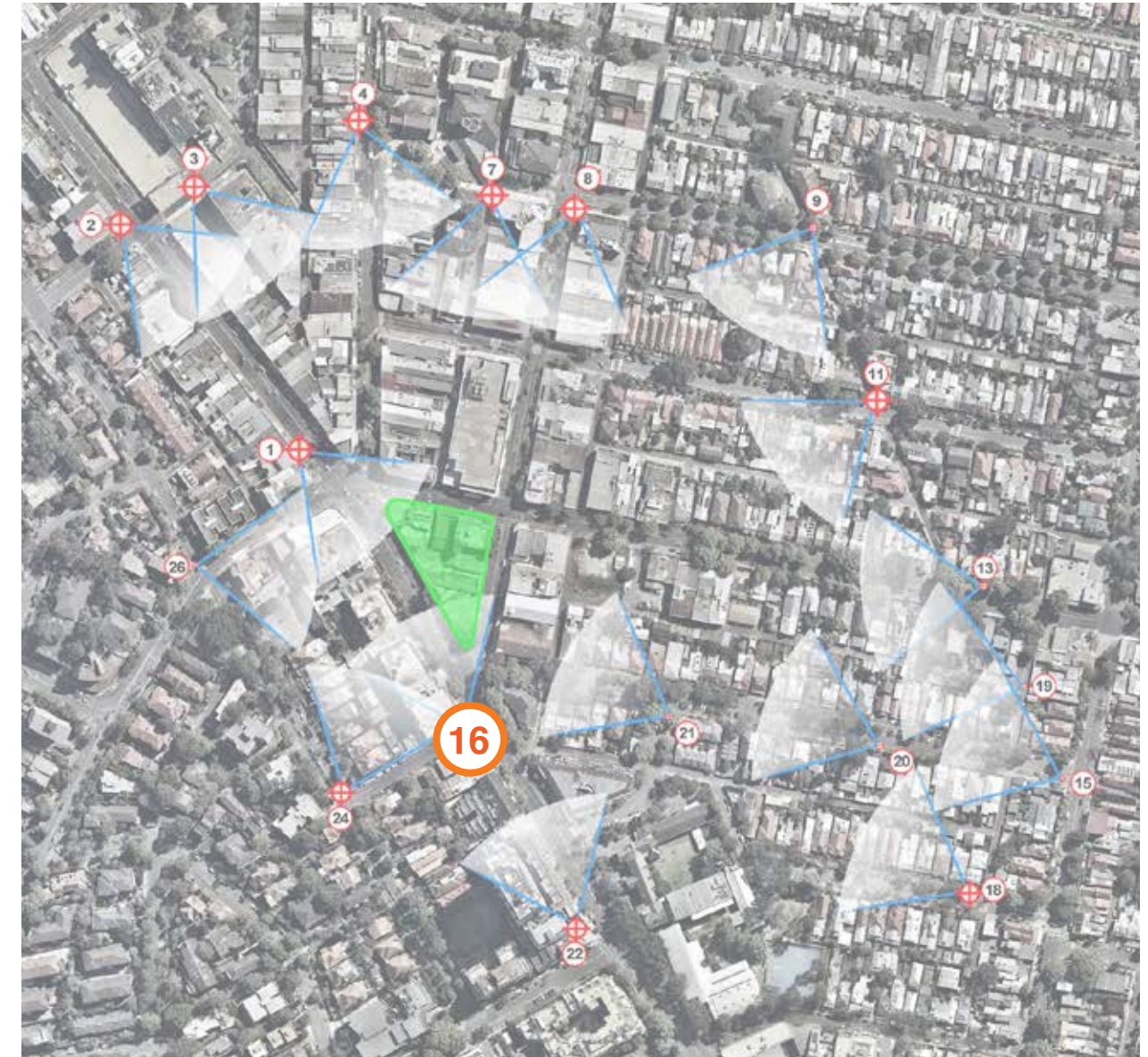
Analysis of Visual Impact: View 16

This is a dynamic, public viewpoint, at the junction of Pacific Highway and Bruce Street. Pacific Highway is the main traffic thoroughfare approaching Crows Nest and the new proposal's form and location will be very significant in terms of its ability to locate the centre of Crows Nest.

From this location, the building is visible almost in its entirety, being obscured only partially by mature trees along the roads. Pacific Highway is lined by large commercial

and residential buildings on its western side, with smaller commercial buildings on the east. There are various mature trees established along the pavements.

Pacific Highway approaches the subject site from the south and from a slightly lower elevation. This makes the new proposal more prominent visually, but ensures that no actual views are lost – the only visual impact being on the sky. The Pacific Highway is the main arterial route through



Location & View Map

the North Shore suburbs, which progressively have been developed into larger commercial centres, such as North Sydney, St Leonards and Chatswood. The proposal seeks to articulate the various suburbs further by defining Crows Nest's location through its form and prominence.

Any visual impact should therefore be assessed in this context of the proposal's purpose of way-finding and identification.



