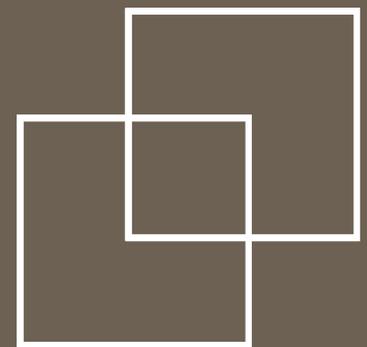


96-98 Lethbridge street &
42-46 Evan Street, PENRITH

Design Verification Statement



URBAN LINK
ARCHITECTS



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PART 1

PROJECT SUMMARY

Introduction

The SEPP65 Design Verification Statement and response to the Design Quality Principles has been prepared by Urban Link Architects on behalf of Devcon Partners P/L which forms part of the Development Application (DA) submission for the site at 96-98 Lethbridge Street and 42-46 Evan Street. The application seeks consent for the proposed residential development on the subject site.

This report should be read in conjunction with the accompanying architectural design package prepared by Urban Link Architects, landscape drawings prepared by NBR Architecture and the Statement of Environmental Effects with appendices prepared by City Scope.



Site Context

96-98 Lethbridge Street and 42-46 Evan Street and from here on known as the Site, occupies Lots X/DP389668, A/DP376772, 1/DP18848, 2/DP18848, 18B/DP407961, 71/DP810706, 72/DP810706 AND 6/DP519556 and has a total site area of 6,860m².

The subject site is located just outside of Penrith's City Centre Zone and is accessed via Evan Street on its western boundary and via Lethbridge Street on its northern boundary.

It is surrounded by various built forms ranging from single storey homes to six storey residential developments and there is also a small heritage cottage adjacent the site's southern boundary and a heritage church on the opposite side of Lethbridge Street - St. Stephen's Anglican Church. Buildings are typically setback from the street edge and a generous zone for pedestrian movement and street landscaping is accommodated.

Almost all of the surrounding sites have a number of trees in their garden space (both front and back gardens), which not only contribute to the street's character but also provide shelter, privacy and an organic environment and all of the buildings on both streets are residential in use and all provide off-street parking. On-street parking is also available on both streets.

There is a fall of approximately 5m along Evan street and Lethbridge street is almost flat. It has a street frontage of 71m along Evan Street and 31m along Lethbridge Street.

Natural Context

Topography: The site's levels fall by approximately 2.5m across the site in a South - North direction between Evan and Lethbridge Street. This change in level is most evident when looking south from the centre of the site towards the boundary adjacent the properties which front Derby Street. A more subtle change in level also occurs when looking north towards Lethbridge Street from the centre of the site, rising by approximately 1m. The impact of this change in level is less visible.

Vegetation: The location and coverage of the site's trees, provide an important contribution to the character and quality of the local streetscape. They will not only muffle out noise from any passing traffic, but also provide shading and protection to the existing pedestrian footpaths.

Views towards any upper residential floors from street level will be screened by the existing street trees but sunlight can still penetrate through, especially during the winter months when their leaves are shedding. Also the lush green and voluminous foliage of the trees provides relief from the surrounding built context and create a natural organic environment.

Proposal

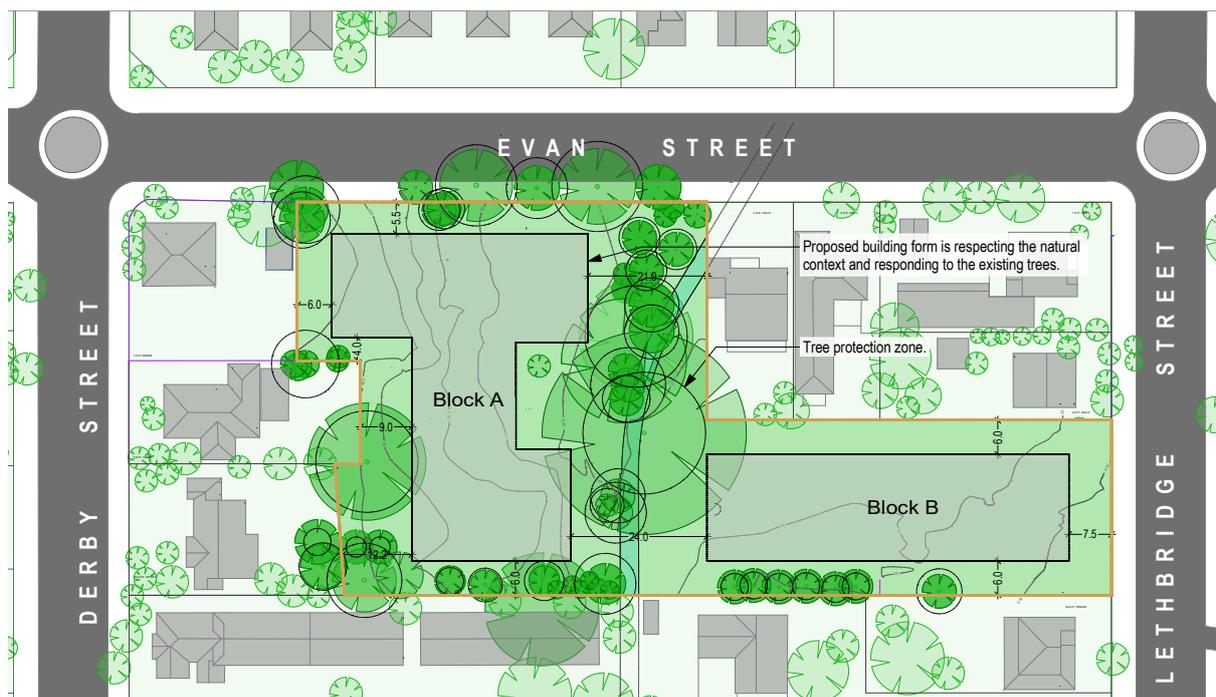
The proposal for the Site includes the construction of 133 residential units over six stories and 196 parking bays over two basement levels with associated waste, plant and landscape/community facilities.

The scheme will have a total GFA area of 12,898m² and an FSR of 1.89:1. The 133 residential units will consist of 14 x 1 Bed, 91 x 2 Bed and 28 x 3 Bed units.

The main aim of the proposal is to respond to the site's environmental constraints and opportunities, along with its economic and social opportunities.

A focus has been placed on the site's natural environment and has been a key driver when deciding what is the best approach to the massing on the site, which included land/soil topography, vegetation/native flora and fauna, existing heritage elements, street access and movement and then finally flooding and easements.

The proposed development will aim to protect the native vegetation and avoid significant compromise to the native trees and ecology.



Project team

Urban Link Architects is engaged by Devcon Partners P/L to prepare the architectural design package for the proposed development.

Since January 2020, we have worked closely with the consulting team for the project and prepared the architectural design package including this design statement in support of the proposed development. Urban Link acknowledges the work of these consultants who have contributed to this project.



PLANNING CONTEXT

Applicable planning policies

The applicable LGA, in which the site is situated in, is Penrith City Council and refers to the controls noted in Penrith’s DCP 2014 and Penrith’s Local Strategic Planning Statement. Both documents provide site specific controls for the site and the proposal has been considered in relation to these controls and offers a complying scheme which meets the requirements of the control plans.

Massing Context

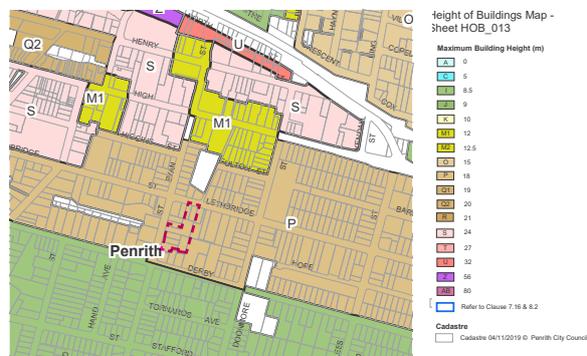
A number of changes to the maximum building height are proposed for the area with a recommended height control of 18m for the site.

All of the adjacent sites also have a proposed height control of 18m before moving north towards the city where the proposed heights start to increase to 20m, 24m 32m and 56m. The sites located to the south of the site will maintain at a height control of 9m.

To achieve the urban objectives envisioned for the site, an 18m building height has been applied to the site. Assuming a 3.1m floor to floor height for each level, this would equate to a five- storey building with parapets and lift over-runs.

However, the site cannot achieve its full potential due to the existing trees on the site. Setback zones which normally comply to DCP and ADG guidelines need to be increased considerably resulting in a considerable loss of GFA - the approximate loss per floor is 1,183m².

On the other hand, the trees on the site provide excellent security and privacy from street level. Sight lines to the top of the buildings are limited and the overall height of the two blocks has minimal impact on the street character. This is also helped by the fact that most of the massing is set inbound from Evan Street and Lethbridge Street.



LEP Height Controls:



Existing Massing Context:



Potential Massing Context:

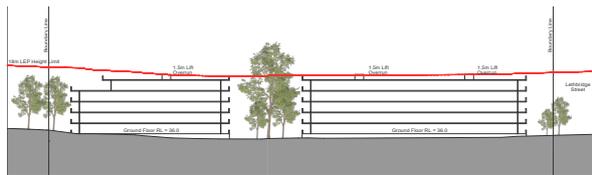
To make up for the considerable loss in GFA per floor, we propose adding a sixth floor onto a portion of Block A only.

The key objectives of Penrith's LEP with regards building height are:

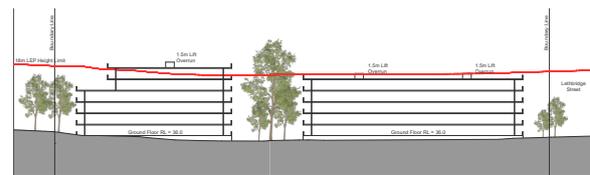
(a) *Ensure that buildings are compatible with the height, bulk and scale of the existing and desired future character of the locality.*



Increased Setback Zones:



Section - Five levels.

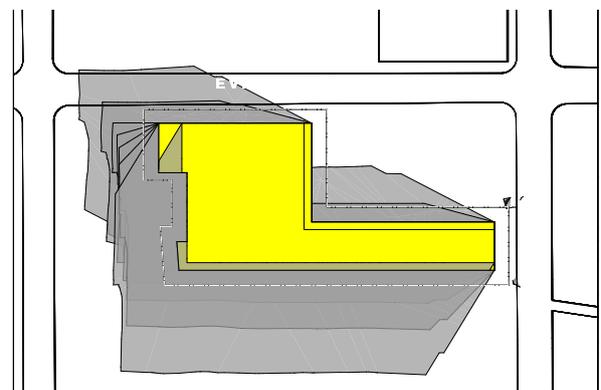


Section - Six levels.

