



SHOWGROUND PRECINCT EAST

3 ANDALUSIAN WAY, CASTLE HILL



DESIGN EXCELLENCE ADDENDUM REPORT

STATE SIGNIFICANT DEVELOPMENT APPLICATION

AUGUST 2024



1 | Addendum Report

This Addendum Report has been prepared to the Design Excellence Report prepared by Deicorp dated December 2023. The purpose of this report is to provide an overview of the second State Design Review Panel (SDRP) held on 5th June 2024 and provide a response to the matters raised by the members.

2 | Second State Design Review Panel Meeting

2.1 Overview of Meeting

During the assessment of the state significant development application (SSDA), a second review was undertaken by the SDRP on 5th June 2024.

The SDRP comprised the following members:

- Emma Kirkham (Chair)
- Tony Caro
- Peter St Clair
- Nicole Leuning
- Guy Sturt

The design team delivered a presentation with the content as follows:

- Background of site including location and planning history
- Planning context
- Hills Showground Station Precinct Urban Design Guidelines (UDG)
- Design methodology
- Response to previous SDRP comments
- Design excellence peer review by Bob Nation
- Architectural plans of Buildings D and E
- Architectural plans of Building A, B and C

Written feedback was issued by the Government Architect NSW (GANSW).

The following items were supported:

- Redistribution of height across the precinct, increasing visual interest and skyline diversity
 - Adoption of a coherent vision across the precinct, with complementary materials and architectural rhythm
 - Increased use of terrace house typologies along the ground plane, improving the relationship with the streetscape and surrounding low-scaled context
 - Incorporation of communal gardens within common areas, referencing the 'Garden Shire' heritage and fostering a greater sense of community
 - Adjustments to massing to increase building articulation and enhance the precinct response to the wider Showgrounds area
 - Articulation of lobbies to offer visual amenity to the streetscape, particularly in Building B
 - Strategy for achieving a climate positive project
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Please find below a summary of detailed response prepared by the project team to address the items raised in the SDRP letter dated 16th June 2024.

SDRP Comment	Response
Connecting with Country	
The ongoing engagement with Traditional Custodians and inclusion of a cultural consultant within the design team is commended. However, the scope of the design response to Country appears generally limited to the publicly accessible pedestrian link between Buildings D2 and E1. Embedding the emerging understanding of Country can inform richer and more place responsive design solutions throughout the precinct.	
1. Further develop the publicly accessible pedestrian link between Building D2 and E1: a. Explore further opportunities to reference the nearby Cattai Creek. b. Demonstrate how the link connects visually and/or physically across the precinct and on to adjoining sites, specifically the Doran Drive Precinct.	Response – Charlie Robinson, Director at Land and Form (RLA 5898) & Lotti Wilkinson, Head of Planning at Deicorp The design development of the project has evolved with careful consideration and recognition to the importance of the First Nations historic and ongoing care of Country. As discussed in the Connecting with Country Report submitted with the SSDA, indigenous artists Uncle Danny Eastwood and Mr Jamie Eastwood (Darug) were engaged by Deicorp to include the design input from Indigenous Aboriginal communities encompasses a rich tapestry of knowledge, traditions, and contemporary innovations to deliver a public art strategy that integrates Connection to Country with the design of the development. Community workshops and advice from Danny Eastwood and Jamie Eastwood identified opportunities for Connecting with Country through public art and landscape within the Precinct. The following themes were identified and have been incorporated into the proposal: • Cattai Creek • Native Birds (Binyang) Dreaming Stories • Bediagal (Darug) Language • Native Flora and Fauna
2. Demonstrate how the aspiration to embrace the values of Country might inform opportunities to restore Country, such as maximising retention of established vegetation, pursuing a 'light touch' on the landscape and reinvigorating the landscape for all kin.	These are further described below. <u>Cattai Creek</u> Cattai Creek has a deep historical significance and cultural value to the Bediagal (Darug) people. The creek is a location where many Aboriginal artefacts have been recorded. The Creek was key to everyday life of Bediagal people providing fresh water, food, natural resources and used as a camp site and place for spiritual ceremonies.
3. Demonstrate how Country has enriched the design response and will fulfil Deicorp's ambition to elevate and raise awareness of the stories of the Bediagal people of the Darug Nation.	Cattai Creek flows into the Hawkesbury River and is named after the local Aboriginal Clan. For Indigenous people, Cattai Creek is an intricate part of the landscape that holds vast social, cultural and economic importance.

The local water ways of the Hills Shire provided a natural food resource for the Bediagal people who inhabited these lands. Cattai Creek was a popular waterway used to catch fish and the riparian corridors allowed for the harvesting of native plants. Knowledge of these waterways to Bediagal people allowed for flourishing cultural practices underpinned by the abundance of natural resources and amenity. Sustainability is a fundamental principle of indigenous Aboriginal architecture and design.

The shape of the proposed publicly accessible link represents the creek having a deep spiritual and cultural connection to the locality and the First Nation People. It is an expression of the natural resources significant within indigenous culture. Sustainable material and a welcoming ground plane are proposed to celebrate the Indigenous culture.



Figure 1: Illustrative design of Cattai Creek Walk (Source: Land and Form)

Native Birds (Binyang) Dreaming Stories

The Dreaming provides an indigenous understanding of the world and its creation, which has been passed down the generations through storytelling, art, song and dance. The Dreaming shares beliefs that are integral to Aboriginal connection with country, spiritual ceremonies and history. The Dreaming incorporates stories which outline the fabric of creation, establish community ethics and form the basis Aboriginal spirituality. Design approach placed a greater emphasis on honoring the traditional custodians of the land by embedding cultural narratives and for younger generation to learn the Indigenous local language.