Photomontage of Building Extents

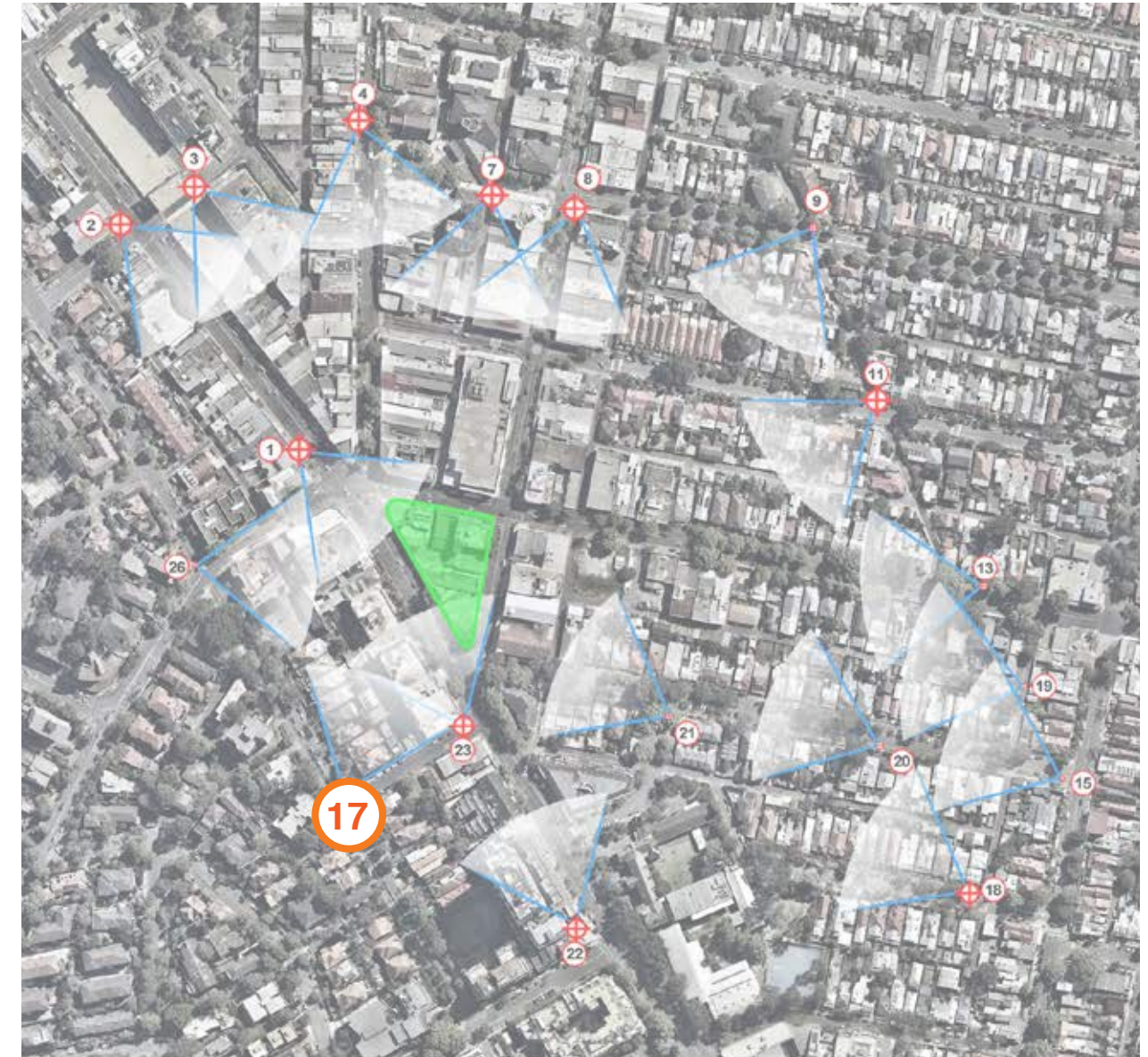
Analysis of Visual Impact: View 17

This is a dynamic, public viewpoint at the junction of Sinclair Street and Bruce Street. The landform drops steeply to the west from Pacific Highway creating a greater elevation of the new proposal from this location.

The buildings to the west of Pacific Highway are 6- to 8-storey residential and commercial buildings which already help to define the area as the centre of the suburb in terms of scale and interaction. The new proposal rises above the

roof lines of the residential properties on Sinclair Street and obscure sky views only.

From this location, the low to mid levels are not visible, being obscured by the existing buildings and street trees. The top levels are visible over the existing roof lines.



Location & View Map



Photomontage of Building Extents

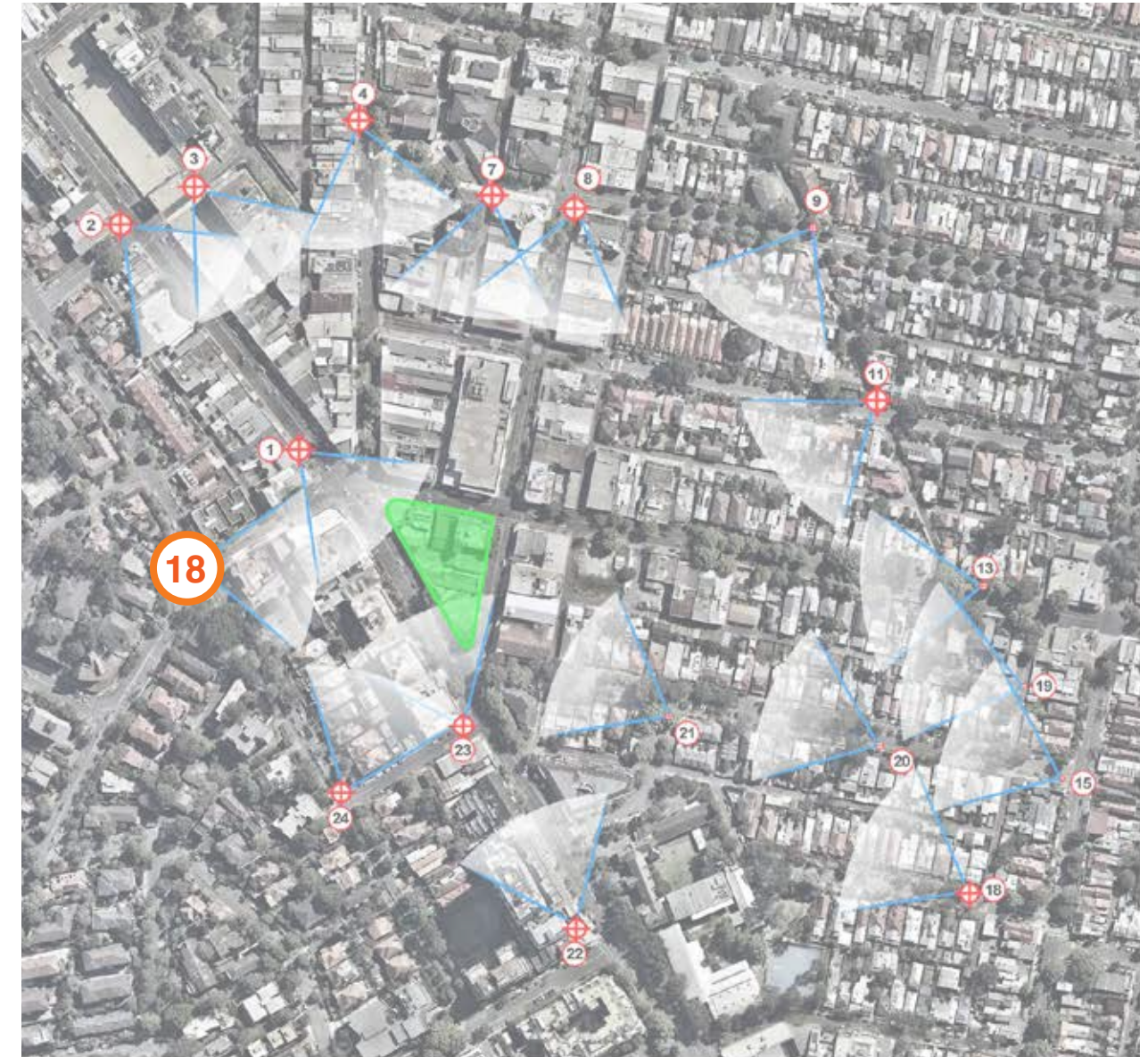
Analysis of Visual Impact: View 18

This is a dynamic, public viewpoint along Shirley Road, which is one of the main arterial roads approaching the Five Ways Junction site from the west. The landform drops steeply to the west from Pacific Highway, creating a greater elevation of the new proposal from this location.

The buildings to the west of Pacific Highway are 6 to 8 storey residential and commercial buildings, which already help to define the area as the centre of the suburb in terms

of scale and interaction. The new proposal rises above the roof lines of the institutional properties on Shirley Road and obscure sky views only.

From this location, the upper levels of the building are visible in part while the mid to lower levels are obscured by the 3-storey brick buildings in the foreground.



Location & View Map

12 Shadow Analysis

In order to assess the effects of overshadowing in the context, 5 principles were generated arising from the 2036 plan.

