

PAGEWOOD GREEN STAGE 2 MASTER PLAN
PLANNING PROPOSAL

PEER REVIEW

8th November 2017



Prepared for Bayside Council by

hill thalis

ARCHITECTURE + URBAN PROJECTS PTY LTD

P: 92116276

E: philip.t@hillthalis.com.au

www.hillthalis.com.au

CONTENTS

1	Introduction
1.1	Site Attributes
1.2	Meriton Planning Proposal
1.3	Brief History of the Site
1.4	Evaluation of First Buildings on Site
2	Broader Context
2.1	Metropolitan Sydney
2.2	Urban Centres
2.3	The Metrics of Density
2.4	Comparable Renewal Sites
3	Site and Objectives
3.1	Design Principles
3.2	Response to Planning Proposal
4	Evaluation of the Proposal
4.1	Draft Council Proposal
4.2	Revised Meriton Proposal
4.3	Public Street Network
4.4	Public Open Space and Orientation
4.5	Historic and Character Elements
4.7	Urban Blocks
4.8	Distribution of Built Form - Lower
4.9	Distribution of Built Form - Upper
4.10	Massing and Bulk
4.11	Solar Access and Overshadowing
4.12	Site Elevations
5	Recommendations
5.1	Public Domain Recommendations
5.2	Built Form Recommendations
5.3	Peer Review Master Plan Recommendations

This report has been completed to assist Bayside Council with their Urban Design Assessment of Meriton's proposed redevelopment of the former British American Tobacco Australia (BATA) site at Pagewood.

The site is bound by Bunnerong Road, Heffron Road and Banks Avenue and Meriton Boulevard- immediately adjacent to a similarly proportioned and redeveloped site north of Westfield Eastgardens.

In July 2017 Hill Thalys was engaged by Bayside Council to assess Meriton's revised master plan for Pagewood Green Stage 2 (referred to in this document as "**Revised Proposal**"). This follows earlier work undertaken by Hill Thalys to produce a comprehensive Urban Design Study for the site in 2016.

This report will critique the merits of Meriton's Revised Proposal through graphic analysis and comparison with the previously completed 2016 Urban Design Study - referred to in this document as "**Draft Council Master Plan**" (prepared by Hill Thalys).

The following assessment details both the Revised Proposal (Meriton) and the Draft Council Master Plan and critically analyses the ability to provide a best practice urban structure and distribution of built form for the BATA site.

INTRODUCTION

1.1 SITE ATTRIBUTES

The site is located in the north-east corner of Pagewood, and is bounded by Bunnerong Road to the east, Heffron Road to the north, Banks Avenue and golf course to the west, and Westfield Drive and shopping centre to the south. A new street, Meriton Boulevard, has been constructed east west across the centre of the site. The part of the site to the south of Meriton Boulevard has already been rezoned, and the current Peer Review relates to the portion of the site to the north of Meriton Boulevard.

This large site is well located, and has the following attributes that would support a Planning Proposal to change its use, create a new public domain and allow more intensive developmet:

- Pagewood / Maroubra Junction are within a growing region with ready access to nearby centres;
- The site has reasonable access to public transport, principally buses. Despite contentions to the contrary by the applicant over several years, there remains at this time no publicly available confirmation of any superior public transport, such as Light Rail or Metro;
- The site is located in an established centre, which is adding high density residential to a major retail centre;
- Rezoning / Planning Proposals for such sites are generally compatible with the Draft District Plan by the GSC and Metropolitan Plan objectives for Sydney;
- The wider area has a reasonable proportion of open space, with potential additional connections to existing parks and for additional parklands;
- The site benefits from wide roads on both the northern and eastern sides, and a street edge to a golf course to the west;
- The site is of sufficient area to accommodate infill residential development complemented by community uses, of which there are some good examples across metropolitan Sydney;

Council have the vision to create a new vibrant mixed-use community, with a high quality public domain and good residential amenity.