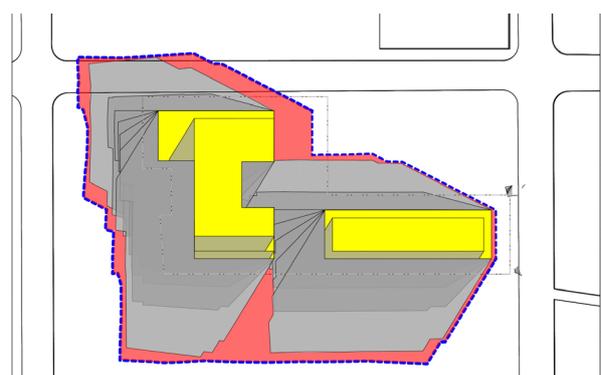
The proposed five storey design is complying with the LEP's and DCP's controls. Not only is it under the height limit but it is exceeding the setback requirements. However, the character of the area also accommodates six storey developments which are also working within the same controls.

(b) *Minimise visual impact, disruption of views, loss of privacy and loss of solar access to existing development and to public areas, including parks, streets and lanes.*

Image 01 represents the study of the total shadow cast between 9.00am and 3.00pm from the building mass which complies with the LEP and DCP controls. Image 02 is a study of the proposed building mass with the additional sixth floor portion added to Block A. Block B is five levels. By applying larger setbacks to the proposed scheme no additional shadows are cast. The amount of shadow is reduced.



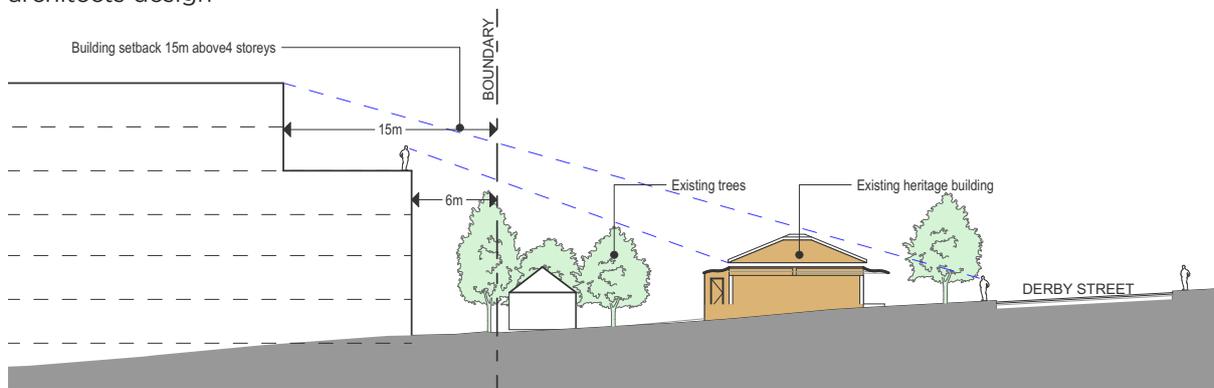
Shadow cast as per the LEP, DCP & ADG controls



Shadow cast from the proposed massing.

(c) Minimise the adverse impact of development on heritage items, heritage conservation areas and areas of scenic or visual importance.

The heritage items in the area do not influence the design of the proposed buildings. Heritage items are either screened by the existing landscape or located a considerable distance away. However the proposed building mass will be setback from the boundary line by 6m for the first four levels and a minimum of 15m for all levels above. Additional landscaping will also be added as per the landscape architects design

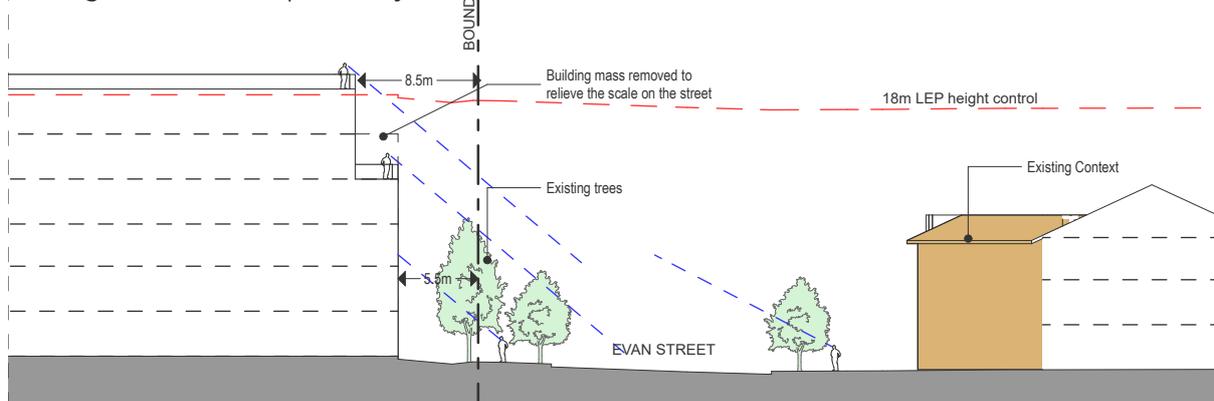


Site Section

(d) Nominate heights that will provide a high quality urban form for all buildings and a transition in built form and land use intensity.

Both buildings will be setback as per the DCP's requirements with an additional 2m setback added to the building fronting Lethbridge Street. The fifth floor is also setback an additional 3m.

The transition for the upper levels fronting Evan Street on Block A is setback an additional 3m relieving its mass and scale at street level. However the top floor are almost fully screened by the existing trees with the possibility of a sixth floor.



Site Section

ANALYSIS

Site Analysis

The site is located just outside of the Penrith City Centre zone. It is accessed via Evan Street on its western boundary and via Lethbridge Street on its northern boundary.

It is surrounded by various built forms ranging from single storey homes to six storey residential developments. There is also a small heritage cottage adjacent the site's southern boundary and a heritage church on the opposite side of Lethbridge Street - St. Stephen's Anglican Church.

Site Area: 6860m²

Site frontage on Evan Street = 71m

Site frontage on Lethbridge Street = 31m

Legend:

- Site Area
- Heritage
- Existing Multi-Storey Residential
- Zoned High Density Residential



Context

The site's northern and western frontages are identified by Lethbridge Street and Evan Street respectively, both having a range of building forms & typologies. Buildings are typically setback from the street edge and a generous zones for pedestrian movement and street landscaping is accommodated.

There is a fall of approximately 5m along Evan street which is also heavily populated with large dense trees, which provide a natural screen to the road yet privacy to any potential residential unit behind. There is a small heritage cottage at the bottom of the street and existing single story houses at the top, adjacent the roundabout. Lethbridge street is almost flat but has less trees but more residential homes. It has a more "open" feel to it and receives alot of natural sunlight.

Almost all of the surrounding sites have a number of trees in their garden space (both front and back gardens), which not only contribute to the street's character but also provide shelter, privacy and an organic environment. All of the buildings on both streets are residential in use and all provide off-street parking. On-street parking is also available on both streets. Both streets receive a low amount of vehicle and pedestrian traffic but provide good access to Penrith's City Centre district & surrounding motorways.



Key Plan:



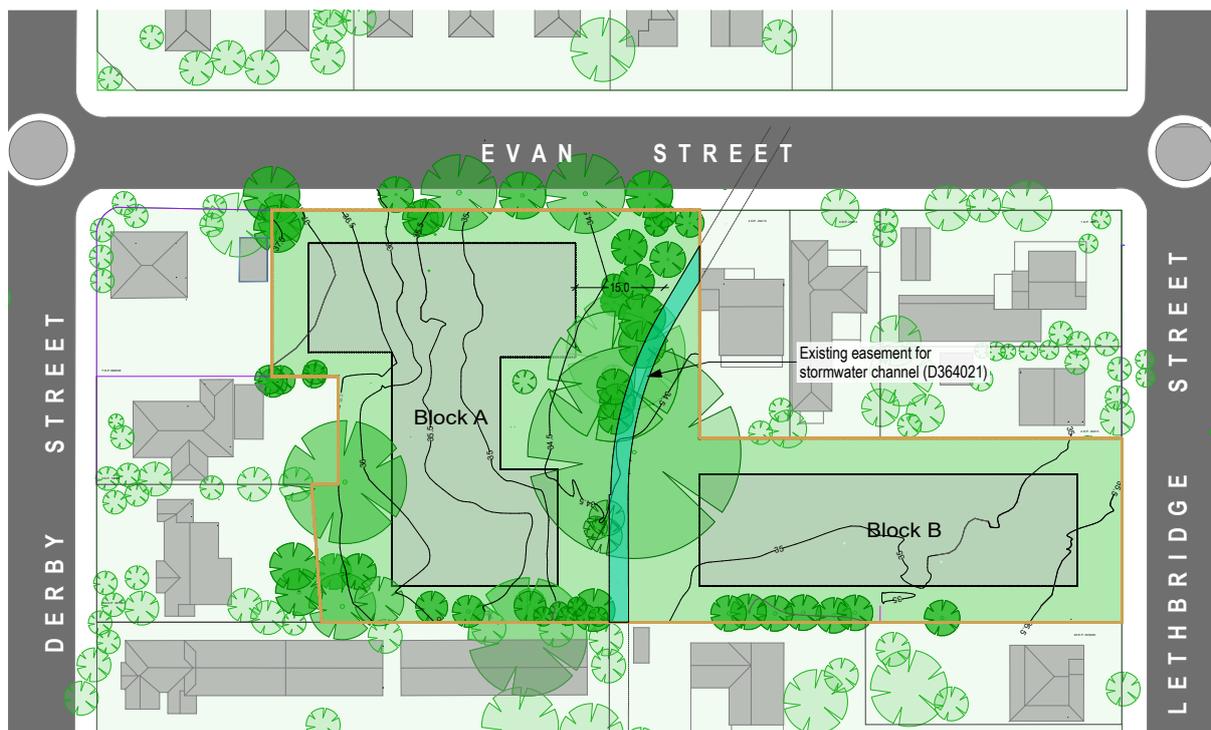
Easements:

As per our survey information, we are aware of an existing easement which runs in a East / West direction across the centre of the site to accommodate a stormwater pipe.

The easement will need to be reviewed in more detail at a later date. However, as demonstrated earlier, the proposed massing, which is responding to the natural and built-form context, is not built over this existing easement. However, the easement may impact the basement levels if the basements for the two forms are connected.

Council's development engineers have advised us that any proposed massing built up next to the easement and any basement construction underneath could be considered.

This stormwater drain and our basement options will need to be discussed with our hydraulic and civil engineers and council's engineers in more detail.



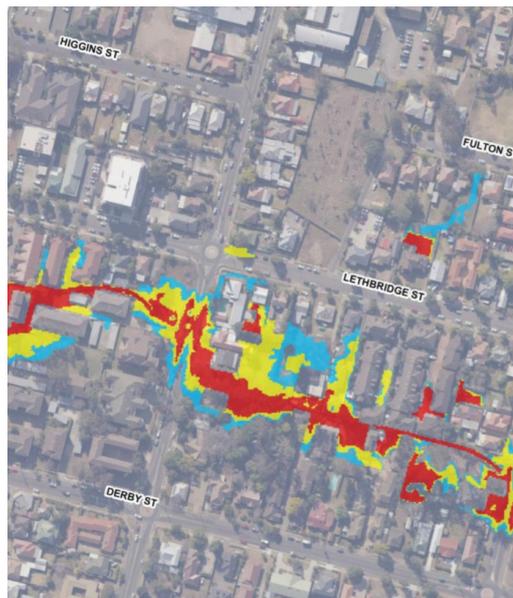
Flooding

The site's flood behaviour impacts the internal ground levels and the overall heights of the buildings.