1

No additional overshadowing of **nominated public open spaces** between **10am - 3pm** (Winter solstice)

2

No additional overshadowing of **nominated streetscapes** between **11:30am - 2:30pm** (Winter solstice)

3

Maintain Solar Access **Residential Areas** inside boundary (for at least **2 hours**)

4

Maintain Solar Access to **Residential Areas** outside boundary (for the whole time between **9am and 3pm**)

5

Maintain Solar Access to **Heritage Conservation Areas** inside boundary (for at least **3 hours**)





1

No additional overshadowing of nominated public open spaces between 10am - 3pm (Winter solstice)



Complies

-  21st of June Shadow (9am-3pm)
-  Nominated Public Open Spaces





2

No additional overshadowing of **nominated streetscapes** between 11:30am - 2:30pm (Winter solstice)



Complies

-  21st of June Shadow (9am-3pm)
-  Nominated Streetscapes

No Additional Shadow To Nominated Streetscapes

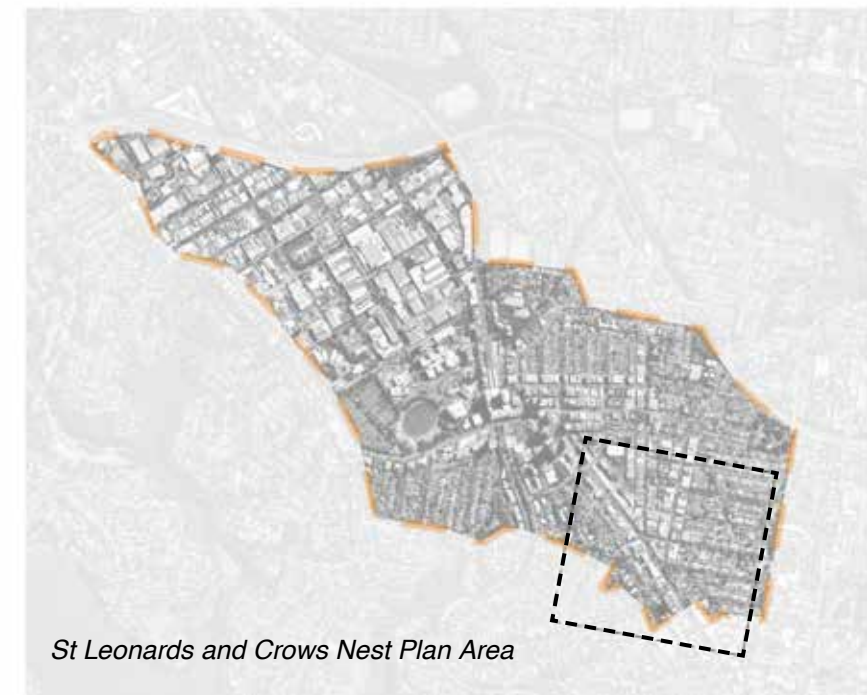


3

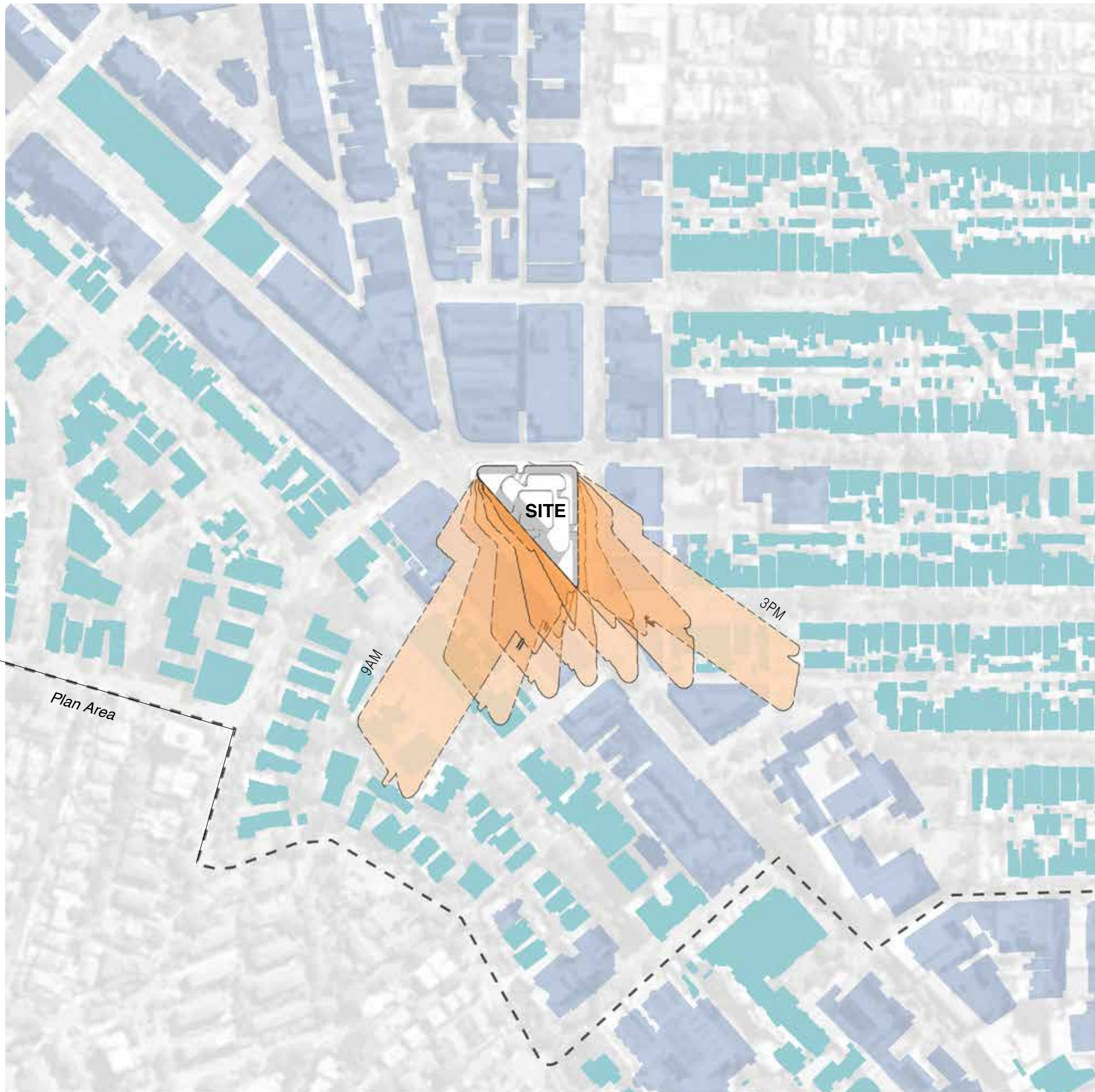
Maintain Solar Access to Residential Areas outside boundary (for the whole time between 9am and 3pm)



Complies



■ = 21st of June Shadow (9am-3pm)







4

Maintain Solar Access to **Residential Areas** inside the Plan Area boundary (for at least **2 hours**)



Complies

-  = 21st of June Shadow (9am-3pm)
-  = Residential: Solar Amenity reduced Below 3hrs by Proposed Development
-  = Residential: Solar Amenity NOT reduced Below 3hrs by Proposed Development
-  = Commercial