1.2 MERITON PLANNING PROPOSAL

The key elements of Meriton's Planning Proposal are:

A change in the zoning from IN1 General Industrial and R3 Medium Density Residential to R4 High Density Residential;
A maximum floor space ratio (FSR) of 2.35:1; and
Maximum building heights across the subject site of part 28m and part 65m.

This site was formerly used for industrial purposes in the pre and post-war period, including car manufacturing and tobacco processing. With the shift of such industrial and manufacturing processes, the site has had a recent history of rezoning and now redevelopment.

The rezoning of the south part of the site was approved during protracted Section 34 Conference process in the Land and Environment Court of NSW prior to 2015.

Architectural Competitions for Blocks to the South of Meriton Boulevard

Since that time there have 4 architectural competitions for blocks within this approval.

The competitions have been held since 2015. Philip Thalís, a director of Hill Thalís, has been involved in judging 2 of these competitions (those experiences have informed subsequent urban design and architectural advice for the northern part of the site). At the conclusion of the judging of the first competition, Philip Thalís wrote to Council regarding the competition process and the controls for the southern blocks;

Drawing on our experiences of the competition, review of the planning controls and our previous experience advising the City of Sydney / CSPC on the Meriton's ACI site, we make the following initial suggestions aimed at improving the planning and design outcomes;

A Public Domain

In our extensive experience of such major projects, the full extent of the public domain should be dedicated to Council.

In our review of the ACI and other sites, we observed that 'public walkways' over private sites invariably had been gated, or otherwise impeded. Quasi forms of public access have a poor track record, and raise all sorts of dilemmas for body corporates, community title schemes as well as equity problems for people who are already paying Council rates, insurance, maintenance and liability issues.

It would be better if more streets allowed some through traffic, rather than being configured as cul de sacs or de facto driveways. Of course such streets should be low speed, with perhaps limited movements allowed at the site's perimeter (eg left in/ left out). This would reduce the effect of the site being an enclave, alien to the wider neighbourhood.

The landscaping of the public domain's parks and streets also needs to be given much more consideration. We suggest there should be a design competition of leading landscape architects, and that the brief should include WSUD best practice.

B Development Controls

We encourage Council and Meriton to explore a slight relaxation of the adopted development controls.

In particular the 0.5m scope for 'articulation' is far too tight, and clearly stymies genuine modulation of the massing. The controls tended to be a straight-jacket, that overly restricted the architects.

There could also be more scope to locally vary heights and setbacks.

We note that the building separations in the DCP do not meet either the old RFDC or the new ADG controls. Again more scope for variation would be helpful.

C Yield

Meriton have been granted a very high yield, with heights and FSR's greater than any in the Eastern Suburbs with the exception of certain parts of Bondi Junction. Therefore surely Meriton can easily give something back, such as dedicated public space, parks and playgrounds, off site public domain and infrastructure improvements and affordable housing provision.

This would be consistent with international contemporary best practice.

D Design Excellence

As a juror, I felt that the schemes lacked joy and imagination. This is going to be home for 480+ households and the largest building in Botany LGA. Its design matters, and in my estimation none of the schemes approached would could objectively be called design excellence, despite the architects' hard work and competence.

Meriton's target yield also seemed to give the architects limited scope to explore design improvements.

Council's Draft Master Plan (for part of the block to the North of Meriton Boulevard)

in 2016, Botany Council, subsequently amalgamated to form Bayside Council, commissioned Hill Thalís Architecture + Urban projects to prepare a draft Master Plan for the northern part of the site, that included some remnant industrial buildings and areas of mature trees. This Plan related to the part of the site to the north of Meriton Boulevard, and built on the experiences of the architectural competitions that had already been held (see above observations).