The curatorial team has implemented local Indigenous bird dreaming stories, which are the main content for the public art within in the publicly accessible link between Buildings D2 and E1. The publicly accessible link and art installation will include indigenous language bird names, totems and design throughout the pathway that represents Cattai Creek.

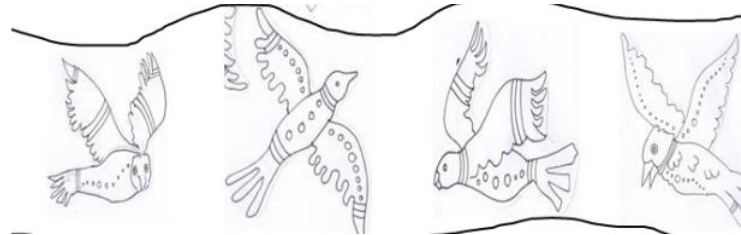


Figure 2: Artwork of Native Birds (Binyang) Dreaming Stories (Source: Uncle Danny Eastwood and Mr Jamie Eastwood)

Bediagal (Darug) Language

The community workshops and advice from Uncle Danny Eastwood identified a link between Indigenous identity and traditional language. Through listening and understanding it was learned that embedding Darug language artistically into public space, reinforces Indigenous cultural connection with country. In Aboriginal culture, by speaking the language on country, you awaken country and its innate spirituality. The embedding of Darug language protects Aboriginal cultural heritage. By creating an artwork using native language is a gateway to honour the First Nation People and language through the art.

Native Flora and Fauna

The outcome of community workshops lead by Uncle Danny Eastwood demonstrates that the knowledge gained from learning from community and country can be deepened by immersion and exposure to native flora which establish Aboriginal traditions, customs and beliefs. This concept is embraced through the Public Art approved within the Precinct East Park by artist Christina Waterson – Orchid of Hope.

The proposed landscape design proposed across the Precinct includes locally sourced sandstone, native vegetation seen in the Cattai Creek Riparian corridor including Eucalyptus Robusta, Ango Florbuna, Eucalyptus Moluccana, Eucalyptus Tereticornis, and Eucalyptus Crebra and an environment which supports the flourishing of the Black Cockatoo and other native Fauna.

The opportunities draw on Care for Country principles by re-establishing fragmented bushland through use of local vegetation communities within the proposed landscape design.



Figure 3: Indicative Landscape Plan (Source: Land and Form)

Public Art Installation

The proposed publicly accessible pedestrian link features native plants, meandering along the form of Cattai Creek. The footpath will be engraved with the Bediagal (Durag) language, telling the native bird (Binyang) Dreaming stories. The native flora, landscaping and Dream Stories create an environment that reinforces Connecting with Country.

Landscape Plan

The proposed landscaping throughout Showground Precinct East continues the Connecting with Country themes and inspiration identified during community workshops and in collaboration with Elder Danny Eastwood.

Connecting with Country is reinforced through the extensive interconnected green space network across the Precinct providing a physical and spiritual connection to Cattai Creek. The green spaces are embellished with native planting and the publicly accessible link is engraved with indigenous words, telling the native bird dreaming stories to create an immersive experience that awakens the senses and convey a deeper understanding of country.

Community Design Feedback

Following workshops with the local indigenous community groups led by Uncle Danny and Jamie Eastwood the proposed development, landscape plans and Connecting with Country framework was presented to the local indigenous groups as part of the ongoing consultation process.

Feedback identified that it was important to the local indigenous community that the scheme incorporates Native Cumberland Woodland species including Eucalyptus Moluccana, Eucalyptus Tereticornis, and Eucalyptus Crebra. It was requested that the landscape plan reinforces the theme of Cattai Creek with a fluid and interpretive paving pattern from locally sourced sandstone.

Overall, the local indigenous communities were strongly appreciative that these requests have been incorporated into the Showground Precinct East landscape plan. The design concept is considered to provide an understanding of cultural, spiritual and ecological significance through preservation of culture and harmonious integration of Aboriginal Art within the development site.

Site Strategy and Landscape

The position of the site, on a ridge above the historic Hills Showground offers an opportunity to contribute significant public amenity, suitable for the 'Garden Shire'. While considerable work has been done to embed the design into this context, further work is needed to achieve the project vision.

4. Maximise deep soil and permeable surfaces, particularly for public spaces, to ensure connected soil networks across the site and to adjoining areas. Consider soil quality and health throughout design development:

- c. Provide dimensioned drawings of deep soil, including basement car-parking layouts.
- d. Explore reconfiguring the basements beneath the publicly accessible pedestrian link to deliver genuine deep soil, connected to the wider soil structure.
- e. Where on structure, create generous soil volumes to ensure meaningful ecological outcomes and canopy can be achieved.

Response - Charlie Robinson, Director at Land and Form (RLA 5898) & Lotti Wilkinson, Head of Planning at Deicorp

- a. Deep soil setbacks are provided in accordance with the UDG. Please refer to the Architectural Plans prepared by Turner (**Appendix 1**) and Group GSA (**Appendix 3**) which include landscape calculations and indicate basement extents.
- b. A key design move has been the consolidation of the two separate car park entries and loading docks envisaged in the UDG for Buildings D and E into a single entry/exit point located on the sub-divided road. This has removed the need for driveways and hard landscaping at the western end of the publicly accessible pedestrian link which results in a significantly enhanced urban design outcome.



Figure 4: Proposed Landscape Plan showing publicly accessible pedestrian link with a blue arrow and location of vehicular access to the consolidated basement shown in a red circle, to the north of the link (Source: Land and Form)

The consolidated car park of Buildings D and E sits directly under the footprint of the buildings overhead and the publicly accessible pedestrian link. The extent of car park has generous setbacks from all site boundaries to allow for significant deep soil area above, which exceeds the ADG requirements.