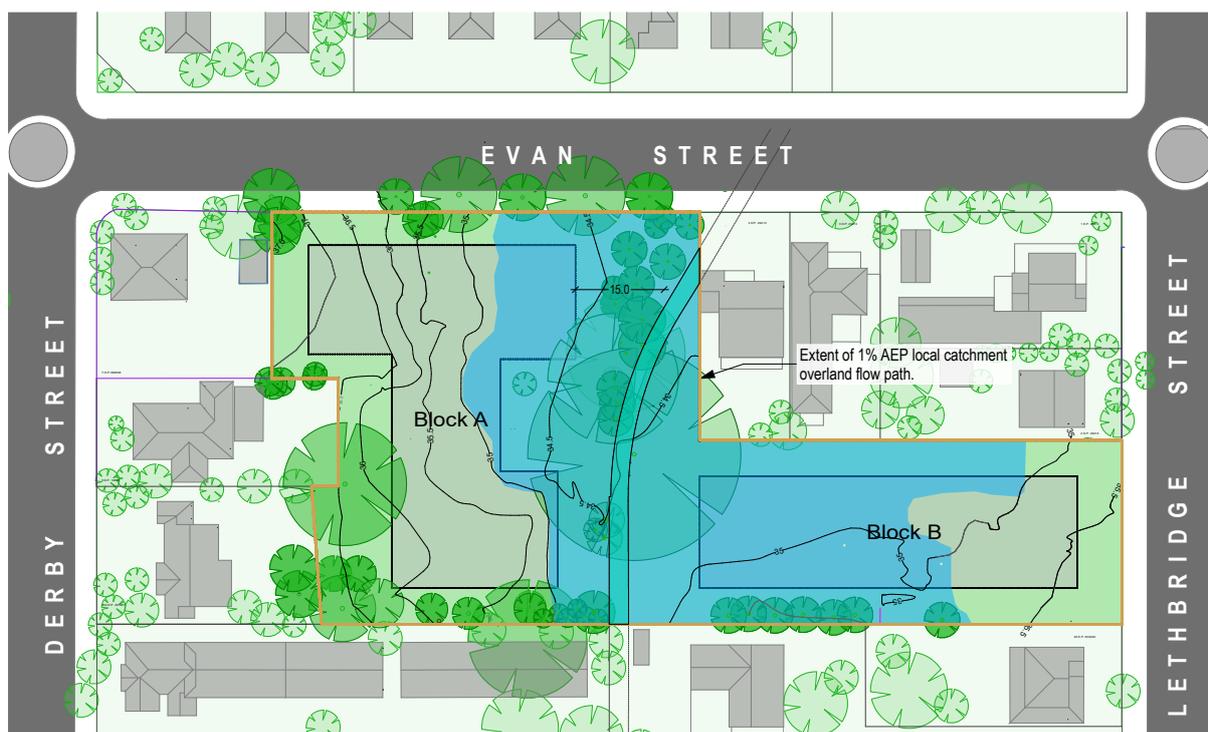
The 1% AEP local overflow flood levels affecting the overall site are estimated to be between RL34.4 and RL35.5 - these levels are taken from Penrith Councils studies for flood mapping for the city which shows properties affected by overland flows in excess of 150mm.

Working with the highest AEP level of RL35.5 we have adopted a minimum freeboard level of RL36.0 for the internal ground floors - 500mm above the annual exceedance probability.

This proposed internal level will be subject to councils DCP controls and further site investigation.



Penrith City Council - Hot Spot 9



Traffic:

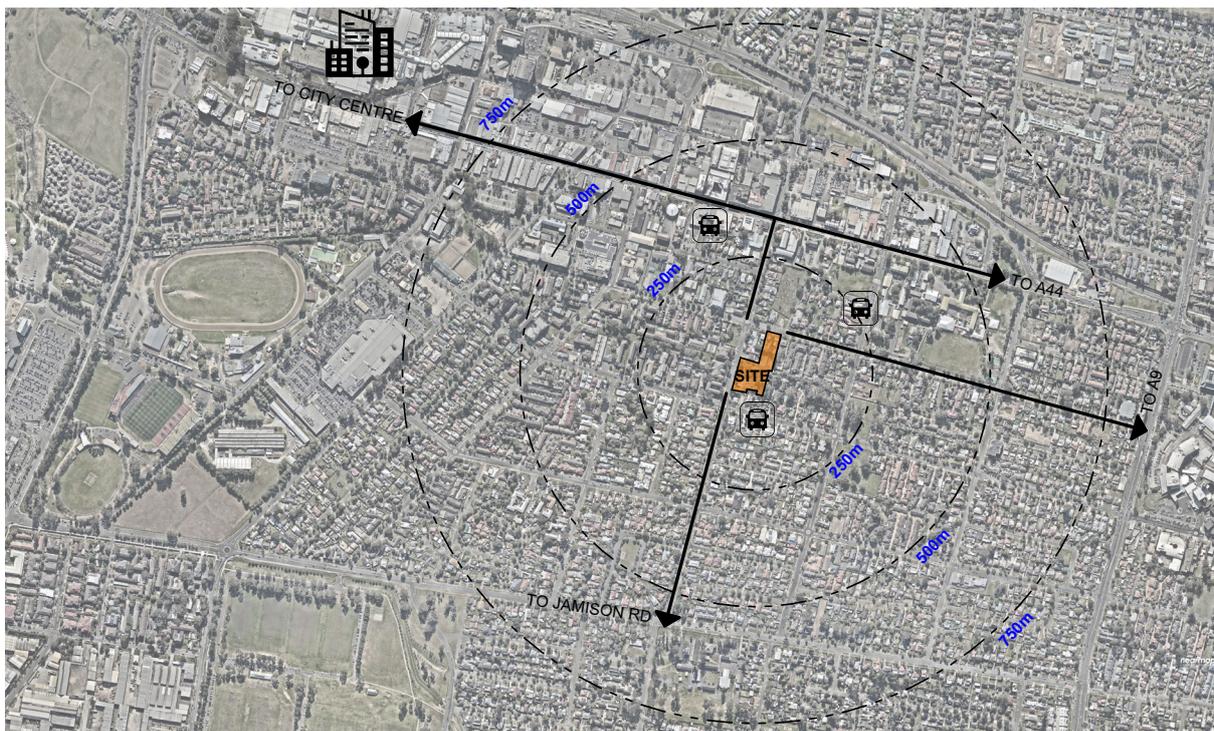
The site is located within 1.5km from Penrith Train Station and Westfield's Shopping Centre. It also has access to the local bus service's and easy vehicle access to Jamison Road, the A44 & A49 roads.

It has a site frontage of 72m along Evan Street and 31m along Lethbridge Street which are approximately 43m & 40m from the Evan Street and Lethbridge Street roundabout.

Pedestrian footpaths are existing, making it easier to accommodate all bicycle, pedestrian & accessible movement to and from the site and vehicle and pedestrian entries and exits can be accommodated onto both streets.

It is best if all larger vehicles entered the site via Lethbridge Street. This is because of the larger street frontage and its distance from the roundabout making it easier for larger vehicles to turn.

All visitor and residential car parking along with bicycle parking will be located underground. No parking at all will be provided at ground level. On-street parking will still be available.



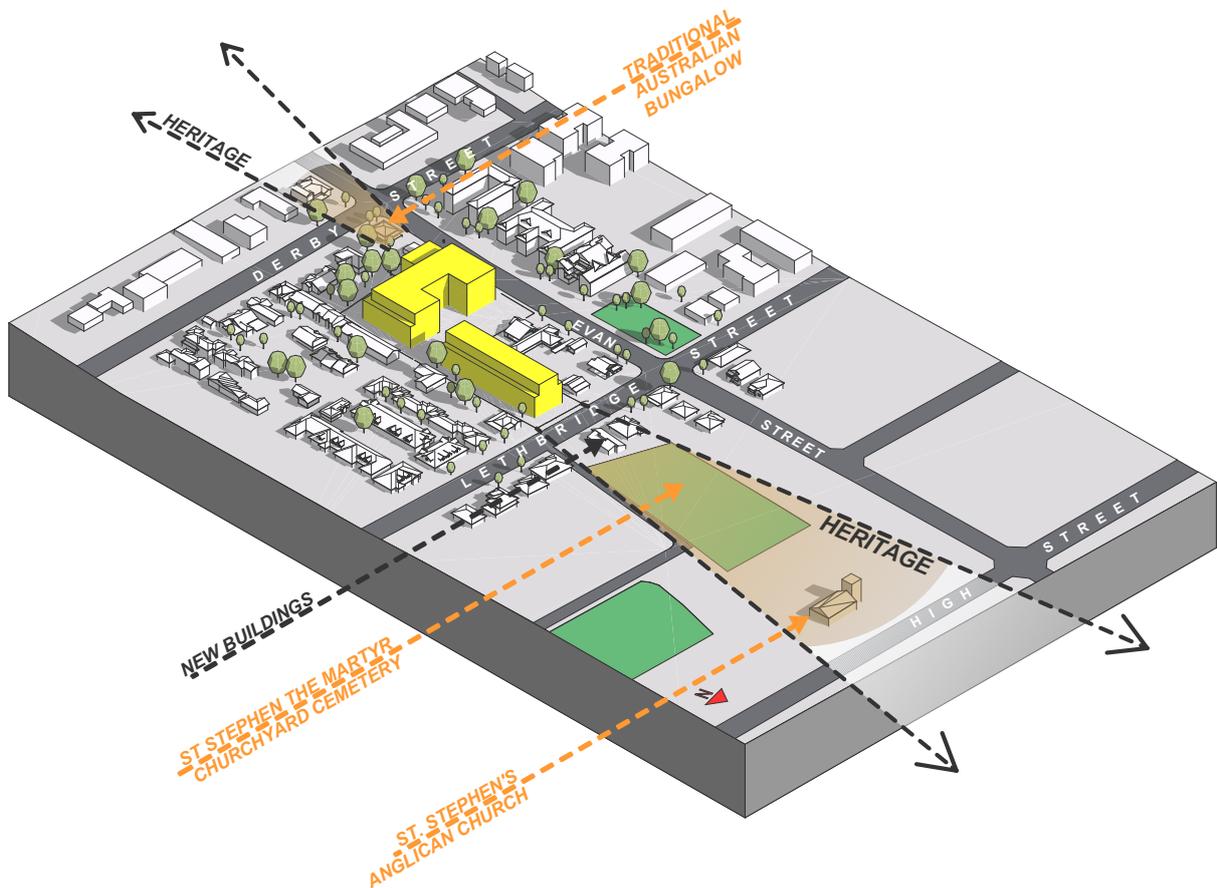
Heritage

St. Stephen,s Anglican Church:

The foundation stone of St. Stephen’s Anglican Church was laid in 1937, with the first service held in the courthouse. St Stephen’s is the 14th oldest church still in use in Australia. The church is of Gothic design which provides a welcome landmark to the area.