The draft Master Plan envisaged the following;

Public Domain

- a public street structure that related to the site's dominant geometry, historic alignments and the streets to the south and north;
- a dedicated, connective local street system, integrated with new public parks, to make the area more walkable, amenable and available to the wider community;
- additional public park areas to supplement the 8 000m2 Central Park on the south side of Meriton Boulevard;
- generous park verges to both Bunnerong Road and Heffron Road that retained the existing mature trees;

Community Uses

- various community uses distributed across the site to cater for the site and wider area's community, if possible reusing historic buildings on the site, or as new distinct public buildings located in relation to new parks;

Development

- distributed building heights of 4, 6 and 6.5, 9, 14 and 18 storeys to create diversity across the site, and while accommodating significant density, relieve aggregated bulk to the maximum extent possible;
- building articulation in all blocks to have a range of heights, open courtyards and areas of deep soil planting;
- reasonable retention of major elements of the historic fabric, in particular where they have architectural merit and are visible in the wider public domain;
- **the master Plan proposed two different overall yields; the preferred scheme had a gross FSR of 1.62:1, whereas a higher density of 1.8:1 could be supported if metro or light rail were planned to improve access to the site (it is noted that to date no plan has subsequently been adopted for either of these public transport initiatives, making the site reliant of existing limited bus services).**

1.4 EVALUATION OF THE FIRST BUILDINGS ON SITE

The first block (subject to the initial competition) is now nearing completion on site, which is illustrated in the accompanying images.

From observations on our recent site visit, the following comments are noted:

- The buildings are higher than any building in the wider neighbourhood (the nearest 20+ storey buildings are along South Dowling Street at Green Square, and in Bondi Junction Centre);
- Due to the fairly flat topography and height and size of the block, it is very prominent in the wider area, being visible from large parts of the City of Sydney, Randwick LGA, Bayside Council LGA and beyond;
- The aggregation of L-shaped tower forms creates a mass of very dominant bulky forms, with no visible breaks as seen from many angles;
- The tower elements' 24 metre building depth are well in excess of the 18m maximum Building Depth required in the ADG, and exacerbate the aggregated bulk of the buildings;
- The large block has a minimum 5 storey scale, with no inset gardens, courtyards or relief;
- The front garden setbacks constitute the only deep soil area on the block, and have very limited scope for the planting of trees of any size;
- The deep soil landscape area appears to be well below ADG requirements;

The second block is now under construction. The cumulative impact of the bulk of multiple blocks will have a major impact on the wider area, which is substantially lower in scale and intensity.