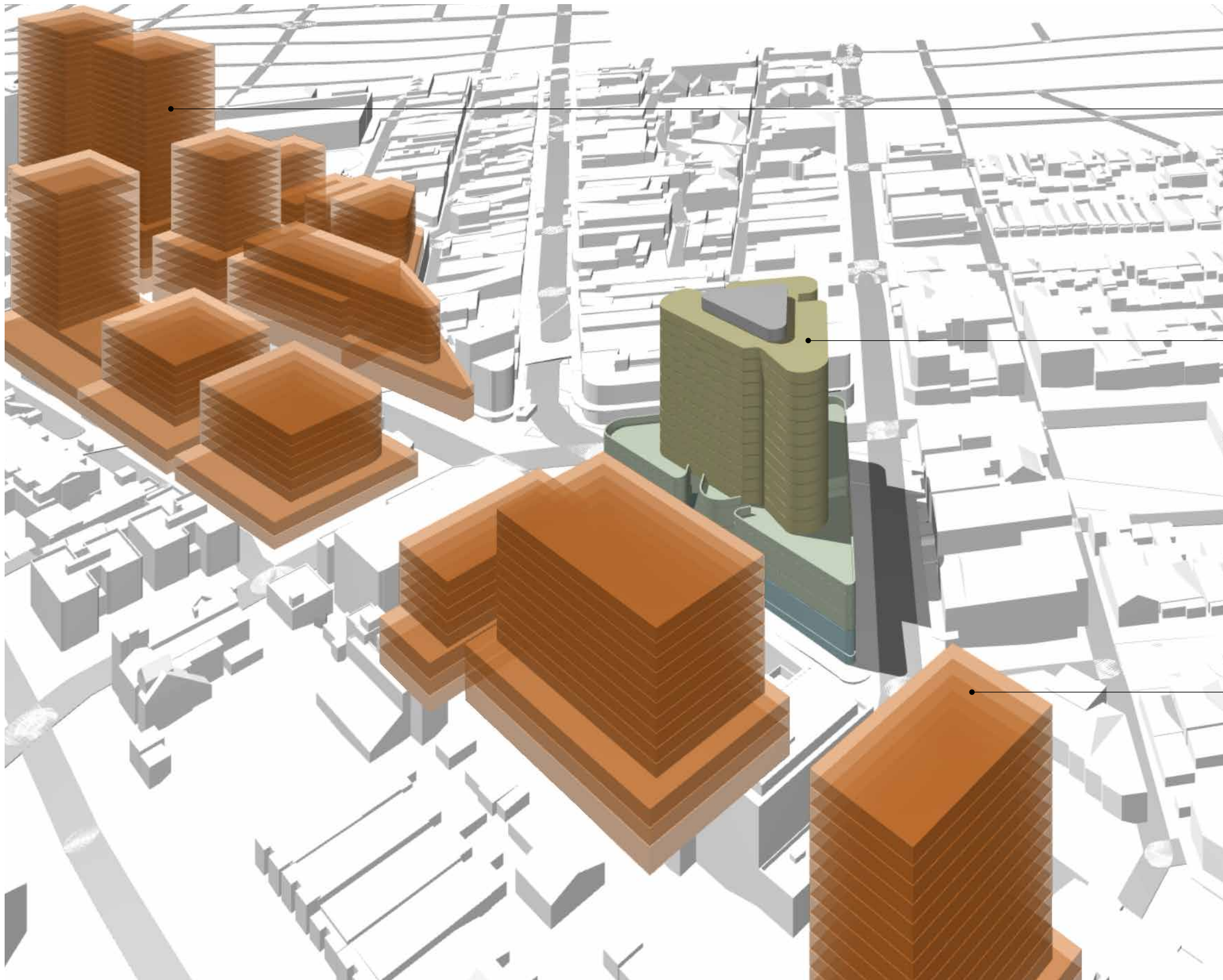
5

Maintain Solar Access to **Heritage Conservation Areas** inside boundary (for at least **3 hours**)



Complies

- = 21st of June Shadow (9am-3pm)
- Heritage Conservation Area



Crows Nest Metro OSD

Proposed Development

2036 Plan Future Building Heights

- 2036 Plan - Future Building Massing
- Proposed - Residential
- Proposed - Commercial
- Proposed - Retail





Shadow Analysis

2036 Plan Future Building Heights



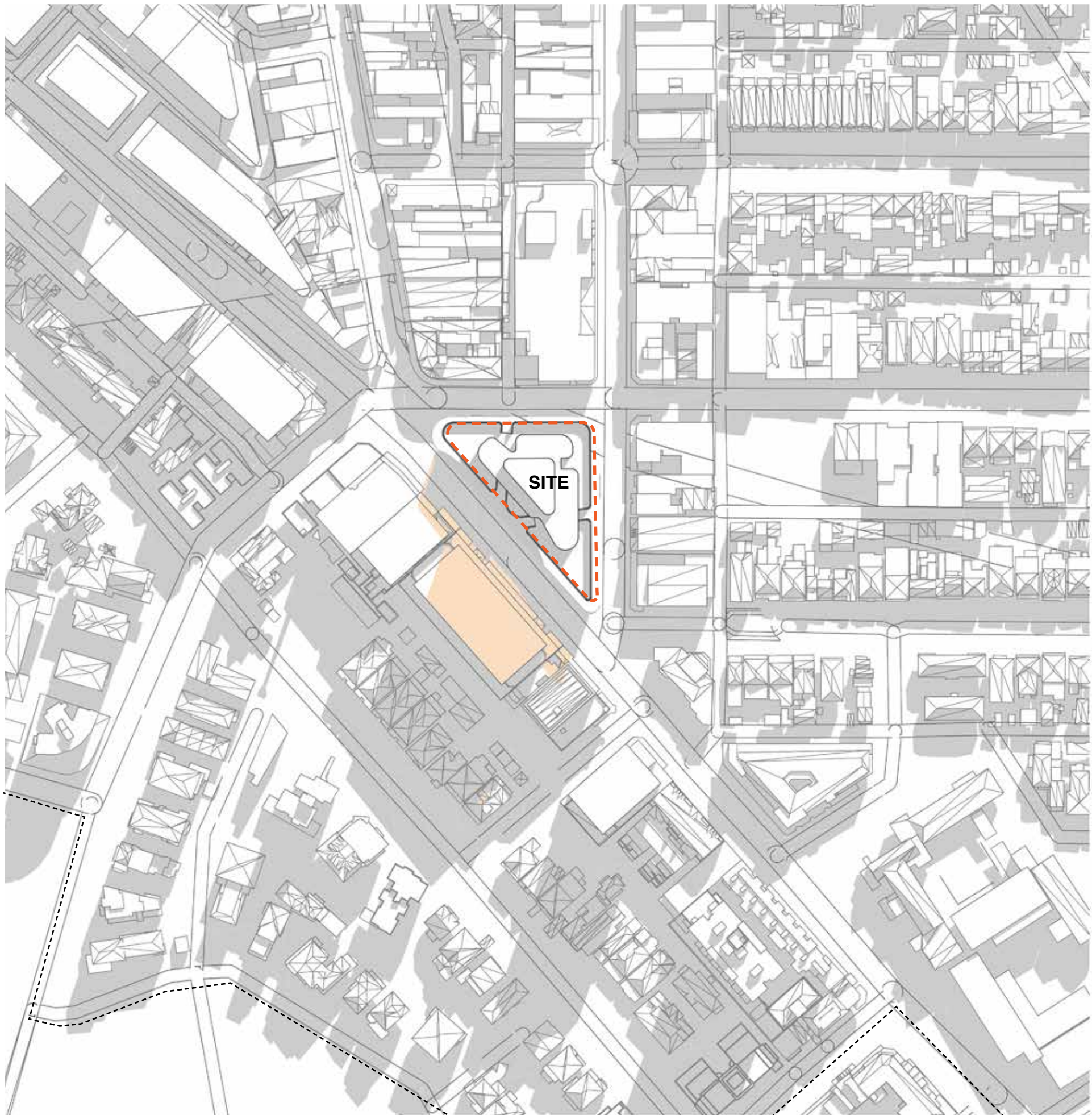
- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal



-  Site
-  2036 Plan Area
-  Existing Shadows
-  Additional Shadow from Proposal



- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal



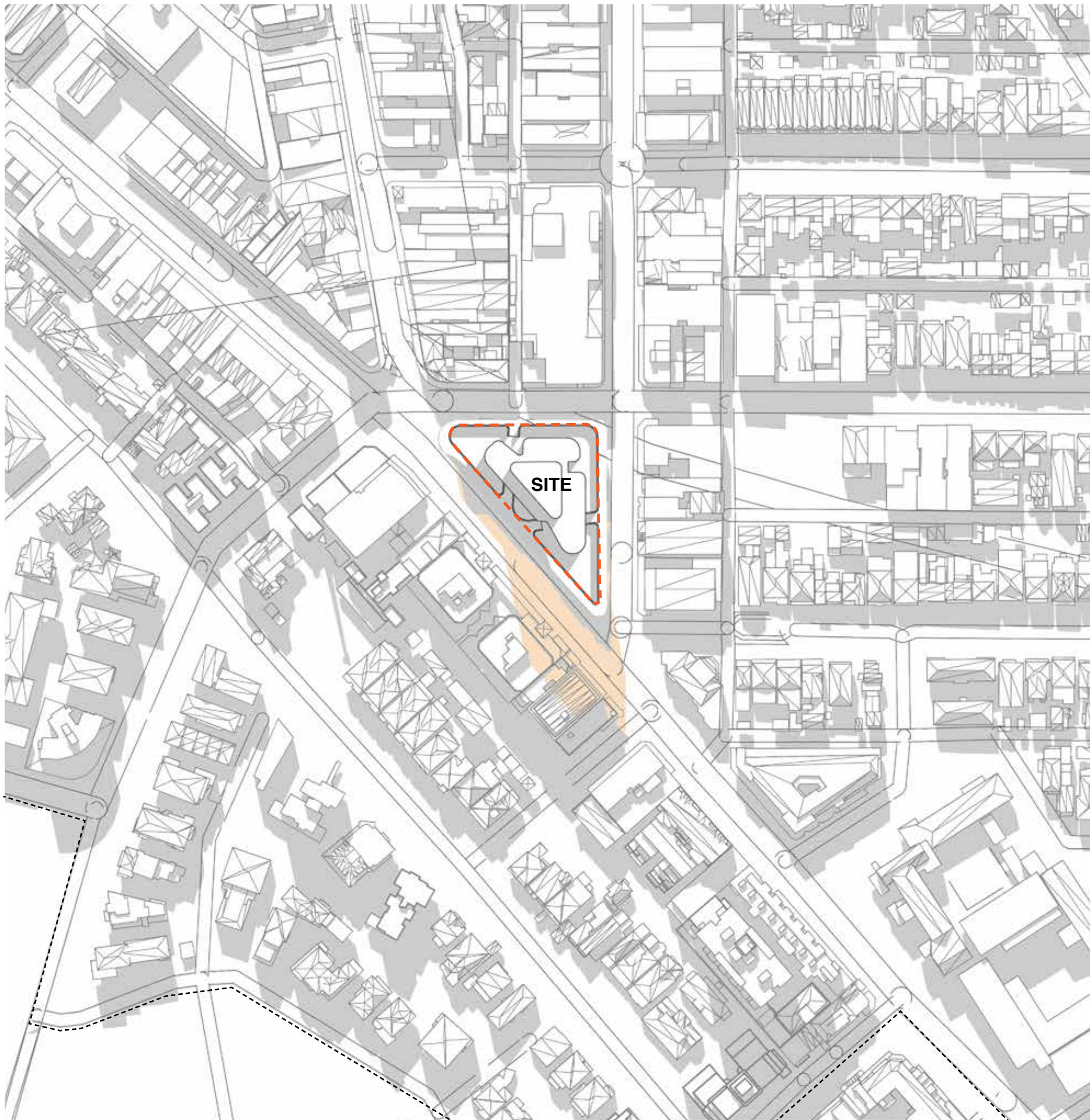
- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal



- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal



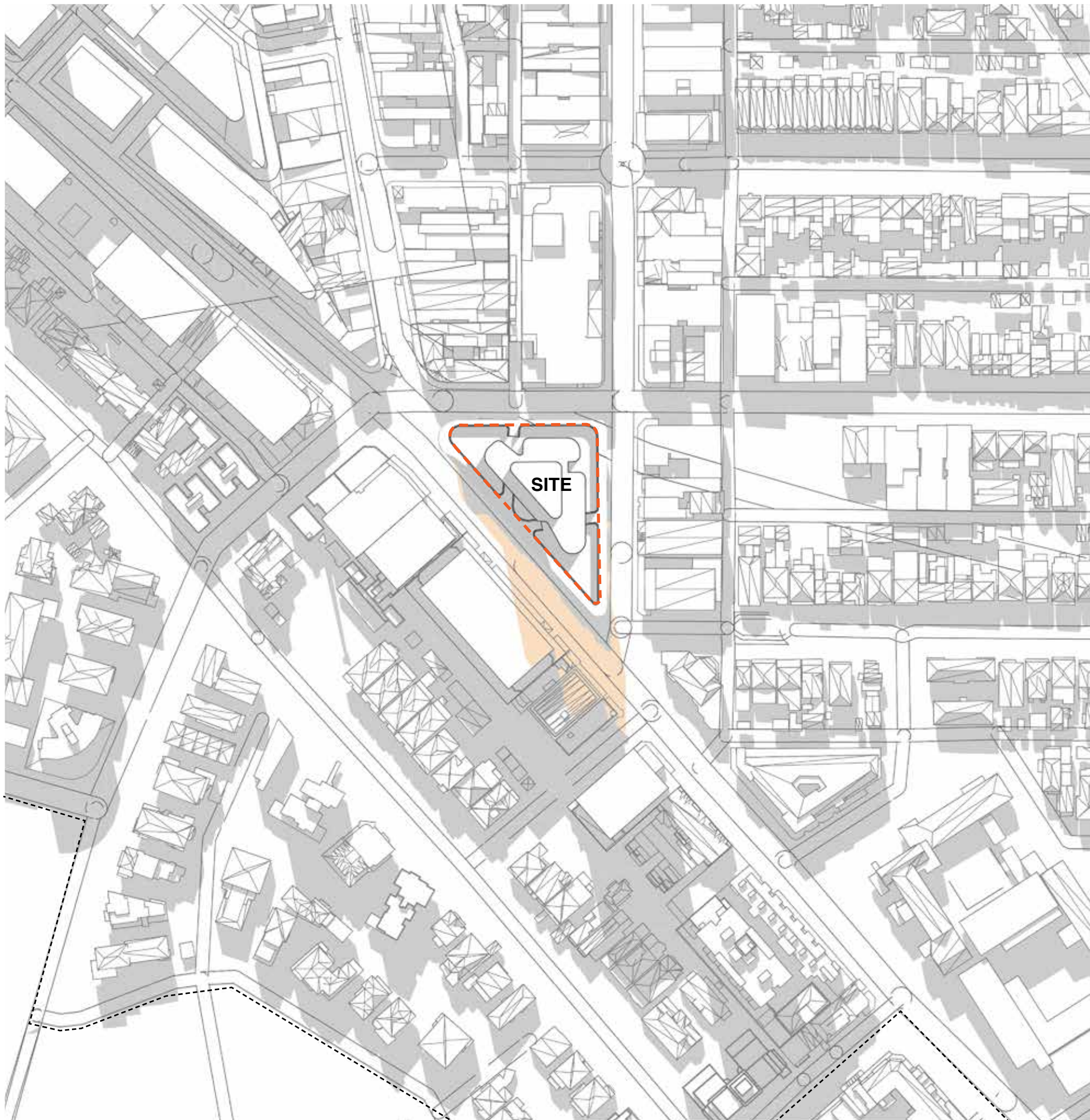
- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal



- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal

Shadow Analysis

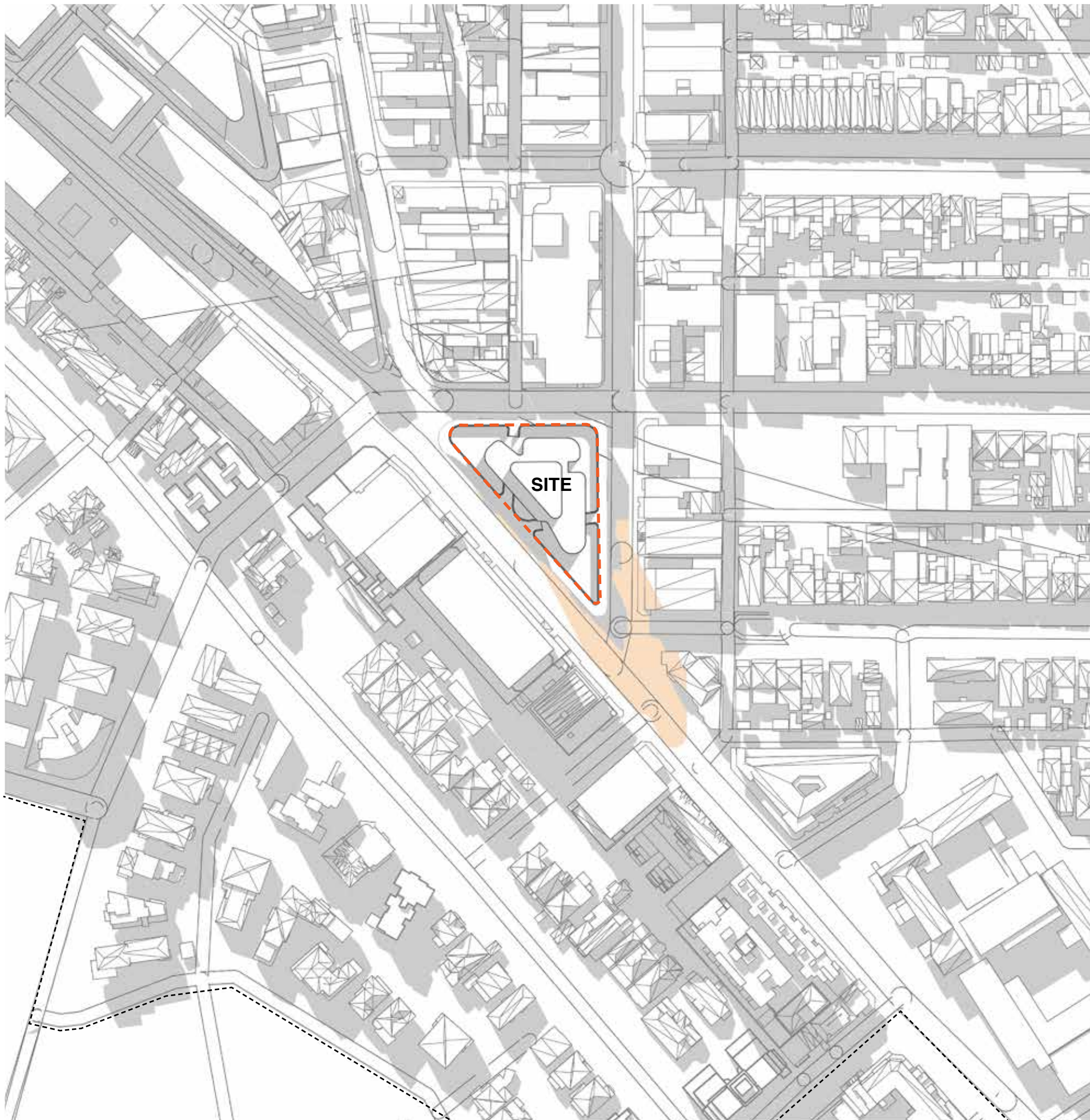
12:00PM Shadow (21st June) - Existing & Proposed



- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal



- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal



- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal



- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal



- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal



- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal



- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal

13 The Vision

The Vision

Access and integration to green rooftops is an important goal for the development. The design significantly increases green coverage and communal planting to encourage community integration and sustainable living.

It also provides a green buffer from the roads and creates places of interest for a variety of uses.



The Vision

The public domain enhances the vibrant community by the use of public walks used as "outdoor rooms", abundant green areas, local public art, wide footpaths for layered activities, diversity at ground, places to stop and rest and an 18 hour city strategy for activation.



The Vision

The new public walks reinforce connections to the existing street-grid and suggest new connections to create additional permeability for the neighbourhood. The proposal is an extension of the Crows Nest Village connecting through to retail and commercial areas.



The Vision

Day-time Alexander Street Visualisation

14
Conclusion

Five Ways Conclusion

As demonstrated in this report, the urban form proposed for the Five Ways Crows Nest site achieves the vision, area-wide design principles, and design criteria as outlined in the St Leonards and Crows Nest 2036 Plan. In particular:

- The project delivers significant new commercial floorspace in large flexible floorplates that will contribute to the regeneration of employment space in the district. Commercial tenancy space is designed to be flexibility and potentially suitable for the workplaces connected to Crows Nest Village and also for nearby education and health facilities such as the Mater Hospital.
- The amalgamation of the 19 allotments that currently make up the Five Ways site will enable this currently 'lost space' to be transformed as a vibrant and welcoming gateway to the Crows Nest Village.
- The new ground plane will offer shade, soft landscape, urban furniture and a pedestrian friendly environment which will provide easy and safe connections to the major bus stop on Pacific Highway and to adjacent precincts.
- The ground floor and podium spaces will contain a diverse range of spaces including retail and commercial uses. The mix of shopping and services responds to the needs of the community. The configuration of the retail spaces, new pedestrian links is designed to expand the active and vibrant experience of Crows Nest Village and to provides a catalyst to under performing retail and commercial spaces in the retail High-Streets adjacent to the site.
- The provision of new dwellings within a short walking distance of the \$12.5 billion Crows Nest Metro is responsible planning which helps to create a city where people can live within 30-minutes of their employment.
- The provision of key-working housing contributes to the community demand, Council priorities and ultimately assists local workers who may currently have difficulty accessing private housing.
- The new homes will help satisfy housing demand in the 2027-2036 period and reduce the pressure on less appropriate locations in the LGA.
- The proposal creates a 'gateway element' as anticipated in the 2036 Plan and is the only site capable of supporting a landmark building.