Within the publicly accessible pedestrian link, the proposal incorporates a minimum of 2m set down of the basement slab. This allows for soil depth sufficient for large tree types and quality soft landscaping. This set down also allows for a flush condition within the public domain, free of mounding and low retaining walls, for a more open and permeable streetscape.

Accompanying this application is a report prepared by SELS Australia (**Appendix 36**) which confirms the soil specifications within the pedestrian link are sufficient for the proposed mass planting. A further report has been prepared by SELS Australia (**Appendix 37**) which endorses the proposed planting schedule in the pedestrian link.

The location of the basement underneath the new pedestrian link is supported.

- c. A 2m (minimum) deep soil zone is provided to the through site link to comfortably support native Cumberland woodland species including *Eucalyptus moluccana*, *Eucalyptus tereticornis*, and *Eucalyptus crebra*. The soil depths are excess of the Apartment Design Guidelines (ADG).

5. The ambitious tree canopy target of 40% is supported. Provide detailed drawings demonstrating how and where this will be achieved, including analysis as to when landscaping will mature to attain this figure.

Response - Charlie Robinson, Director at Land and Form (RLA 5898) & Lotti Wilkinson, Head of Planning at Deicorp

The Landscape Plans prepared by Land and Form (**Appendix 30**) indicate 40% tree canopy is achieved at the site equating to 11,460sqm of the total site area of 28,744sqm. This includes 9,120sqm at ground floor and 2,340sqm at rooftop level. An extract of the ground floor plan is provided below which indicates the proposed tree canopy in orange/brown.



Figure 5: Proposed tree canopy coverage at ground floor (Source: Land and Form)

6. Demonstrate how the retention of established trees have been maximised. It was noted during the session that several large trees outside of building envelopes are to be removed, including within the proposed park and along the Carrington Road and Showground Road frontages.

Response - Charlie Robinson, Director at Land and Form (RLA 5898) & Lotti Wilkinson, Head of Planning at Deicorp

Previous development consents (988/2022/JPZ and 304/2020/LA) granted by the Hills Shire Council permit the removal of all trees in Lot 4 and most trees in Lot 5 (43 trees in total). An additional seven (7) trees require removal to accommodate the current development proposal. Unfortunately, the removal of these trees is unavoidable due to their location within the approved Concept Plan building footprints. Please note, this application does not include the removal of any trees located within Precinct East Park, noting consent for this park has been approved separately to this SSDA by the Hills Shire Council.

To offset the loss of trees at the site, the proposal will significantly enhance tree canopy with the provision of 280 new trees located within the site's extensive network of deep soil zones and ground floor and rooftop communal open spaces. Over 70% of new vegetation will comprise native species to support local biodiversity and reflect the character of the local landscape.

7. Explore adjusting building envelopes to increase solar access to the communal courtyards during the winter. If increased solar access cannot be achieved, demonstrate how this highly seasonal environment can support a lush landscape and a variety of uses throughout the year for residents.

Response - Charlie Robinson, Director at Land and Form (RLA 5898) & Lotti Wilkinson, Head of Planning at Deicorp

A compliant quantum of solar access is achieved to the communal open spaces as required by the ADG. Specifically, for Buildings A, B and C 66.9% of the principle communal open space (equating to 1,799sqm out of a total 2,691sqm) achieves two hours of solar at midwinter and for Buildings D and E, 51.1% of the principle communal open space similarly achieves this (equating to 1,529sqm out of a total 2,992.5sqm). This is demonstrated in the figure below.

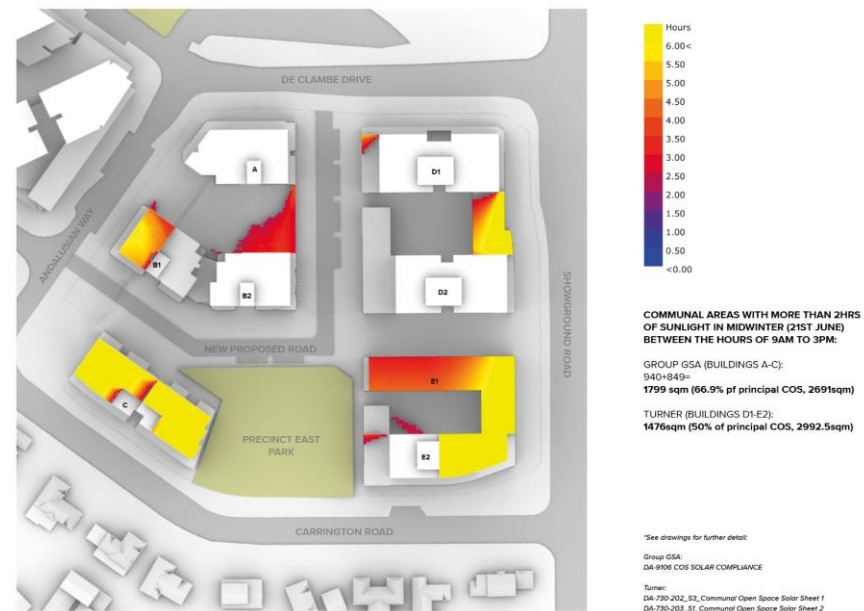


Figure 6: Diagram demonstrating the communal open space areas which receive in excess of two hours of solar access at midwinter (Source: Turner Studio)

The ground floor communal open spaces are generously landscaped with extensive soil depths and tree canopy coverage. The proposed program of communal open space has been designed for a variety of uses including play areas, open lawn and passive retreat spaces. The rooftop spaces are designed to be a series of active outdoor rooms with pergola and expansive district views, providing a variety of uses throughout the year for residents. The planting plans have responded to the solar requirements and microclimates.