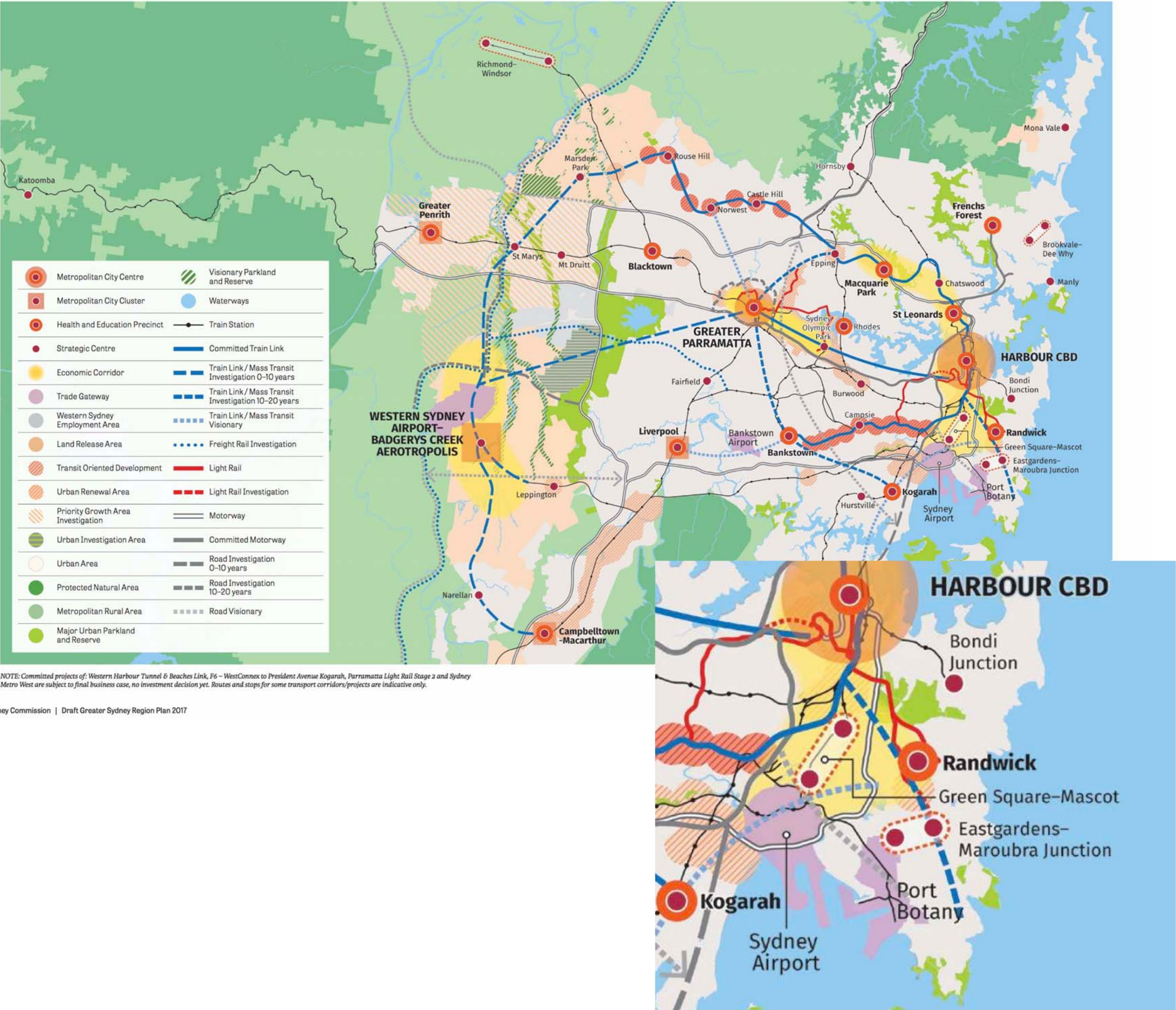
Aggregated bulk and deep floorplates provide little visual relief or sky from the street
source: Hill Thalís



Aggregated bulk and deep floorplates provide no visual relief or sky from afar
source: Hill Thalís