However, the church and cemetery address either High Street or a side lane off Lethbridge Street, but not Lethbridge Street itself. From street level on Lethbridge Street there is very little visual connection to the heritage gothic church. The site’s boundary is approximately 200m away from the church and approximately 45m from the graveyard boundary.

It is viewed that the proposed massing will not impact the heritage item or cemetery and their heritage significance.



Heritage Cottage:

The heritage cottage is located at the corner of Derby Street and Evan Street. It is a brick Victorian cottage with symmetrical elevations and has a hipped roof which is sheeted in corrugated metal. and its verandah has a bellcast profile roof which returns along the side and rear elevations.

It is situated on a large corner allotment with large mature trees located along its boundary adjacent our site's southern boundary.

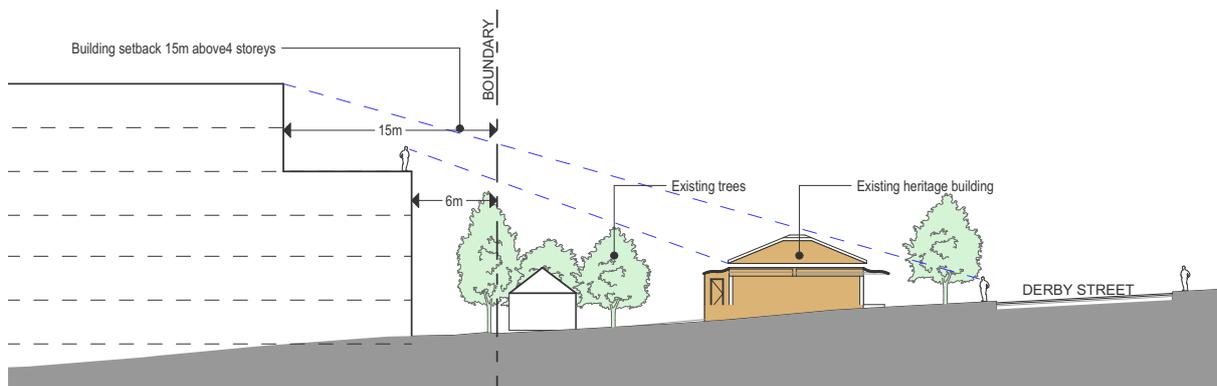
Heritage Relationship:

- The heritage cottage is screened by the existing landscape and its privacy and protection is not impacted.
- The proposed building mass is setback from the boundary line by 6m for the first four levels and a minimum of 15m for all levels above.
- There is no visual connection at street level on Evan Street between the heritage cottage and the proposed development.



Heritage Cottage, 163 Derby Street, Penrith

- The setting of the existing heritage item is not being disturbed.
- Additional landscaping will be added (as per the landscape treatment proposal) where required to improve the privacy and protection of the boundary to the cottage



Site Section

PART 2

DESIGN VERIFICATION

Sepp65 Design Verification Statement

Pursuant to Clause 50 (1A) of the Environmental Planning and Assessment Regulation 2000, I hereby declare that I am a qualified designer, which means a person registered as an architect in accordance with the Architects Act 2003 as defined by Clause 3 of the Environmental Planning and Assessment Regulation 2000.

I directed the design of the development stated above and I confirm that

1. The design achieves the Design Quality Principles set out in Schedule 1 of the State Environmental Planning Policy No 65 (SEPP 65). A summary of how these are achieved are following.
2. The design achieves the objectives if the design quality principles as set out in the State Environmental Planning Policy No 65 Design Quality of Residential Flat Development.

Signed



Ziad Boumelhem
Associate Director
Nominated Architect (No. 8008)



DESIGN STRATEGIES

Architectural Design Statement

The following outlines our vision for 96-98 Lethbridge Street and 42-46 Evan Street, Penrith:

“..... the design response is contextual, creating a building that interacts with the surrounding environment around it. The natural environment defines the building character and form. This is balanced by the provision of amenities for a lifestyle that is connected to the city.....”



Design Objectives:

The key design objectives are:

- Built form that interacts with the surrounding natural environment
- Height, massing and scale that responds to its unique location
- An outdoor environment and design that is comfortable, secure and safe
- Use of sustainable materials and strategies
- A design response that is place-based and builds on the strengths of the existing character
- Promote accessible movement for all residents



Landscaping Strategy:

The following outlines our vision for 96-98 Lethbridge Street and 42-46 Evan Street, Penrith:

“Evan Street will become a new residential community, diverse in its offerings. Creating an urban backyard for its residents and providing spaces for living, learning, playing or to just ‘simply be’.....”

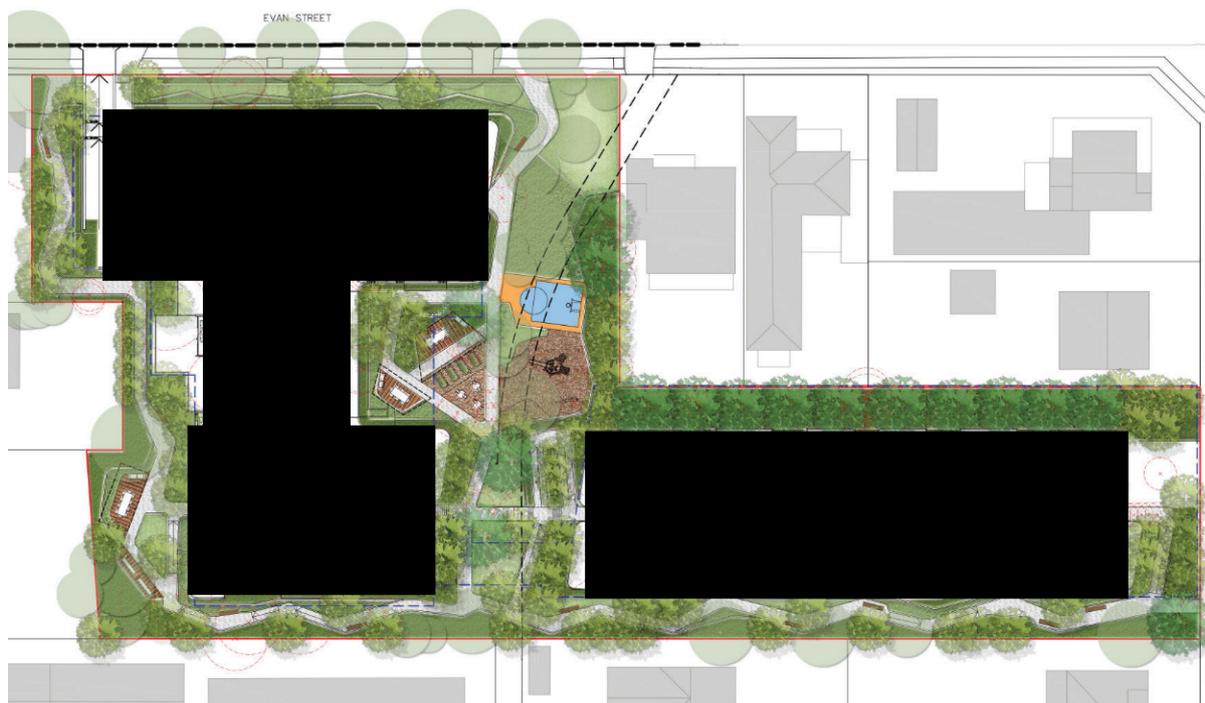


Landscaping Strategy:

Evan Street will offer communal open spaces for the enjoyment of residents and visitors.

It will reflect the Australian urban backyard providing suitable places for families to grow through shared outdoor space. Facilities will allow residents to gather outside providing spaces such as open lawns, sensory gardens, kitchen gardens and nature play allowing children to play and learn amongst existing trees, with communal alfresco areas, kitchen gardens and a fitness area to be enjoyed by all. The landscape encourages social interactions, inclusiveness, safety, health and wellbeing.

Reflecting the Nepean River, movement corridors become places of respite amongst a green setting with planting provided at various heights creating a sense of scale of native lush character. Various Shade amenity is created through native tree planting as well as pergola structures for gathering.



Landscape Concept Ground Floor Plan:

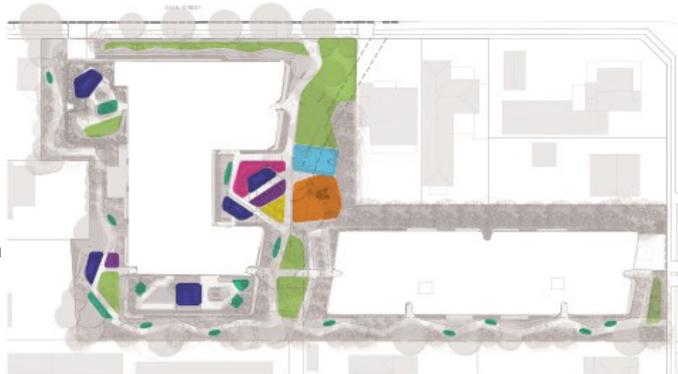
Canopy:

The landscape design retains a significant amount of existing trees which will strengthen character of place and provide mature a mature landscape from day one. Reducing building scale and integrated into proposed planting and lawns, with a canopy cover of 40%, existing trees together with new trees will provide shade throughout the communal open spaces mitigating the sites urban heat island effect.



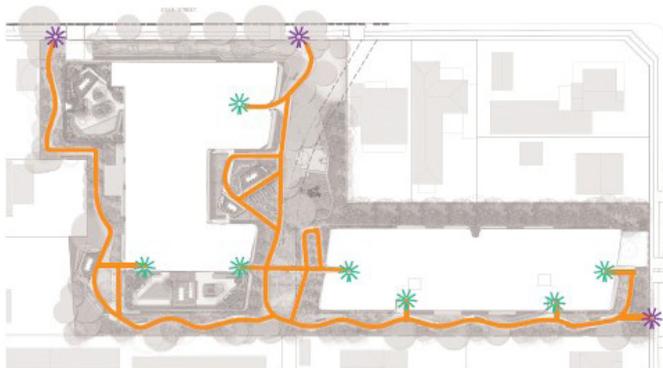
Places:

The communal open space offering for the site will provide users with a series of spaces that are interconnected via meandering pathways. Reflective of the Nepean River’s organic nature, pathways create seating nooks accomodating bench seating and providing areas for respite. Amongst existing trees a nature playground is located off Evan Street at the lobby entry allowing for ease of access for families to both the playground and fitness areas where fitness stations and basketball hoop contribute to residents health and wellbeing. Throughout ground level and level 4 and 5 terraces, several communal outdoor dining areas and kitchen gardens will strengthen community living and social interaction contributing to the landscape as an urban backyard.