8. Provide greater detail on the community gardens, their locations and what species can be supported (noting many of the communal spaces receive minimal sunlight). This should include greater detail on how these spaces tie the development into the Showgrounds Precinct and its historic role in agriculture.

Response - Charlie Robinson, Director at Land and Form (RLA 5898)

Community gardens have been added to rooftops to utilise maximum solar aspect. Compost bins and storage tanks are provided within communal open spaces to help manage waste and improve soil quality in the communal open spaces. These are detailed on the landscape plans provided by Land and Form (**Appendix 30**).

Edible plantings have been added in the planting schedule and landscape plans including lemon, orange and various citrus and olive trees to reflect the site's agricultural context and history.

9. Ensure the building entrances and proposed public domain are all congruent with surrounding public domain works by others, particularly the internal streets (Lot 1) and park (Lot 2).

Response – Charlie Robinson, Director at Land and Form (RLA 5898)

The building entrances for all buildings have been carefully designed to ensure they are congruent with the surrounding public domain including adjoining footpaths, internal streets and the park. Alignment of the civil levels of the approved public domain and all building entries has been carefully co-ordinated in the detailed design of the buildings.

Clear, open and legible building entrances have been proposed to respond to previous SDRP comments. All building entrances to the central communal open spaces are on the ground level and are legible through generous openings, clear articulation through deep soil and framed native plantings availing of the generous deep soil setbacks to buildings. Universal access is provided to all building lobbies through provision of DDA ramps and steps.

Response –Shane O Donnell, Associate Director at Group GSA

Within Lots 3 and 4 the car park and loading dock entry for Buildings A, B and C has been consolidated into a single entry/exit point which has reduced potential traffic movement conflicts within the new link road. The loading dock, located within the lower ground floor basement of Building B, is centrally located for improved access for Building A and C residents. At the junction with the public domain, attention been given to ensure flood levels and access requirements are adhered to.

A large centrally located entry lobby within Building B has reduced further cross over between pedestrians and vehicular access while providing direct access to the central courtyard beyond, located between Buildings A and



B. Sightlines from the lobby extend into the communal open space courtyard to the north and into the public domain on the south along new road.

Within Building A, the main lobby with level access is centrally located along De Clambe Drive, providing direct views to the historic Showgrounds to the north and the ground floor communal courtyard to the south.

Building C is accessed via two lobbies from the new internal road where the public domain rises steeply. Both entrances have street access although enter on different levels. On the eastern side of Building C, the entrance is nestled and integrated with the public park and again has direct sightlines through to Carrington Road. Supplementary street access to Carrington Road has been added to each lobby on ground, with these secondary access points activating the streetscape and further enhancing the visual connection from inside to outside.

All entrances are signalled by feature awnings to announce a sense of arrival and purpose. Embellished with strategic lighting and landscaping, the connection from Lot 3 & 4 into the public domain is clear and inviting.

Response – Tiffany Kuo, Senior Project Designer at Turner Studio

The consolidation of car park entries and loading docks for Buildings D and E into a single entry/exit point on the subdivided road has effectively removed traffic movement conflicts at the western end of the publicly accessible pedestrian link. The loading dock, located within the basement, ensures trucks can safely enter and exit the site in a forward direction. Strategically placed lobby entries at prominent corners offer direct street addresses and are further highlighted with feature awnings for intuitive and logical wayfinding.

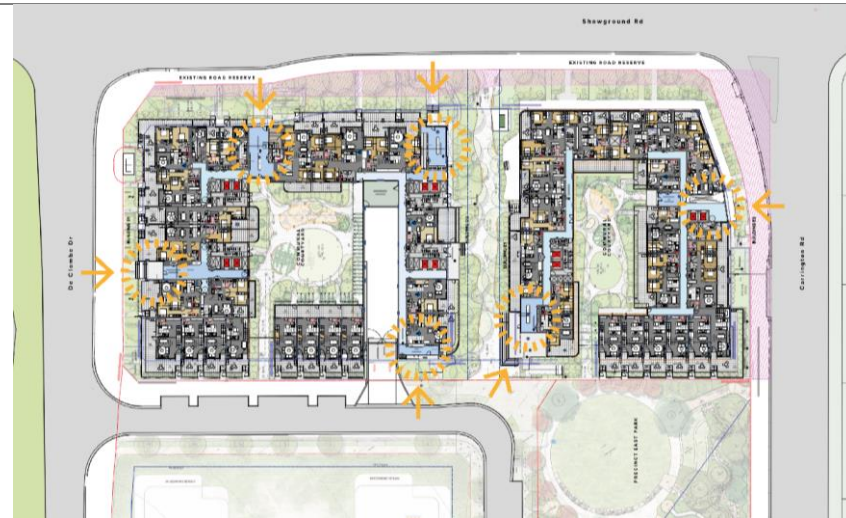


Figure 7: Lobby locations for Buildings D & E shown in orange (Source: Turner Studio)

This design has led to a highly activated public domain and streetscape, particularly at the northwest corner of Building E1, which serves as a central junction between the new public park and the publicly accessible pedestrian link. The generous residential entry lobby, direct sightlines into the central communal courtyard and improved street edge activation create a safe and welcoming environment for pedestrians and cyclists at all times of day.