BROADER CONTEXT

Figure 58: Greater Sydney Structure Plan 2056 – the three cities



Greater Sydney Commission | Draft Greater Sydney Region Plan 2017

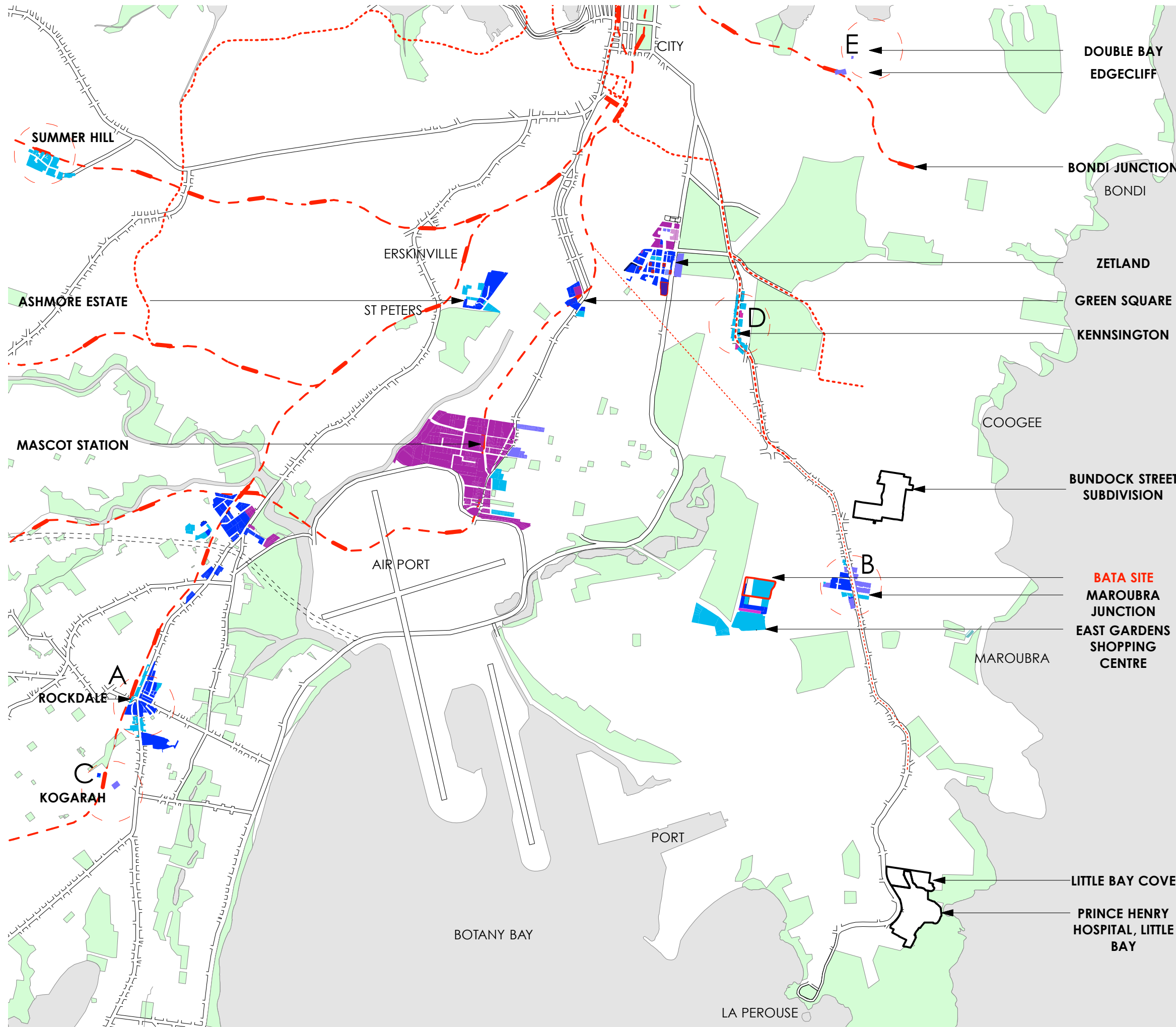
2.1 METROPOLITAN CONTEXT

The Bata site in the eastern suburbs of Sydney is well located to the City, hospitals, universities, ocean coastline and Botany Bay. This part of Sydney also enjoys a lovely coastal climate.

Public transport is limited to local and regional bus services. The Greater Sydney Structure Plan 2056 identifies Eastgardens-Maroubra Junction as a pair of strategic centres - but physical dislocation and lack of high frequency, high capacity public transport prevents them becoming so.

The plan identifies the desirability of investigating north south mass transit through Maroubra Junction over the next 10-20 years, making the site suited to only modest urban consolidation at present.

Due to limited transit choices and lack of structural metropolitan public transport at present, residents and workers who own a car, would most likely favour car use for local and regional journeys. Walking might be a choice for journeys up to 2.5kms (1/2 hour) and cycling up to 10km (1/2 hour)



2.2 URBAN CENTRES

Sydney's east has a variety of centres with widely differing LEP building heights, and public transport service. City and town centres are logical places to focus increased housing density.

The city has most concentrated services, entertainment and employment, and pre-eminent public transport, 7 heavy rail stations and radiating bus and ferry services. Other established centres with co-located services are represented here by Bondi Junction and Rockdale on heavy rail lines and Maroubra on a well serviced regional bus route.

New centres include Wolli Creek located on a heavy rail intersection. Buildings of significant height are permitted to 46m. The Ashmore Estate proximate to St Peters and Erskinville and their rail stations permits buildings heights to 30m. At Green Square buildings heights to 46m are permitted. At Zetland, much closer to the City building heights in excess of 60m are permitted. Tower building footprints here are limited to 750m2.