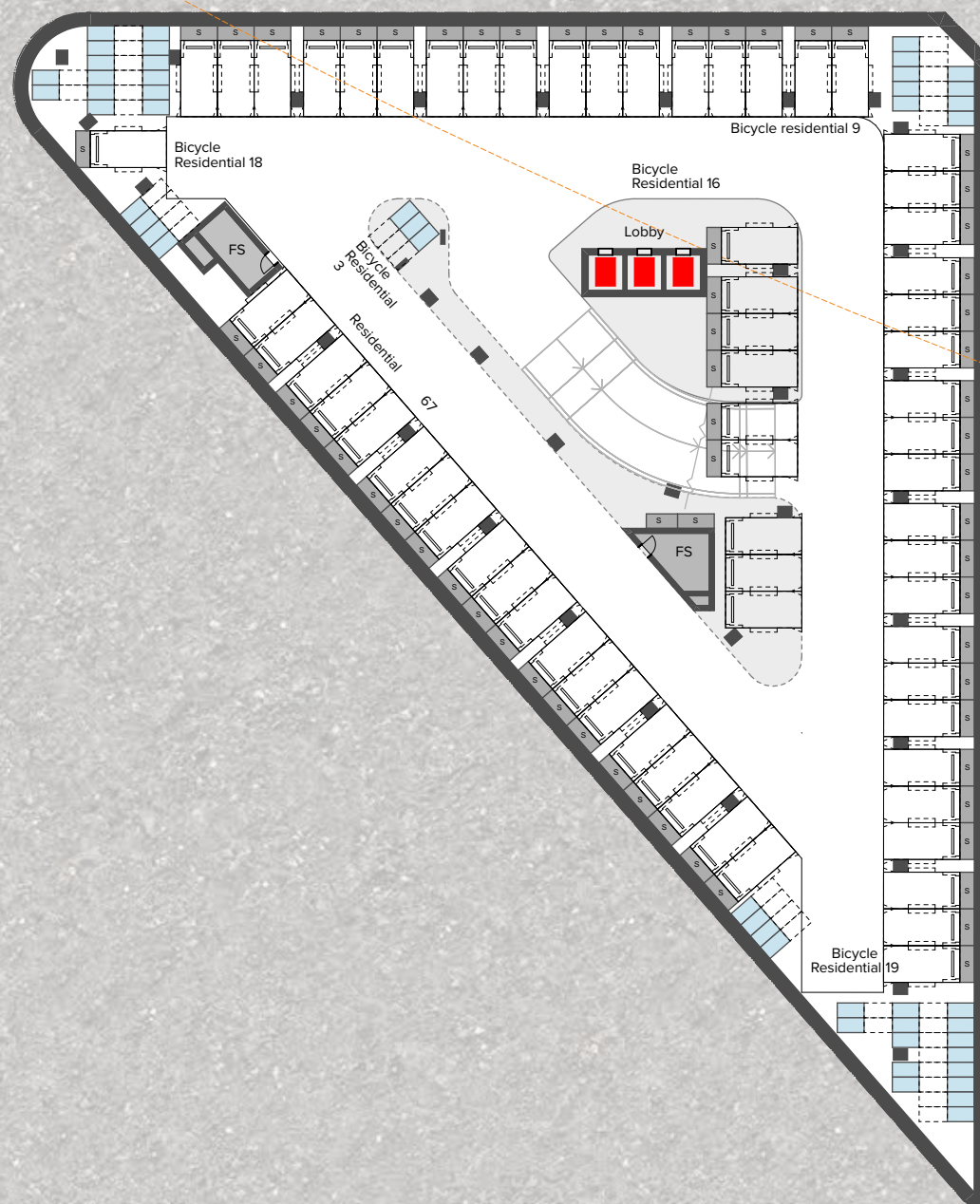
15

**Indicative
Plans**



- Residential
- ♿ Residential Adaptable
- Car Share
- Residential Visitors
- Non Residential
- Bicycle Residents
- Bicycle Residents Visitors
- Bicycle Commercial
- Bicycle Commercial Visitors
- Bicycle Retail
- Bicycle Retail Visitors



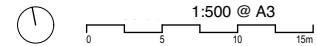


- Residential
- ♿ Residential Adaptable
- Car Share
- Residential Visitors
- Non Residential
- Bicycle Residents
- Bicycle Residents Visitors
- Bicycle Commercial
- Bicycle Commercial Visitors
- Bicycle Retail
- Bicycle Retail Visitors



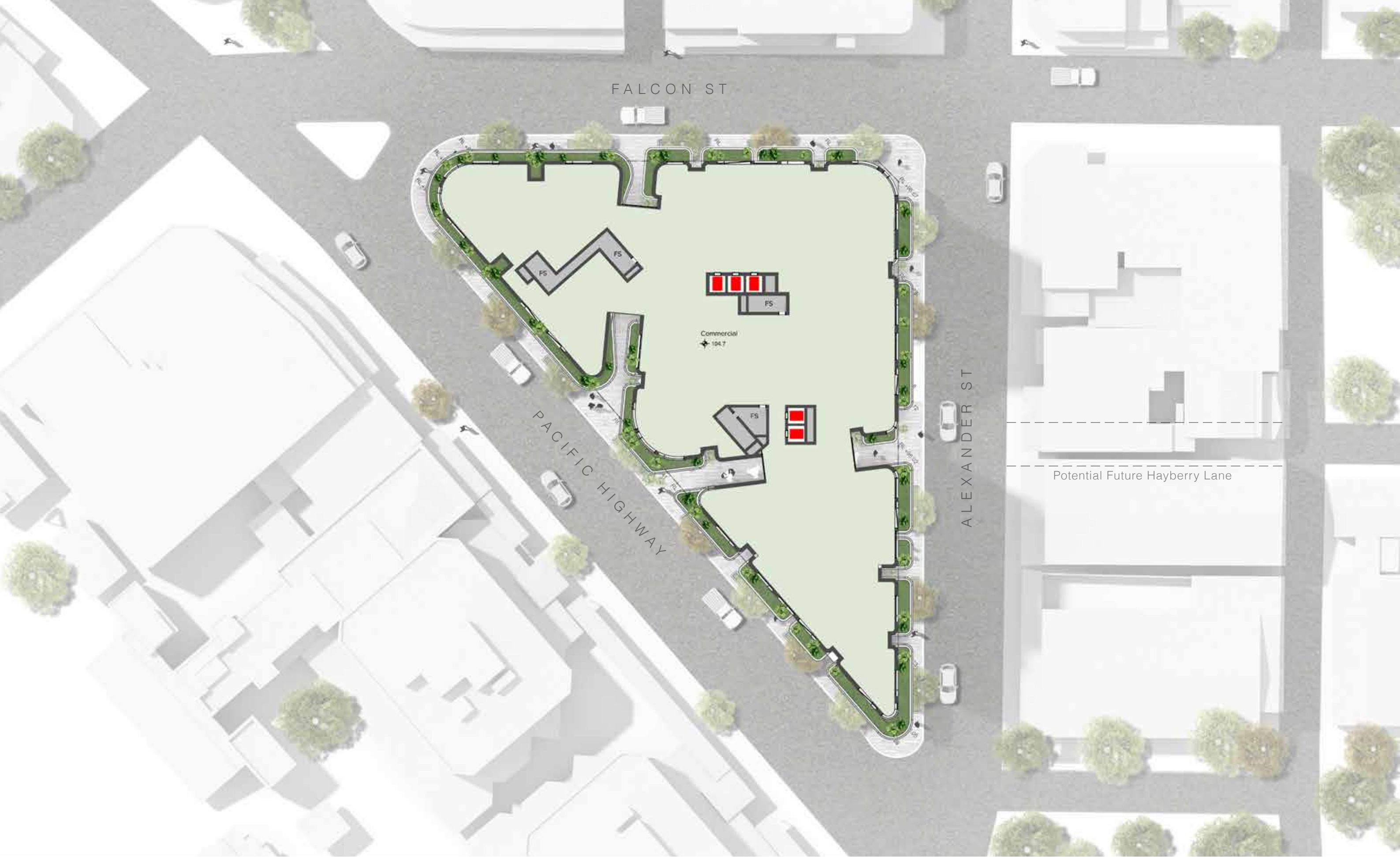
Design Proposal: General Arrangement Plans