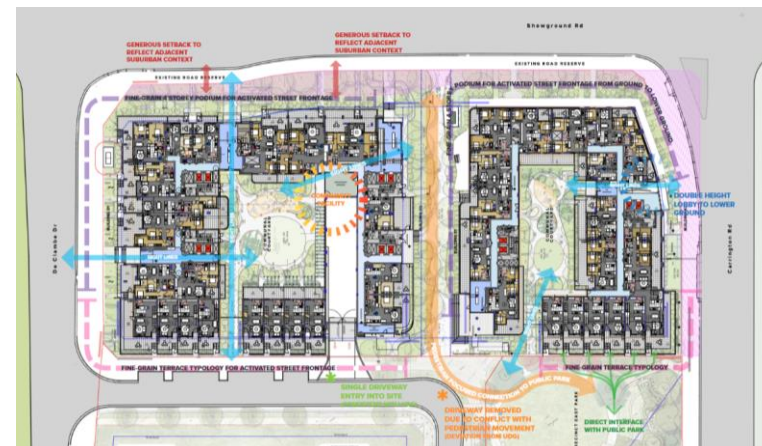


Figure 8: Lobby locations with street context overlay (Source: Turner Studio)

Additionally, the western edge of Buildings D and E, which interfaces directly with the internal road and Precinct East Park, is characterised by three storey family friendly homes with private open space addressing the street edge and direct access from the street via secure gates. This adds to the human scale of the streetscape, suburban character of family home typologies and opportunities for passive surveillance which contributes to the overall safety of the public domain.

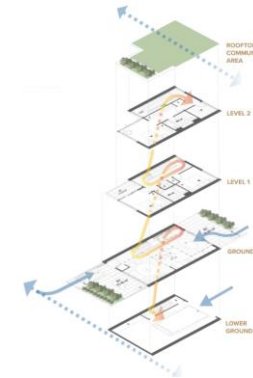


Figure 9: Townhouse axonometric diagram (Source: Turner)



Figure 10: CGI View looking down Showground Road

Architecture

Considerable work has been undertaken since the first SDRP, including varied height, increased articulation, and an improved materials palette. The two architectural teams have worked together to ensure their different design responses relate to one another within the precinct. Further work is needed to improve the relationship to the local context and microclimate of the Castle Hill area.

10. Explore opportunities to increase affordable housing within the precinct. This should include the types of affordable housing to be provided and how these can meet the needs of the Castle Hill community. The current target of 5% affordable housing for a development of this size is very modest.

Response – Lotti Wilkinson, Head of Planning at Deicorp

The proposal provides 5% affordable housing equating to 44 apartments which is consistent with the UDG and the Concept Approval (SSD 9653) which requires a minimum 5% of all residential dwellings provided as affordable housing (for a minimum of 10 years),

All affordable housing units are located in Building C. The proposed unit mix for the 44 affordable apartments includes:

- 11 x One bedroom apartments
- 12 x Two bedroom apartments
- 11 x Three bedroom apartments

11. Explore opportunities for providing a greater diversity of dwelling types, such as three-bedroom apartments that cater to families. This greater variety in typology can be expressed with increased range of scale, character, and form across buildings and different façades.

Response – Lotti Wilkinson, Head of Planning at Deicorp

The UDG sets out prescriptive controls relating to apartment mix. The proposed mix is compliant with the UDG in providing the following mix:

- One bedroom – 16% equating to 147 dwellings
- Two bedroom – 60% equating to 549 dwellings
- Three bedroom – 24% equating to 221 dwellings

Within these dwelling types, there is a range of size and layouts that offer a high level of choice and amenity. Most dwellings allow for either a dedicated study or media space, to facilitate working from home and studying. Storage has been carefully integrated into the apartment plans, with an additional storage cage provided for every apartment in the basement car park.

The proposal provides for 14 three storey townhouses along the western edge of Buildings D and E facing into the new internal roadway and Precinct East Park which will cater for families.

12. Ensure that the objectives of the Apartment Design Guide (ADG) have been optimised across all buildings:

- Demonstrate that the use of plenums within Building E1 can successfully achieve cross ventilation.
- Explore reconfiguring apartment layouts to maximise solar access to living rooms, particularly in Building D2.

Response – Lotti Wilkinson, Head of Planning at Deicorp

- The lodged scheme included 29 apartments with horizontal plenums in Building E. The location and orientation of apartments within Building E has been amended to reduce the reliance of plenums. Ten apartments within Building E are now reliant on horizontal plenums for natural cross-ventilation. Refer to the Natural Ventilation Strategy prepared by Windtech (**Appendix 24**) for further information.

Response – Tiffany Kuo, Senior Project Designer at Turner Studio

- Apartment layouts have been reconfigured to create open and logical typologies with the intent of improving amenity which includes orientation to district views, increased cross ventilation where possible and solar access to living rooms, particularly in Buildings E1 and D2. Refer to the accompanying solar diagrams and sun-eye views included in the SSDA submission which demonstrates solar compliance (**Appendix 1**).



Figure 11: SSDA lodged scheme showing typical layout of Building E1 upper level (Source: Turner Studio)



Figure 12: Amended SSDA scheme showing revised typical layout of Building E1 upper level (Source: Turner Studio)

13. While changes to the lobbies have improved the interface in Building B, other changes have reduced the activation of the public realm and minimised sightlines through the lobbies into the landscaped courtyards. Explore opportunities to improve visibility and activation around these primary circulation points:

- Reconfigure the Communal Facility for Building D2 to restore the visual connection between the Communal Courtyard and publicly accessible pedestrian link that was evident in the first SDRP presentation.
- Restore the entrances to the two Building C lobbies from Carrington Road that were evident in the first SDRP presentation to improve activation of this streetscape.