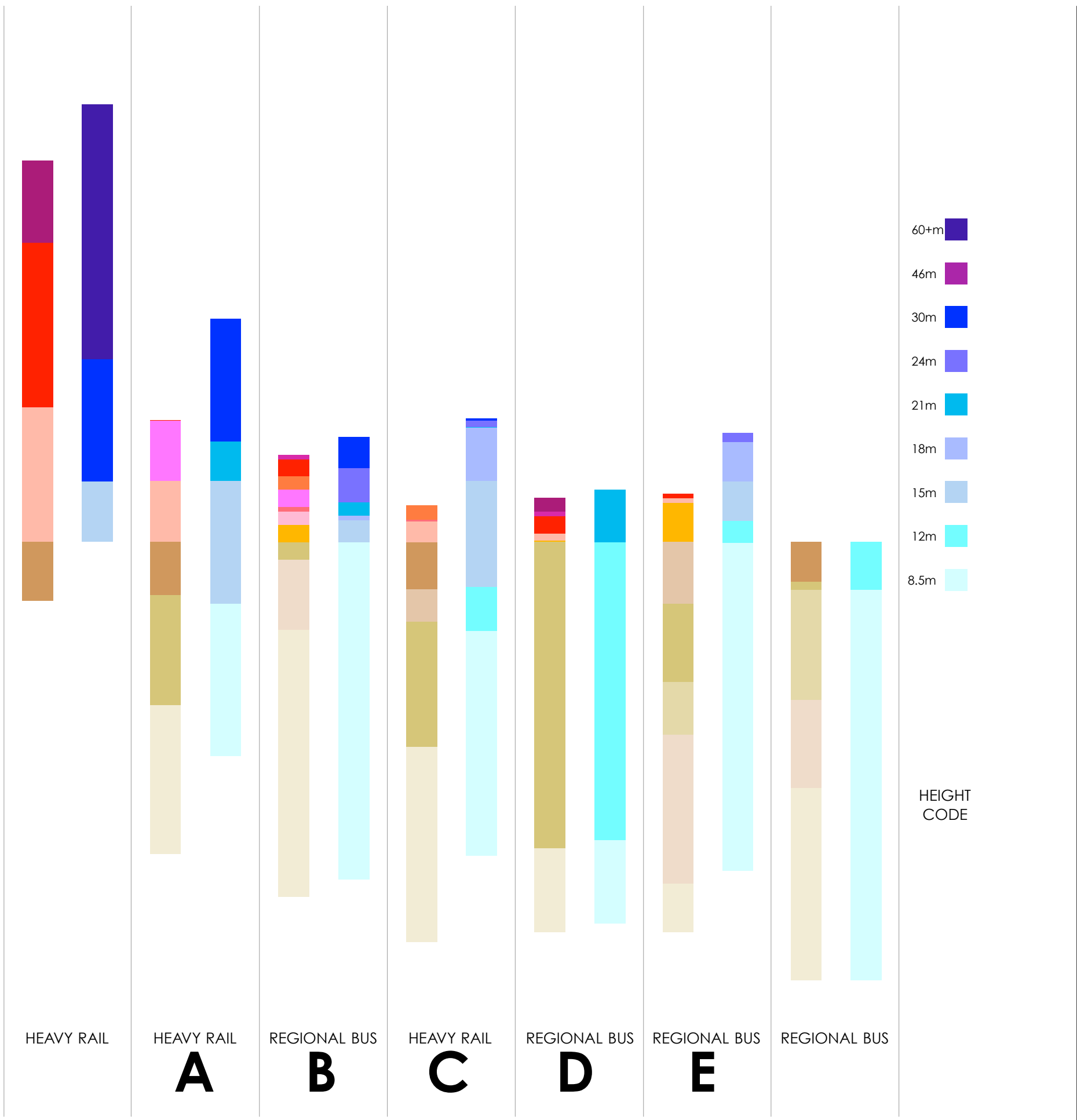
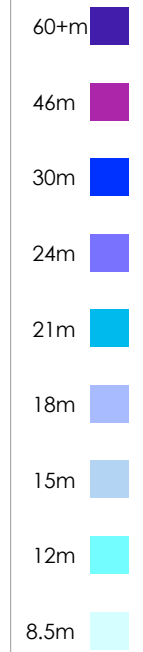
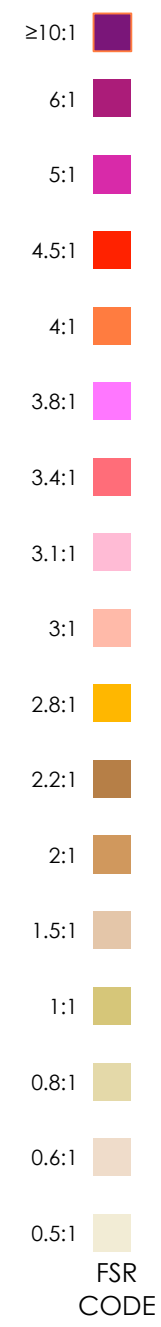
More alarming is the relentless 92Ha extent of 46m building height permitted in loose proximity to Mascot station. With only about 15% of the affected area built, this has resulted in many bulky 12 story slab wall buildings overbearing the public spaces of the streets.