Movement:

The Evan Street development will be accessed via both Evan Street and Lethbridge Street by key entry points into the site. A series of meandering pathways throughout the site connects these entry points and guide users to and from building entries and through interconnected communal spaces at ground level.



Communal Open Space:

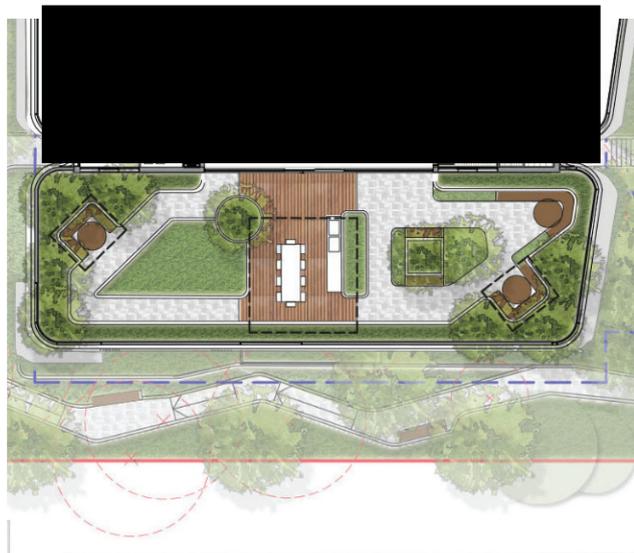
Level 4 communal terrace will provide spaces that harness community living. The terrace will feature BBQ facilities and a communal dining area with kitchen gardens; sheltered to help mitigate weather elements such as sun and wind.

Raised and layered planting frame the terrace and integrated with bench seating will provide spaces for individual respite and relaxation. A lawn area is also provided for gathering and passive recreation such as Yoga and Tai Chi.



Level 04 Communal Open Space

Level 5 communal terrace will provide spaces that create opportunities for both individual respite and social interaction. The terrace will feature BBQ facilities and a communal dining table framed by a pergola structure to help mitigate weather elements such as sun and wind. Raised and layered planting will encapsulate seating areas such as bench seating and table settings providing spaces that are amongst a lush green and gardenesque setting.



Level 05 Communal Open Space

PART 3

SEPP 65 DESIGN QUALITY PRINCIPLES

Design quality principle 1

Context and neighborhood character:

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions. Responding to context involves identifying the desirable elements of an area's existing or future character. Well-designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighborhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.



Proposal:

The proposed design not only aims to fulfill councils vision for the site and provide a satisfactory massing that relates to the surrounding buildings and residential use, but also provide a building with a desired character that means to protect and enhance the natural landscape and visual amenity or look of the area.

The existing trees and natural context have been explored in detail and the proposed design is located on the site, within the trees, so that it has minimal impact on the existing natural character. It examines the clearance requirements for the existing trees along the street edges and the sight lines from the street towards our site and deliberately makes sure that neither items are impacted.

Natural colors are proposed to blend in with the natural environment and setbacks from the street edge are increased along Lethbridge Street and from the boundaries of 38 Evan Street, 159 Derby Street and 161 Derby Street so that the design is less imposing on the existing context and to accommodate the existing trees along these boundaries .

Increased setbacks are also allowed for along the southern boundary on the upper levels, next to 163 Derby Street, to respect the existing heritage cottage located at the corner of Evan Street and Derby Road.

Design quality principle 2

Built form and scale:

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.



Proposal:

The proposed development is deemed appropriate in terms of its bulk and scale and its overall suitability to the surrounding context.

As indicated previously, any height, bulk and scale impacts arising from the proposal are acceptable largely because the proposal complies with related development standards in Penrith's DCP and LEP controls.

More generally, however, the proposal is acceptable with regard to height, bulk and scale as it integrates effectively with the area's existing and emerging built form character and how it protects the existing trees.

Whilst the proposal's distant height, bulk and scale impacts have been considered, it is also necessary to consider bulk and scale along the streets for the purposes of understanding impacts to pedestrians.

In this regard, it is noted that the proposal includes clearly identifiable site entries and exits and accommodates increased setbacks along Lethbridge Street. Sight lines from both Evan Street and Lethbridge Street have been taken into consideration and the existing street trees and trees on the site have being maintained.

Building separation to a number of boundaries has being increased and relieve to the building form is provided for as you move up the building with increased compliant setbacks.

Design quality principle 3

Density:

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context. Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.

Proposal:

The proposed density and use of the site is a direct response to the desired future character of the site.

The number of apartments and associated car parking provided is consistent with the proposed LEP and DCP controls. The mix of the apartment types provides further diversification and consistency for the area with the future desired density of the precinct to follow.

The total number of units provided is 133, which consists of 14 x 1 Bed units and 91 x 2 Bed units and 28 x 3 Bed units.

Whilst the development is consistent with the future desired density of the precinct the proposed building forms provide an appropriate balance between building footprint and landscaped area. The built facing Evan Street has its upper levels setback back from the boundary to respect the existing heritage listed element to the east of the site and setback distance to the boundary along Lethbridge Street has been increased from 5.5m to 7.5m. There are also a number of increased setbacks internally on the site to accommodate the existing trees and to create large landscape pockets which support the local residents.

The increased density from the current land use is also appropriate given the site access to transport and infrastructure (both social and community) and surrounding land usage.

Design quality principle 4

Sustainability:

Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and livability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials, and deep soil zones for groundwater recharge and vegetation.



Proposal:

The built form and landscape elements have been designed to embrace ESD principles, both passive and active.

The orientation, massing and articulation of the building forms ensures that apartment designs achieve adequate ventilation and daylight access into primary living areas and private communal areas. Apartment layouts have been designed so that solar access is maximised. In addition, overhangs and performance glazing further enhance the passive design features of the development.

Natural ventilation is provided to 81 apartments or 61% of units which will ensure reliable exposure to the relevant summer cooling breezes in Penrith.

Furthermore, over 2 hours of natural sunlight is provided to 93 apartments or 70% of units between 9.00am - 3.00pm on the 21st June as per the ADG guidelines. Balconies provide shelter from the summer sun while allowing winter sun to penetrate well into living areas. This will reduce the need for mechanical heating and cooling.

Communal open space is provided at ground level and levels 4 and 5. All areas achieve two hours of sunlight. Only 25% of communal open is required but almost 100% of the COS achieves 2 hours of solar.

The BASIX assessment and certificate confirms the developments resource, energy and water efficiency credentials.

Design quality principle 5

Landscape:

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well-designed developments is achieved by contributing to the landscape character of the streetscape and neighborhood.

Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, coordinating water and soil management, solar access, micro-climate, tree canopy, habitat values, and preserving green networks. Good landscape design optimises usability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity, provides for practical establishment and long-term management.



Proposal:

The proposal has a comprehensive landscaped concept and design integrated with the architectural program. The site, which is located just outside of Penrith's City Centre Zone, accommodates a number of landscaped community areas on the site.

As noted previously, the existing and proposed landscape played an integral part in the design development and incorporation into the scheme.

Communal space areas have been provided which are highly landscaped pockets distributed evenly throughout the building so residents can enjoy the benefits of community spaces with lush landscaping.

All the units overhead have access to outdoor balconies or terraces, majority having North facing aspect and enjoying local district views. The communal open spaces for the residents is located at ground level and on levels 4 & 5. All areas aim to provide recreational opportunities and good quality and usable facilities.

Further information on the landscape concept is outlined in the Landscape Plans by NBRS, included as part of this DA proposal.

Design quality principle 6

Amenity:

Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well-being.

Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, and ease of access for all age groups and degree of mobility.



Proposal:

Apartments include a mix of unit typologies, providing a high level of daylight access and natural ventilation. Apartment layouts have been developed to maximize the number of north facing units and street and district views. Solar access and cross-ventilation recommendations are met and exceeded.

The proposed apartments are designed to have excellent levels of amenity. All apartments meet the minimum apartment size recommendations of the ADG and are designed with regular shapes for ease of furnishing.

Separations will either meet or exceed the relevant habitable-habitable distance. Visual and acoustic privacy is also considered with screens, louvres are utilised to achieve the privacy recommendations of the ADG.

The proposed building has also been provided with the relevant DCP setbacks distances to limit overshadowing, maximise solar access and minimise privacy and overlooking issues.

Accessible apartments are provided to meet the DCP requirement and serviced areas and back-of-house zones are designed to operate independently from the residents and public car parking zones.

Design quality principle 7

Safety:

Good design optimises safety and security, within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximize passive surveillance of public and communal areas promote safety.

A positive relationship between public and private spaces is achieved through clearly defined secure access points and well-lit and visible areas that are easily maintained and appropriate to the location and purpose.

Proposal:

The proposal optimises safety and security by carefully integrating the residential components so that they optimise the activation of the public domain and produce a safe and secure environment for all users.

The principles of CPTED are achieved and consider natural surveillance, natural access control and natural territorial reinforcement as outlined below:

Surveillance - The development embodies good levels of casual surveillance from within the building and from the street. The proposed building and landscaping design do not create any concealment areas.

Access - The ground level entries will be secured and fitted with a telecom for visitors. The entries to the building are provided for along the eastern and western boundaries from George street and partially enclosed with clear site lines to both the street and communal open area. The services, loading and basement entry strategy allows residential vehicles to access the site from George Street and the garbage truck to park for kerb side collection which will have minimum disruption to the traffic. The lifts will be restricted to resident use only and will have coded key cards.

Security access and management procedures apply to the car parking areas. Generally, the proposed layout provides a high level of privacy and security. Adequate lighting to be provided for the lobby, car parks and communal open spaces, details will be submitted with the CC documents.

The proposed development has been designed in accordance with the objectives and better design practice of the Crime Prevention through Environmental Design (CPTED) which can found in part 5 of this report.

Design quality principle 8

Housing diversity and social interaction:

Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

Well-designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix. Good design involves practical and flexible features, including different types of communal spaces for a broad range of people, providing opportunities for social interaction amongst residents.

Proposal:

The development will provide a mix of 1 bed, 2 bed and 3 bed apartments. Within this mix is a range of different typologies and sizes adding to a range of choice and affordability.

The proposed design incorporates units capable of adaption and meeting the liveable housing level required, thereby promoting diversity, affordability and access to housing choice.

Communal spaces are designed to engender community spirit for residents within the development by offering both public and private areas for congregation and activities with common areas being designed for equitable access.



Design quality principle 9

Aesthetics:

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.

The visual appearance of well-designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.

Proposal:

The design approach for the site is to create a built form that sits comfortably within its natural context and have a sinuous organic language that relates to the natural surrounding environment.

Large openings are provided to maximise the outlook to the natural environment from within the apartments and from all of the common areas, a biophilic feeling is achieved with open ended corridors and four storey high voids at the corridor ends.

Entry points into the buildings are expressed with organic curves which is mimiced into the landscape design and natural organic colours are used to again relate to the existing surround natural environment.



PART 4

RESPONSE TO APARTMENT DESIGN GUIDE OBJECTIVES

The following provides a design response to the relevant objectives of the Apartment Design Guide (ADG) and describes the measures by which the proposed development meets the objects of the ADG.