Response – Tiffany Kuo, Senior Project Designer at Turner Studio

- The glazing extent in the indoor communal facility has been increased to maximise sight lines between the communal area, D2 lobby and the publicly accessible pedestrian link beyond. Refer to the figure below.

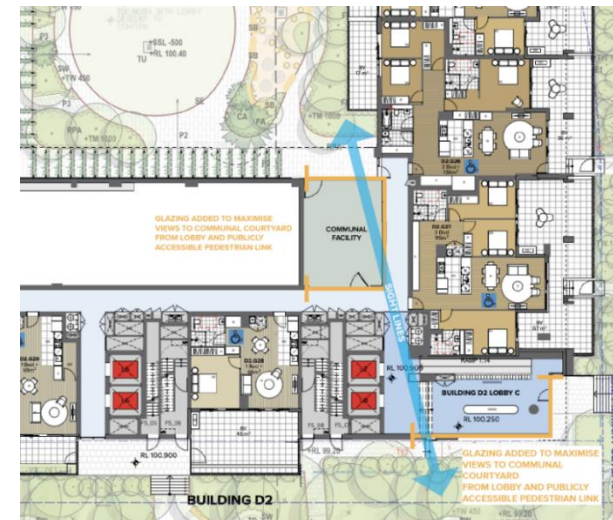


Figure 13: Reconfigured communal facility to restore the visual connection between the communal courtyard and publicly accessible pedestrian link (Source: Turner Studio)

Response – Shane O'Donnell, Associate Director at Group GSA

- a. The design of Building C has been amended to provide access from both ground floor lobbies to Carrington Road. Access and sightlines have been improved to create a greater sense of connectivity and choice of access for residents and visitors. The additional entries are provided within the site's 5m setback and have been designed in close collaboration with landscape architects Land and Form to ensure the stairs and access pathways are nestled within planters and trees.

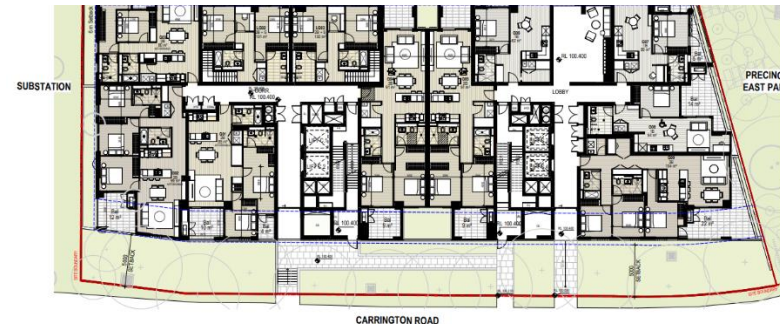


Figure 14: Ground floor plan showing building entries from Carrington Road (Source: Group GSA)

14. The refined materials palette and contrasting expression between the two sides of Building C are commended. However, further work is needed to harmonise the two disparate ends of the building:

- a. Explore utilising some common elements across the two sides of the building to improve their relationship, such as structural elements or consistent sun shading devices.

Response – Shane O'Donnell, Associate Director at Group GSA

The preference was to break the form and massing of building into two distinct towers, a light white mix of brick to the western tower and sand mix to the eastern tower. The use of brick offers a common dialogue between each tower although treated in various ways. An example of this is the use of brick slips on precast to both cores offering textured patterns and diversity within the massing of each tower.



Figure 15: CGI image showing view of Building C to Carrington Road (Source: Involve Studios)

Sustainability and Climate Change

The development of an action plan for delivering climate positivity is commended. However, further work is needed to incorporate environmental design into the buildings.

15. Effective sun shading still needs to be addressed, particularly along the northern and western facades of the buildings. Meaningful sun shading devices will greatly reduce summer heat gain and improve energy performance. Their design could also help increase façade articulation and provide greater variation across the different elevations.

Response - Tiffany Kuo, Senior Project Designer at Turner Studio

Integrating horizontal solar shading louvers along the northern and western facades of the buildings will help maintain apartments' thermal comfort levels. Additionally, this approach creates a dynamic facade typology and enhances the visual interest of the built form.

Refer to the elevations below indicating the location of additional solar shading screens on Buildings D2 and E2.