Basement Level 5



Design Proposal: General Arrangement Plans

Ground Floor





1:500 @ A3
0 5 10 15m

Design Proposal: General Arrangement Plans

Level 2



FALCON ST

PACIFIC HIGHWAY

ALEXANDER ST

Potential Future Hayberry Lane

1:500 @ A3



FALCON ST

PACIFIC HIGHWAY

ALEXANDER ST

Potential Future Hayberry Lane

1:500 @ A3
0 5 10 15m

Design Proposal: General Arrangement Plans
Tower - Typical Floor 4-6



1:500 @ A3
0 5 10 15m

Design Proposal: General Arrangement Plans
Tower - Typical Floor 7-13



FALCON ST

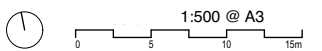
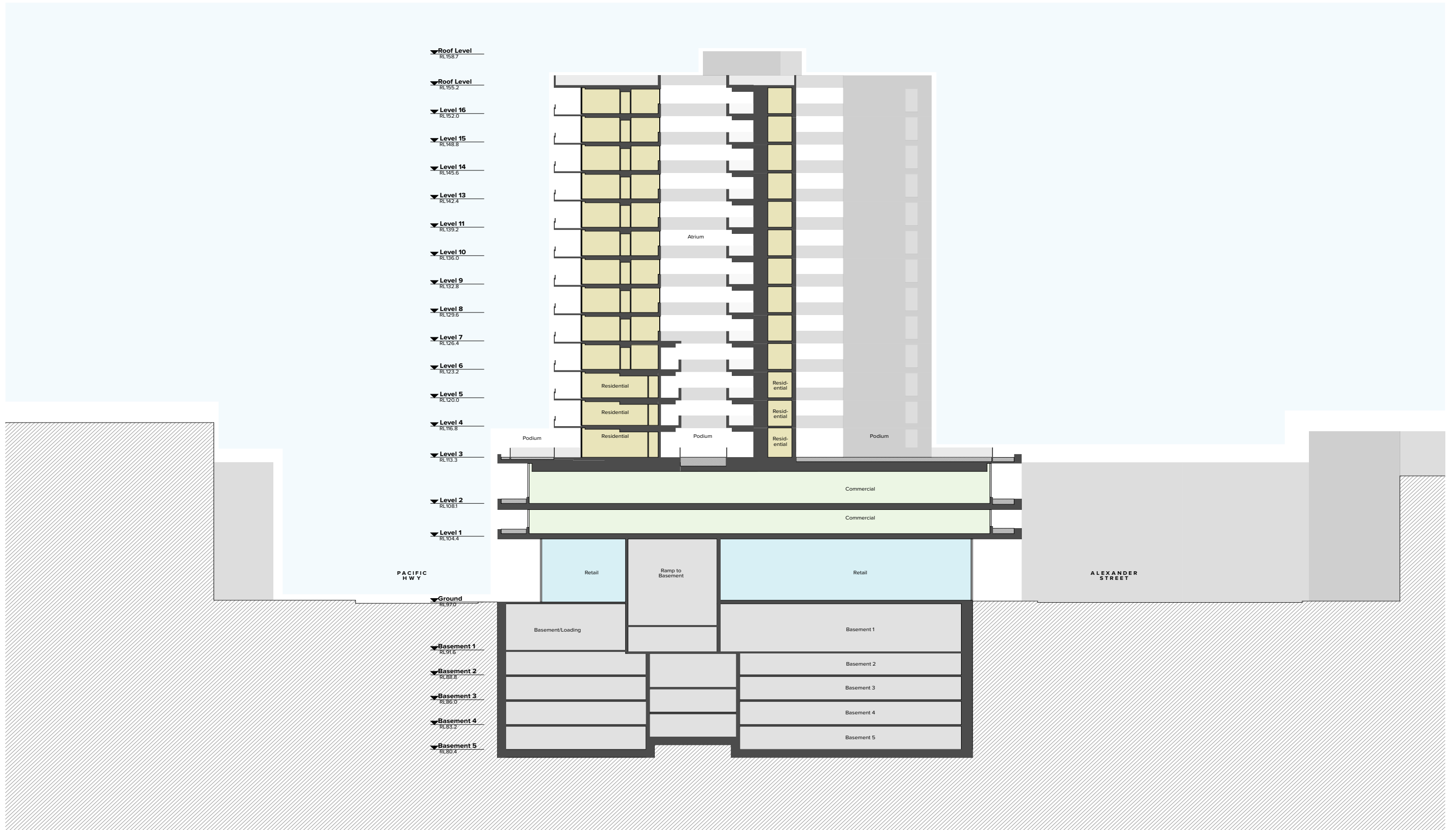
PACIFIC HIGHWAY

ALEXANDER ST

Potential Future Hayberry Lane



Design Proposal: General Arrangement Plans
Tower - Typical Floor 14-16



Design Proposal: General Arrangement Plans

Section



Development Metrics

Total Height (Including Podium)
16-Storeys

Podium GFA (3 levels)
8,002m²

Tower GFA (13 levels)
10,564m²

Typical Tower Floorplate GFA
829m²

Apartment Numbers per Floor
8 -12

Basement Levels
5

Indicative Apartment Mix
 1 BED: **25%**
 2 BED: **61%**
 3 BED: **14%**

Indicative Basement numbers as per
 North Sydney DCP

Residential	113	Car Spaces
Non Residential	133	Car Spaces
Car Share	12	Car Spaces
Motorcycles	11	Spaces
Bicycles	303	Spaces
(Residential, Non Residential & Visitors)		