Design quality principle 1

Context and neighborhood character:

Proposal:

2A Primary controls [p.28]

Objective 2A

Planning 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.*

- *Complies*
- *Refer to the architects and landscape architects drawings for primary control information.*

Controls need to be tested to ensure the desired density and massing can be accommodated within the building height and setback controls.

2B Building envelopes [p.29]

Objective 2B

Building envelopes should be 25-30% greater than the achievable floor space in order to facilitate adequate building articulation and achieve amenity goals.

- *Complies*
- *Refer to the architects drawings for building envelopes and building articulation.*

2C Building height [p.30]

Objective 2C

Ensure that building height controls respond to:

- The desired number of storeys*
 - The minimum floor to floor heights required for future building uses*
 - The desired future scale and character of the local area*
 - Landform and heritage*
 - Amenity*
- Complies*
 - Refer to the architects drawings for building envelopes and building heights - DA-21407-1409.*

2D Floor space ratio [p.32]

Objective 2D

Floor Space Ratios should be set which are consistent with achieving other parameters such as building height, building envelope and setbacks to:

- Align with the optimum capacity of the site*
 - Work with the desired density of the local area*
 - Provide opportunities for building articulation*
- The allowable gross floor area should only 'fill' approximately 70% of the building envelope*
- Complies - there is no FSR requirement on the site*
 - Refer to the architects drawings for the building's GFA - DA-1401.*

2E Building depth [p.34]

Objective 2E

Use a range of appropriate maximum apartment depths of 12-18m from glass line to glass line

An apartment building depth of 10-18 metres is noted as appropriate. At a detailed level this dimension is held to refer most directly to 'street-wall' buildings with small or no building separation to their ends. Freestanding towers may be deeper but must demonstrate how satisfactory levels of daylight and natural ventilation are to be achieved (for example by the use of larger windows).

- Complies - building depths exceed 18m however provide large wrapping windows and full height windows to lobbies*
- Refer to the architects drawings for the building depths - DA-101 - 105.*

2F Building separation [p.36]

Objective 2F

To ensure adequate amenity, especially daylight and privacy levels, minimum building separations

are offered but may be varied to zero.

For buildings 9 storeys and over (>25 metres):

- *24 metres between habitable rooms/ balconies.*

- *18 metres between habitable rooms/ balconies and non-habitable rooms.*

- *12 metres between non-habitable rooms.*

For buildings 5-8 storeys (13-25 metres):

- *18 metres between habitable rooms/balconies.*

- *13 metres between habitable rooms/ balconies and non-habitable rooms.*

- *9 metres between non-habitable rooms.*

For buildings 3-4 storeys (12 metres or less):

- *12 metres between habitable rooms/balconies.*

- *9 metres between habitable rooms/ balconies and non-habitable rooms.*

- *Complies*
- *Refer to the architects drawings for the building separation / massing.*
- *Separation between building A and building B is compliant with the ADG - 18m is provided between habitable rooms/ balconies*
- *Separation is compliant with possible future developments on the surrounding sites.*

2G Street Setbacks [p.38]

Objective 2G

Generally street setbacks should be between 1 and 10 metres although they may be reduced to zero where deemed appropriate.

- *Complies*
- *Refer to the architects drawings for the building setbacks - DA-101-DA105.*

2H Side and rear setbacks [p.40]

Objective 2H

Side and rear setbacks are to be appropriate to the context and should assist in achieving amenity, especially adequate daylight.

- *Complies*
- *Refer to the architects drawings for the side and rear setbacks - DA-101-105.*

3A Site analysis [p.47]

Objective 3A-1

Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context

- *Complies*
- *A site analysis plan is included in the architectural drawing package (DA-003)*
- *The section on "Analysis" includes comments on how the proposed design responds to the site analysis*

3B Orientation [p.49]

Objective 3B-1

Building types and layouts respond to the streetscape and site while optimising solar access within the development

- *Complies*
- *Building A is oriented North to maximise solar access*
- *Building B is oriented east/west to ensure maximum solar access*

Objective 3B-2

Overshadowing of neighbouring properties is minimised during mid-winter

Design Guidance

- *Where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%*
- *A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings.*

- *Complies*
- *The development is consistent with the DCP's guidelines on building setbacks*
- *The proposed two buildings significantly reduces shadow to surrounding neighbours*
- *The proposed storey exceeding the height adds additional shadow however does not reduce the neighbouring properties solar by more than 20%*
- *Refer to the architects drawings for all solar studies - DA-1403 - DA-1406.*

3C Public domain interface [p.51]

Objective 3C-1

Transition between private and public domain is achieved without compromising safety and security

- *Complies*
- *Residential access points are carefully located appropriately for clear legibility for residents and visitors*
- *Residential lobbies are secured to control access and to appropriately separate circulation routes.*
- *Apartment windows and balconies overlook the public domain for passive surveillance.*
- *The proposed design has minimized any opportunities for people to be concealed.*

Objective 3C-2

Amenity of the public domain is retained and enhanced

- *Complies*
- *The landscape for the public domain is designed to integrate with the architectural elements and to soften the building edges to form a transition from soft to hard elements.*
- *The interface with the public domain is carefully considered by way of lobby design and an integrated landscape concept.*
- *Mailboxes are located next to the entry to avoid unnecessary clutter in the public domain.*
- *Refer to the landscape design report for further information.*

3D Communal and public open space [p.55]

Objective 3D-1

An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping.

Design Criteria

- *Communal open space has a minimum area equal to 25% of the site*
- *Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid winter)*
- *The communal open space should have a minimum dimension of 3m*

- *Complies*
- *A large communal open space is located at Ground Level for access by all residents. Additional Communal Open spaces are provided at level 4 and 5 of Building A. The area of 2892m² (42%) exceeds with the minimum requirements (25%) and meets the design objectives of the ADG.*
- *The communal space provided will accommodate for different recreational activities and provide facilities for users of different age groups.*
- *Refer to the landscape architects for further information.*

3E Deep soil zones [p.61]

Objective 3E-1

Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality

Design criteria

Deep soil zones are to meet the following minimum requirements:

- *7% of site area*
- *<650sqm - no min dimension*
- *650sqm-1500sqm - 3m min dimension*
- *>1500sqm - 6m min dimension*

Objective 3J-2

Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space

- *Complies*
- *2404m² of deep soil has been provided which is 35% of the site area.*
- *Please refer to the landscape plans. A detailed stormwater design is included with the proposal to prevent adverse effects on neighbouring properties during severe storm events.*

3f Visual Privacy [P.62]

Objective 3F-1

Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy

- *Complies*
- *The setbacks provided are compliant with the requirements of the DCP and ADG building separation distances.*

Objective 3F-2

Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space

- *Complies*
- *Vertical Louvres and window placement allow for privacy whilst achieving solar access and views. The balcony and living room orientation allows for views to the lush landscaping.*

3G Pedestrian access and entries [p.66]

Objective 3G-1

Building entries and pedestrian access connects to and addresses the public domain

- *Complies*
- *A Separate residential entrance and lobby is provided at ground floor.*
- *Future signage that will identify the building.*

Objective 3G-2

Access, entries and pathways are accessible and easy to identify

- *Complies*
- *Ramps and stairs integrated with the overall landscape concept are provided for accessible and legible entries.*
- *Residential lobbies are distinguished from the general form with a distinct architectural character.*

Objective 3G-3

Large sites provide pedestrian links for access to streets and connection to destinations

- *Complies.*
- *The ground floor plan has been designed carefully to allow access through the site and landscaping to and from Evan and Lethbridge St*



3H Vehicle access [p.68]

Objective 3H-1

Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes

- *Complies.*
- *The car park entry point is located off Lethbridge Street to allow the smooth ingress of traffic into the site.*
- *Car park exit is only from Evan St this management of car entry and exit is a suitable solution to the increase of vehicles in the area.*
- *The width of car park entry and exit is minimized and clear sight lines are provided at vehicle crossings.*
- *Pedestrian and vehicle access points are kept separate but next to one another, due to the width of the site fronting George Street.*
- *Truck access and exit is only Via the Lethbridge St ramp. All trucks (service goods and garbage) will have to be co-ordinated to avoid any disruption to the street activity.*

3J Bicycle and car parking [p.71]

Objective 3J-1

Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas

Design criteria

- *The car parking needs for a development must be provided off street*

- *Complies.*
- *The provided car parking spaces for residential comply with the DCP requirements.*
- *Futher information about the vehicle entry, exit and traffic management can be found in the traffic report submitted with this proposal.*
- *The site is located in close proximity to public transportation services including bus services and Penrith Train Station.*

Objective 3J-2

Parking and facilities are provided for other modes of transport

- *Complies.*
- *Bicycle bays are provided at rates that comply with the DCP guidelines to provide other modes of transport.*

Objective 3J-3

Parking and facilities are provided for other modes of transport

- *Complies.*
- *Carparking levels have clear designated areas in front of stairs and lifts for pedestrian safety to avoid conflict with vehicles.*

Objective 3J-4

Visual and environmental impacts of underground car parking is minimized

- *Complies.*
- *Car parking is located on 2 levels of basement parking which is positioned completely underground.*
- *The entry off the road is minimized in width and appearance.*

Objective 3J-5

Visual and environmental impacts of underground car parking is minimized

- *Basement loading is limited for service vehicles (HRV).*

Objective 3J-6

Visual and environmental impacts of above ground enclosed car parking are minimised

- *Car parking areas are not visible from the public domain. Areas above lower ground level resulting from the topography of the site are integrated within the building façade or landscaped to suit the architectural design intent.*

4A Solar and daylight access [p.79]

Objective 4A-1

To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space

Design criteria

- *Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid-winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas*
- *A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter*

Objective 4A-2

Daylight access is maximised where sunlight is limited

Objective 4A-3

Design incorporates shading and glare control, particularly for warmer months.