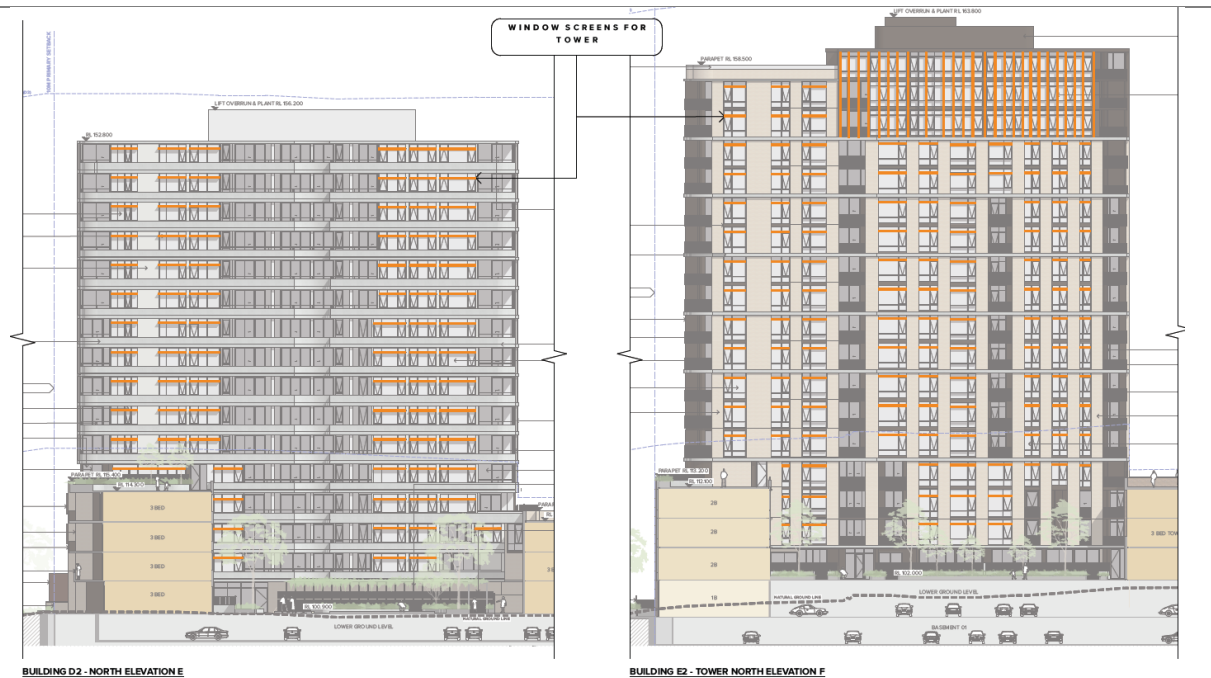


Figure 16: Window screens for solar shading located on Building D2 (left) and Building E2 (right) north elevation (Source: Turner Studio)

Response – Shane O’Donnell, Associate Director at Group GSA

Vertical sun-shading elements have been provided to all northwest facades and horizontal shading has been incorporated to both Building A and B facades. A 400mm deep sun hood extension has been proposed to achieve this protection.

In terms of compliance with the building envelopes, Building A complies with the proposed sun-shading adjustments however the sunhoods to Building B project approximately 150mm beyond the approved envelope (in tower only).

Building C’s northern façade does not require additional sun shading as confirmed by BASIX. The façade has limited glazing to the north with adequate infill panels and louvres complemented by recessed balconies.



BUILDING A



Figure 17: Building A facade (Source: Group GSA)

BUILDING B

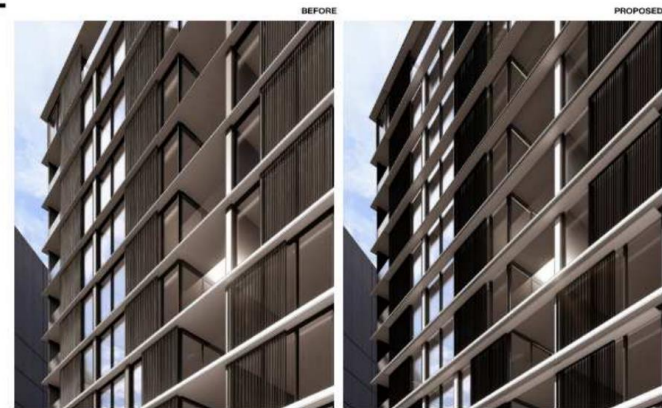


Figure 18: Building B facade (Source: Group GSA)



Figure 19: Northern facade of Building C (Source: Group GSA)

16. Ensure the proposed materials are selected for their durability, quality and maintenance. This could include different types of concrete (such as the lower carbon and paler ENVISIA) or tinted concrete, rather than painted finishes which can be difficult to maintain on taller buildings and require ongoing replacement.

Response – Shane O'Donnell, Associate Director at Group GSA

Buildings A and B utilise a similar approach to both buildings, with a distinct podium and tower language and selected materials for their longevity that will withstand all site conditions, including the interfaces with busy roads. A robust material masonry within the podiums has been selected. The materiality of the towers is generally dominated by floor to ceiling glass to take advantage of the views of the park.

Tower A with its northern location within the precinct, is supplemented by fine metal horizontal sun hoods, lighter coloured framing elements and white metal louvres to address the northern sun condition and to provide a higher degree of reflectivity. Most of these elements are proposed as prefinished metals, with only minor elements to have a paint finish.

Tower B, where higher reflectivity in material selection has a lower priority, has additional cladding elements proposed as prefinished dark metal panels, and metal louvres, along with the floor-to-ceiling glazing.



Figure 20: CGI of Building A (Source: Ivolve Studios)



Figure 21: CGI of Building B2 in foreground, with Building B1 to the lefthand side (Source: Ivolve Studios)

In relation to Building C, a palette of prefinished materials has been selected, with key materials including brick and/or precast with brick slips to provide a consistent masonry finish. Two tones of brick are provided with a white mix for the western tower and a sand mix for the eastern tower. A precast panel with brick slips is located on the core faces in the northern elevation enhanced with textured brick patterns adding more detail to this elevation.



Figure 22: CGI of eastern extent of Building C
(Source: Ivolve Studios)

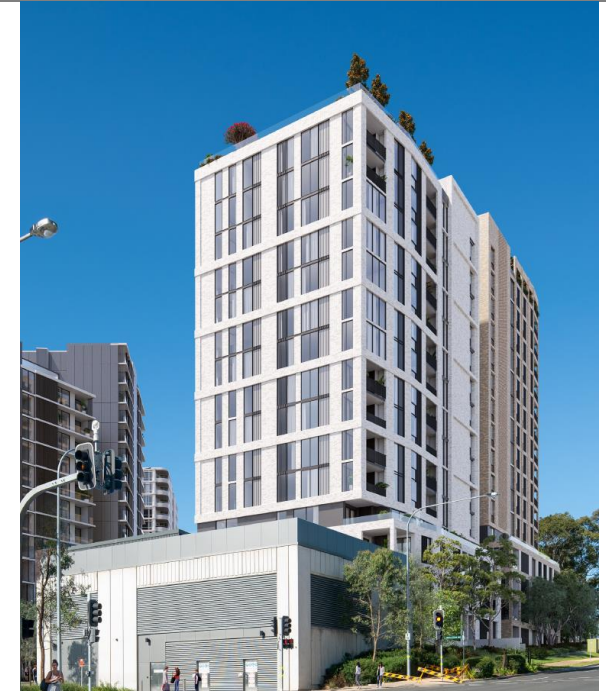


Figure 23: CGI of western extent of Building C
(Source: Ivolve Studios)

Response - Tiffany Kuo, Senior Project Designer at Turner Studio

Building D and E podium buildings champions the use of brick to draw reference to the surrounding suburban architecture. This high quality and low maintenance material brings colour and texture to the lower levels of the buildings and ensures the quality of the facades into the future. The predominantly brick material on the lower podium levels 'grounds' the building while the interval facade changes along the street edge to create playfulness and diversity.



Figure 24: CGI of Building D1 podium (Source: Ivolve Studios)



Figure 25: CGI of Building E2 podium (Source: Ivolve Studios)

The Building D1 and D2 towers above are more open in their façade design to the avail of the significant northern views over the adjacent Castle Hill Showground. Building D1 has a strong vertical emphasis, with two storey stepped brick piers captured by expressed slab edges that have a deep scalloped edge detail. Building D2 is characterised by a strong horizontal emphasis with natural finish concrete spandrels that create a highly graphic façade composition. The colour tones of the Building D1 and D2 towers are of light white and silvery hues, in contrast to the darker brick tones of the podium below and have minimal reliance on paint finish.



Figure 26: CGI of Building D1 tower (Source: Involve Studios)



Figure 27: CGI of Building D2 tower (Source: Involve Studios)

Building E1 has the greatest interface with the public domain through the proximity to the generously landscaped publicly accessible pedestrian link and the public park. As a point of difference to the collection of strong brick podium and slender towers above, Building E1 is envisaged as a pavilion-like building, with a natural concrete spandrel base and a darker material on the upper levels.



Figure 28: CGI of Building E1 from Showground Road (Source: Ivolve Studios)

Building E2 sits at a key corner at the junction of Carrington Road and Showground Road and uses brick as its predominant material to all levels as a response to vehicular noise generated. This use of brick is in recognition of the vernacular architecture of the surrounding suburban streets.



Figure 29: CGI of Building E2 tower (Source: Ivolve Studios)

Paint finishes have been minimised and isolated to lower levels. Across the proposed development, the predominant materials are brick and concrete for its durability and low-maintenance characteristics. Secondary material and finishes such as metal cladding and metal awning structures act as facade articulation.

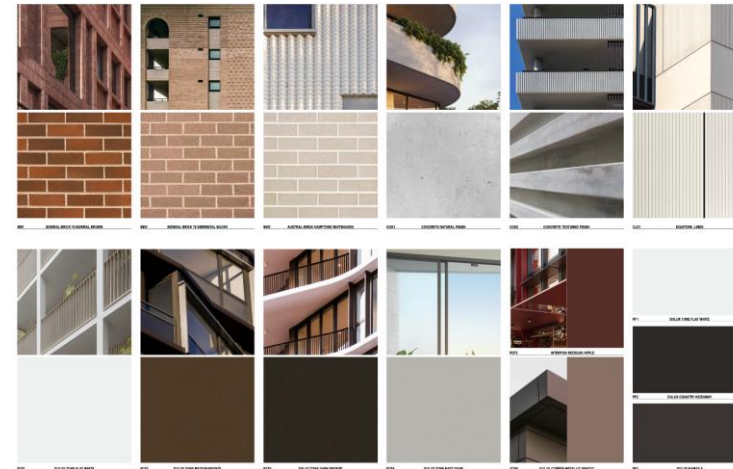


Figure 30: Proposed Materials and Finishes Board (Source: Turner Studio)

17. Demonstrate how the design strategy effectively responds to the microclimate of the Hills Shire, to create dwellings and public and communal spaces that are comfortable throughout the year.

Response – Lotti Wilkinson, Head of Planning at Deicorp

The following microclimate-specific design strategies have been employed as part of the design process:

Solar Access

Orientation – Apartments have been positioned to maximise northern exposure for winter sunlight. Where possible, apartment living spaces and primary glazing is provided to the north to ensure that apartments receive ample sunlight during cooler months.

Shading devices – External shading devices including vertical and horizontal shading devices are provided to reduce solar gain in summer.

Natural Ventilation

Cross ventilation – In accordance with the ADG, 60.9% of apartments (151 out of 248) on the first nine storeys of Buildings A, B and C and 60.48% of apartments (176 out of 291) on the first nine storeys of Buildings D and E achieve natural cross ventilation to create a comfortable indoor environment for residents.



Private Open Spaces

Private open space – In accordance with the ADG, all apartments are provided with appropriately sized private open space and balconies to enhance residential amenity and the indoor/outdoor lifestyle of residents.

Landscaping

Increased tree canopy – The proposal includes extensive deep soil zones and communal open spaces which enable the site to increase its current tree canopy coverage to further mitigate urban heat island effect and create comfortable spaces around the private and public domains. The proposal includes an additional 280 new trees to contribute to tree canopy coverage within the site.

Promoting biophilic design – The proposal includes 70% native planting and will promote biophilic design by creating extensive street tree canopy and rooftop gardens to contribute to local flora and fauna systems.

Communal open spaces – An extensive communal open space network is provided including approximately 3,400sqm of space at ground floor level. Communal open spaces receive adequate solar access as required by the ADG and the UDG and include extensive tree canopy and shading structures to provide relief during the hotter months.