- *Consistent with guidelines.*
- *70% of the apartments achieve the ADG recommendation for solar access.*
- *Private open space balconies have been integrated into the facade and building design, responding to the context and the desired objectives of the ADG.*
- *13% of apartments receive no-direct sunlight between 9am and 3pm mid winter across the design which is deemed acceptable.*
- *The location of the public and communal space has been designed to provide choice through the range of different spaces, all with optimised solar access.*
- *Refer to the solar diagrams – DA-1402 - DA-1406 for further information.*
- *Consistent with the guidelines.*
- *Units are orientated to the west and north to achieve 70% that receive over 2 hours of direct sunlight. Primary windows and balconies or most apartments are orientated to maximise sunlight.*
- *All living spaces have a balcony with an upper balcony/concrete shelter to shade from summer sun whilst allowing at least 2 hours sun during winter.*
- *Glass will be selected to meet BASIX requirements and reduce glare.*

4B Natural ventilation [p.83]

Objective 4B-1

All habitable rooms are naturally ventilated

- *All habitable rooms have a window with at least 10% of the floor area served.*
- *All rooms have windows that are openable and in combination with their orientation allow cross ventilation to be controlled.*

Objective 4B-2

Apartment depths are limited to maximise ventilation and airflow

- *The proposed floor plate limits single oriented apartments and maximises corner-oriented apartments by addressing George Street.*

Objective 4B-3

The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents

- *Consistent with ADG guidelines*
- *The proposal achieves the 60% minimum.*

Design criteria

- *At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed*
- *Overall depth of a cross-over or cross through apartment does not exceed 18m, measured glass line to glass line*

4C Ceiling heights [p.87]

Objective 4C-1

Ceiling height achieves sufficient natural ventilation and daylight access

Design criteria

- *Measured from finished floor level to finished ceiling level, minimum ceiling heights are:*
- *Habitable rooms: 2.7m*
- *Non-habitable: 2.4m*
- *If located in mixed use area: 3.3m for ground and first floor to promote flexibility*

- *The development has a floor to floor height of 3.1m for typical residential levels which allows all habitable rooms to have a ceiling height of 2.7m. Non-habitable rooms have a ceiling height of 2.4m.*

Objective 4C-2

Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms

- *Units have been designed to stack wet areas as much as possible and where not achieved can be controlled through carefully designed bulk-heads that do not compromise the spaces underneath. A 2.7m ceiling will be comfortable for all habitable spaces.*

Objective 4C-3

Ceiling heights contribute to the flexibility of building use over the life of the building

- *All levels will be residential and have a clear height of 2.7m to the under side of the ceiling in all habitable areas.*

4D Apartment size and layout [p.89]

Objective 4D-1

The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity

Design criteria

• Apartments are required to have the following minimum internal areas:

- Studio: 35sqm*
- 1 bedroom: 50sqm*
- 2 bedroom: 70sqm*
- 3 bedroom: 90sqm*

The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m each. A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m² each

• Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms

Objective 4D-2

Habitable room depths are limited to a maximum of 2.5 x the ceiling height. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window

- Complies*
- All units achieve or exceed the required minimum unit areas and allow an additional 5m² where a second bathroom is provided. All habitable rooms include windows so that there is no point where a window is not visible.*
- Each habitable room has a window area of at least 10% of the floor area*
- All habitable rooms have a depth of at least 2.5 x ceiling height*
- The maximum habitable room depth is no more than 8m in any apartment to a source of light.*

Objective 4D-3

4D-3 Environmental Performance Apartment layouts are designed to accommodate a variety of household activities and needs

Design criteria

Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excluding wardrobe space) Bedrooms have a minimum dimension of 3m (excluding wardrobe space)

Living rooms or combined living/dining rooms have a minimum width of:

- 3.6m for studio and 1 bedroom apartments*
- 4m for 2 and 3 bedroom apartments*

The width of cross-over or cross-through apartments

are at least 4m internally to avoid deep narrow apartment layouts.

- Complies*
- All units minimise access of bedrooms directly to living areas.*
- All units have a robe at least 1.5m long*
- Efficient planning and rectangular rooms allow flexibility in furniture planning*

4E Private open space and balconies [p.92]

Objective 4E-1

Apartments provide appropriately sized private open space and balconies to enhance residential amenity

- Complies*
- All apartments meet ADG requirements for balcony and terrace areas.*
- All balconies achieve the recommended widths of 2m for 1 and 2 bedroom apartments.*
- Refer to the architectural drawings for further information.*

Objective 4E-2

Primary private open space and balconies are appropriately located to enhance livability for residents

- Complies*
- Balconies connect directly to the primary living areas to improve livability*
- Where possible the bedrooms also connect to the external space.*

Objective 4E-3

Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building

- *Balconies form a strong architectural element to the building through use of lightweight balustrades to reduce the bulk appearance of the building.*
- *The balustrades consists of powdercoated aluminium vertical balustrades to reduce visual bulk and allow for solar access and views.*

Objective 4E-4

Private open space and balcony design maximises safety

- *Balconies are designed with no level changes, and limit the risk of climbing through careful the design of the balustrades or any nearby climbable fixed objects.*

4F Common circulation and spaces [p.97]

Objective 4F-1

Common circulation spaces achieve good amenity and properly service the number of apartments

Design criteria

- *The maximum number of apartments off a circulation core on a single level is eight*
- *For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40*
- *Where design criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level*

- *Lobbies, communal areas, garbage rooms and any other commons spaces are accessible and have restrictive access for safety.*
- *No more than 8 units access one lift.*
- *4 lift cores are provided for all 133 units.*
- *All residential common lobbies have natural light and ventilation.*
- *Lobbies are rational and 1.8m wide providing generous circulation space.*
- *All entries to units have a 'entry' space before leading to the primary living spaces or are positioned not to interfere with internal furniture arrangements.*

Objective 4F-2

Common circulation spaces promote safety and provide for social interaction between residents

- *Complies*

4G Storage [p.101]

Objective 4G-1

Adequate, well designed storage is provided in each apartment

Design criteria

• In addition to storage in kitchens, bathrooms and

bedrooms, the following storage is provided:

• 1 bed: 6m³

• 2 bed: 8m³

• 3 bed: 10m³

At least 50% of the required storage is to be located within the apartment

- *Complies*

Objective 4G-2

Additional storage is conveniently located, accessible and nominated for individual apartments

- *Complies*

4H Acoustic Privacy [p.103]

Objective 4H-1

Noise transfer is minimised through the siting of buildings and building layout.

- *Complies*
- *Building orientation has units facing the north, south and west boundaries.*
- *The residential units located on the ground floor are raised due to the flood level which in effect provides privacy whilst allowing passive surveillance.*
- *The building is significantly setback from the street edge.*
- *Party walls are minimised, and service ducts and systems are appropriately treated to habitable spaces*

Objective 4H-2

Noise impacts are mitigated within apartments through layout and acoustic treatments

- *Complies.*
- *Noisy areas within the proposed development including building entries and corridors are located above each other and quieter areas above quieter areas.*
- *Typically, bedrooms of adjacent apartments have been located next to each other and likewise with living areas.*
- *Acoustic treatments will be implemented in accordance with the acoustic report to mitigate noise between apartments and between spaces inside the units.*

4J Noise and Pollution [p.105]

Objective 4J-1

Noise impacts are mitigated within apartments through layout and acoustic treatments

- *Complies*

Objective 4J-2

Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission

- *Complies*
- *The subject proposal will incorporate seals to prevent noise transfer through gaps, acoustic glazing, and other measures where necessary to attenuate noise impacts to apartments.*
- *Acoustic treatments will be implemented in accordance with the acoustic report.*

4K Apartment Mix [p.107]

Objective 4K-1

A range of apartment types and sizes is provided to cater for different household types now and into the future

- *Complies*
- *A variety of apartment types are provided*
- *The apartment mix has been considered by the clients marketing consultants and deemed appropriate for the current market.*
- *The proposed apartment mix is appropriate, taking into consideration the distance to public transport, employment and education centres, as well as the current market demands and projected future demographic trends within the area.*

Objective 4K-2

The apartment mix is distributed to suitable locations within the building

- *Different apartment types have been located to achieve successful facade composition and to optimise solar access.*
- *Larger apartment types have been located on the top levels.*

4L Ground floor apartments [p.109]

Objective 4L-1

Street frontage activity is maximised where ground floor apartments are located

- *Compliant*

Objective 4L-2

Design of ground floor apartments delivers amenity and safety for residents

- *Due to the nature of the site and the flooding conditions the Ground level apartments are raised from NGL. In effect this affords greater amenity and safety for residents.*

4M Facades [p.111]

Objective 4M-1

Building facades provide visual interest along the street while respecting the character of the local area

- *Complies*
- *The proposed design of the facades respects the adjoining heritage listed building and incorporates a varied composition including changes in texture, material, detail and colour to modify the prominence and mass of elements. The material selection is of neutral 'earthy' tones to compliment the character of the area.*

Objective 4M-2

Building functions are expressed by the facade

- *Complies*
- *Residential apartments are clearly identifiable and distinguishable*
- *Refer to the architectural drawings and perspectives for further information.*

4N Roof design [p.113]

Objective 4N-1

Integration of Roof Treatment

Roof treatments are integrated into the building design and positively respond to the street

- *Complies*
- *Roof treatments have been integrated with the building design and materials to compliment the architectural aesthetic.*
- *The design seeks a subtle roof treatment that compliments the simple underlying architectural form of the building.*
- *Minor service elements have been integrated within the roof design.*
- *The roof treatment responds positively to the context as a subtle expression.*
- *Access to the roof area is restricted for lift maintenance only.*

Objective 4N-2

Roof & space usage

Opportunities to use roof space for residential accommodation and open space are maximised

- *Roof spaces on Level 4 and Level 5 of Building A have been utilized for Communal Open Space areas*

Objective 4N-3

Roof sustainability features

Opportunities to use roof space for residential accommodation and open space are maximised

- *The roof does not need to increase or flare up to improve solar access since sufficient solar access is already achieved.*

4O Landscape design [p.115]

Objective 4O-1

Sustainability and viability of landscape

Landscape design is viable and sustainable

- *Complies*
- *Landscape design provides an appropriate response for the existing but more importantly the future context of the area. It provides a diverse range of plantings with appropriately sized and located trees.*
- *A management plan will be prepared with the CC documentation and include opportunities for composting and herbs.*

Objective 4O-2

Landscape to streetscape and amenity

Landscape design contributes to the streetscape and amenity

- *Species have been selected to be appropriate for this position and locality. They will contribute positively to the streetscape and amenity.*

4P Planting on structures [p.116]

Objective 4P-1

Appropriate soil profiles are provided

- *Complies*
- *Soil profiles for plants on structure have been defined in the landscape architects' drawings and are appropriately considered.*

Objective 4P-2

Plant growth is optimised with appropriate selection and maintenance

- *Complies*
- *Species have been selected to be appropriate for this position and locality.*

Objective 4P-3

Plant growth is optimised with appropriate selection and maintenance

- *Please refer to the landscape architects drawings for all plant types.*

4Q Universal Design [p.118]

Objective 4Q-1

Universal apartment design and flexibility.

- *Complies*
- *20% of units are liveable unit types.*

Objective 4Q-2

Apartment Variety.

- *10% of the apartments are adaptable unit types.*

Objective 4Q-3

Apartment design to different lifestyles.

- *The unit types are designed to meet market needs.*

4S Mixed use [p.122]

Objective 4S-1

Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement

- *N/A*

Objective 4S-2

Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents

- *Complies*
- *The Residential lobby and circulation routes are set back from the public streets with designated secure points to control access.*
- *The arrangement of the lobby and entry points from the public streets simplifies the wayfinding and signage strategy for the development.*

4T Awnings and signage [p.125]

Objective 4T-1

Awnings are well located and complement and integrate with the building design

- *Awnings are designed to complement the design and allow covered walkways along shopfronts and into entries.*

Objective 4T-2

Signage responds to the context and desired streetscape character

- *Signage is limited to building identification, navigation and statutory signs. It is designed to fit harmoniously into the architecture and to contribute positively to the precinct.*
- *Dedicated signage will be subject to future DA Applications.*

4U Energy efficiency [p.127]

Objective 4U-1

Development incorporates passive environmental design

- *Complies*
- *Natural light is provided to all habitable rooms.*
- *The outdoor communal open area is designed to provide residents with flexible spaces and choice demonstrating a high level of passive environmental design.*

Objective 4U-2

Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer

- *Complies*
- *The proposed development incorporates passive solar design measures including overhangs and shading devices, insulated walls, roofs and floors, and seals on window and external door openings.*

Objective 4U-3

Adequate natural ventilation minimises the need for mechanical ventilation

- *Complies*
- *Majority of units are cross ventilated.*
- *Natural ventilation is provided to all habitable rooms and typically, to all common areas and circulation spaces.*

*4V Water management and conservation
[p.129]*

*Objective 4V-1
Potable water use is minimised*

- *Complies*
- *The development incorporates water efficient fittings, appliances and waste-water re-use.*
- *Plant selections are designed for the microclimate and are typically low-water use.*
- *Further details about the proposed planting and landscape concept is detailed in the landscape report submitted as part of the development application.*
- *The proposal incorporates water-sensitive urban design systems as illustrated in the stormwater concept plan that accompanies this application.*

*Objective 4V-2
Urban storm water is treated on site before being discharged to receiving waters*

- *A OSD collection zone is located under/as part of the deep soil zone.*

*Objective 4V-3
Flood management systems are integrated into site design*

- *Complies*
- *Refer to the stormwater drawings for further information.*

4X Building Maintenance [p.133]

*Objective 4X-1
Building design detail provides protection from weathering*

- *Complies*
- *Building materials are selected to withstand the demands of the environment and to weather gracefully.*
- *Building materials will be carefully detailed at construction stage to limit wear and tear.*

Objective 4X-2

Systems and access enable ease of maintenance

- *Complies*
- *Suitable access for cleaning is provided from the public domain or appropriately controlled roof access.*

Objective 4X-3

Material selection reduces ongoing maintenance costs

- *Complies*
- *The use of applied finishes is minimised in the development.*
- *Material selection is appropriate for the local climate conditions and have been selected to reduce the need for maintenance.*

PART 5

CRIME PREVENTION

Safety and security principles

The design of the building and associated public and communal spaces have been considered by observing the principles outlined in the NSW Police Service's 'Crime Prevention Through Environmental Design' (CPTED), to deter opportunities for criminal behaviour and to make a safer place for the community. Means of achieving these objectives and meeting the prescribed principles are outline below:

5.1 Surveillance

Placing people, activities and physical features in ways that maximises the ability to see what is happening in an area discourages anti-social behaviour, as perpetrators do not want to be seen.

Principles

Clear sightlines between public and private places.

- *The private spaces of the proposed development, particularly the apartments, have clear sightlines with the street and public domain areas. Balconies and windows to habitable rooms face the street. This will promote casual surveillance and minimise crime risk.*

Effective lighting of public places.

- *The proposal will include appropriate lighting at street level and in all public areas of the building as well as the communal area on levels 4 and 5 mitigate crime and provide maximum safety.*

Landscaping that makes places attractive, but does not provide offenders with a place to hide or entrap victims.

- *The proposal includes a communal landscaped area. The design of the building and the landscaped spaces has been focused to create attractive areas with high amenity and to ensure that casual surveillance provides a safe environment through clear sightlines,*

5.2 Access control

The use of fences, security devices and locks to restrict access, increases the effort required to commit an offence and therefore reduces the potential for it to happen. Safety and security principles

Principles

Clear sightlines between public and private places.

- *The public and private domain areas that surround the site at ground level are designed to guide pedestrians around the site. The proposal does not contain any 'stray' paths.*

Effective lighting of public places.

- *The communal area will encourage people into this space and will provide good amenity with good casual surveillance. This will be achieved through attractive landscaping and clear sightlines from private spaces to promote passive surveillance*

Landscaping that makes places attractive, but does not provide offenders with a place to hide or entrap victims.

- *Appropriate physical barriers will be put in place to all entrances of the building and site. The carpark and loading area will be provided with panel lift door and boom gate for security. The lobby will be accessible only to residents through the use of a secured access system like swipe cards.*

5.3 Ownership

Areas that are well protected and look as if they are owned and cared for, gives an impression that it is harder to conduct anti- social behaviour. Cared for areas also reduce the level of fear within the community.

Principles

Design that encourages people to gather in public space and to feel some responsibility for its use and condition

- *The carefully designed Ground level landscaping and communal open spaces that invites visitors and residents to gather.*
- *The breakout spaces as detailed in the landscape plans provide nature play areas, kitchen gardens, outdoor seating and open lawn areas for various activities.*
- *Refer to Landscape Plans for details.*

Design with clear transitions and boundaries between public and private space

- *All areas at ground level will have clear delineation between public and private space through the use of level differences, fences and landscaping. The development has been designed to communicate effective space management.*

5.4 Maintenance

Spaces that are well maintained and where any evidence of anti-social behaviour is promptly removed, reduces levels of satisfaction for those performing anti-social activities and reduces fear in the community.

Principles

Space management strategies include:

- Activity coordination;*
 - Site cleanliness;*
 - Rapid repair of vandalism and graffiti;*
 - The replacement of burned out pedestrian and car*
 - Street lighting; and*
 - The removal or refurbishment of decayed physical elements.*
- The communal and public areas of the site provide for various types of activities with good casual surveillance;*
 - The site will be maintained by various contractors who will form part of the building management regime set up by the owner’s association.*

Design Controls for Residential Flat Buildings

The following design principles adhere to the prescribed ‘Privacy and Security’ section of Residential flat buildings and Mixed-use development as outlined in Part 5 of the Auburn Development Control Plan 2010. The proposed development meets the objectives of the DCP through specific design elements.

Design Elements

Comment

Natural Surveillance

Objectives

- To encourage natural surveillance from and to surrounding land uses*
 - To encourage natural surveillance by encouraging legitimate land use*
 - To provide clear sightlines for pedestrian movement*
- Suitable visibility is provided to high risk areas, such as entries and stairs. The Lobby to the building is clearly located along the western boundary providing for a consistent identification of entries;*
 - Paths around the buildings are designed to provide for clear sightlines;*
 - Natural surveillance is maximised through the use of permeable building materials where required, without compromising privacy to private spaces.*

Design Elements

Comment

Lighting

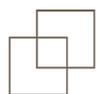
Objectives

- *To provide appropriate lighting for activities after dark*
- *To encourage the use of appropriate light fixtures*
- *To encourage the appropriate location of lighting*

D3- High walls which obstruct surveillance are not permitted.

D4- The front door of a residential flat building shall be visible from the street.

- *Windows and balconies are oriented towards public spaces to promote passive surveillance to pedestrian areas, building entries*
- *Mailboxes are located next to the residential entry for increased security and to reduce the risk of vandalism and theft;*
- *Security lighting will be installed throughout the building and maintained by Strata under a maintenance agreement.*
- *All lighting will be designed to meet relevant Australian Standards, including AS1158, AS1680 and AS2890;*
- *Lighting design will take into consideration the location and the use of individual spaces to allow for good visibility and to minimise shadows;*
- *A variety of lighting sources will be provided to provide varied lighting to work with the building and landscape design whilst providing appropriate lighting levels;*
- *Lighting of communal and public areas will be powered by renewable solar energy to reduce maintenance costs to residents and to promote site wide sustainable practices;*
- *Selection of lighting fixtures will take into account the life cycle and efficiency of light fittings*
- *Surveillance and signage will not be obstructed by landscaping or built structures.*
- *Graded planting will be provided to increase visibility through open spaces;*
- *Suitable visibility is provided to high risk areas, such as entries and stairs.*
- *Residential lobbies have an indentation on the ground floor to be clearly located along Lethbridge & Evan street providing for a consistent identification of entries;*
- *Proposed paths around the buildings are designed to provide for clear sightlines;*



Design Elements

Comment

Signage

Objectives

- *To provide clear and readily available signage*
- *To provide signage in appropriate locations*

- *Clear and accessible signage will be provided throughout the development to assist in way-finding;*
- *The future design of signage will take into account:*
- *Providing sufficient information for residents and visitors for wayfinding and to identify available services and amenities across the site as well as building entries;*
- *Sufficient illumination is provided;*
- *High visibility locations;*
- *Safe routes are identified;*
- *Legibility;*
- *Sufficient lighting is provided;*
- *Signs are not obstructed by landscaping or built structures;*
- *Incorporation of Barille where appropriate*

Landscaping

Objectives

- *Create aesthetically pleasing but safe environments*
- *Create easy to maintain and vandal resistant areas*
- *Reinforce natural surveillance and sightlines*

- *The design of the landscaped areas:*
- *Provide graded planting for increased visibility through open spaces;*
- *Use plant selection and locate planting to deter short cuts to restricted areas;*
- *Level differences, balustrades and fencing and planting are used where appropriate to separate publicly accessible and communal / plant space;*
- *The design of landscaped areas has considered the following issues:*
- *Deter Anti social behaviour, eg, graffiti;*
- *Promoting natural surveillance;*
- *Selection of plants for increased survival and growth rates.*

Design Elements

Comment

Land Use

Objectives

- *To promote natural surveillance and minimize illegitimate activities*
- *To create a mix of activities which will result in greater level of natural surveillance around the clock*

- *A range of amenity uses is proposed, through the provision of the open area, to support day-night activities and to encourage longer passive surveillance hours.*
- *The proposed scale and range of uses is appropriate for the future character of the precinct*

Building Design

Objectives

- *To integrate public buildings with public space*
- *To use buildings to support natural surveillance*
- *To reduce vandalism and graffiti*
- *To reduce safety problems*

- *The design of the building, has been developed to:*
- *Ensure that all entrances and exits are clearly visible from the street and are secured.*
- *Minimise design features that create entrapment spaces;*
- *Minimise blank external walls;*
- *Ensure that landscaping has been designed for intended uses and planting does not allow for anti-social behaviour, eg, by providing hiding spaces;*
- *Ensure that building envelope addresses the street frontage:*
- *All public spaces are over-looked by apartments to promote natural surveillance.*

Design Elements

Comment

Entrapment

Objectives

- *To reduce the risk of attack by hidden persons*
- *To eliminate the possibility of entrapment*
- *To ensure the suitable location of facilities*

The design of the building has been developed to:

- *Provide clear sightlines in public and communal spaces and through the proposed vehicular and pedestrian links;*
- *Communal, private spaces and carparks will be secured through fences and gates suitable for their use;*
- *Public and communal spaces are designed to have multiple access points to promote permeability through the site.*
- *High risk facilities (eg, communal amenities) have natural surveillance provided by the apartments and commercial units.*

Maintenance

Objectives

- *To ensure regular maintenance and repairs are undertaken*
- *To discourage graffiti and vandalism*
- *To install features that are vandal resistant*

- *A maintenance program for all public and communal spaces will be developed to ensure that all spaces will be well maintained. This is consistent with the Safer By Design principles to keep spaces well maintained and to provide a “cared for” environment. Maintained spaces reduce fear in the community and reduces the level of satisfaction for those deliberately performing anti-social activities.*