Closer to the Bata site, the East Gardens shopping centre lacks the varied and complex mix of uses and public facilities of a town centre. The shopping Centre cordons off its self from its urban situation and is organised to prioritise car access. While pedestrian access is not prevented, the limited entry points lack the easy open access of a street based town centre like Maroubra Junction, twice the distance away from the Bata site.

- legend
- structural public transport
 - heavy rail
 - light rail
 - future mass transit GSSP

- LEP building heights
- 60+m
 - 46m
 - 30m
 - 24m
 - 21m

A, B, C, D, E
Centres shown on the density metrics graph



2.3 THE METRICS OF DENSITY

The vibrancy of city and town centres brings together the concentration and co-location of varied services and activities for entertainment and employment with a resident population. Increasing housing density at centres increases the liveliness of the place.

Sydney's east has a variety of centres with varied densities. Higher density is occurs in areas of concentrated services and connective public transport.

The graph shows key LEP controls for seven centres, 5 coded to 2.2 Urban Centres drawing. Greater height and FSR is generally located at more complex centres with higher levels of public transport.

2.4 COMPARABLE RENEWAL SITES

There a number of large sites in the vicinity that have been rezoned and redeveloped over the last decade, including:

Prince Henry Hospital, Little Bay

Layout; Adapted layout of publicly-dedicated streets, retaining heritage alignments and buildings, connecting to Anzac Parade to the west

Parks; Series of new parks and community uses.

Density; gross FSR applied to whole site, higher net site densities. Retail at entry

Scale: Retained heritage building, 2 storey houses, and 3 to 6 storey apartment buildings

Little Bay Cove, Little Bay

Layout; New grid of publicly-dedicated streets connecting to Anzac Parade to the west, and open ended streets to the other frontages

Parks; Large central environmental park with lake and wetland, pocket park with playground.

Density; gross FSR applied to individual blocks, higher net site densities

Scale: 2 storey houses, and 4 and 5 storey apartment buildings

Bundock Street Defence site, Kingsford

(northern part constructed as first stage of approved 48 hectare Master Plan)

Layout; New grid of publicly-dedicated streets connecting to Bundock Street to north, and Holmes Street to south

Parks; Large 12 hectare environmental park with wetland, bike track, playing fields and community centre open.

A series of urban smaller urban parks in future stages

Density; 0.5:1 gross FSR applied to whole site, higher net site densities

Scale: 2 storey houses, and 3 and 4 storey apartment buildings

From the analysis above it can be seen that Meriton have been granted and are now seeking further development that is hugely larger than that granted on other major renewal sites in the vicinity in recent times.



The modest 4-6 storey scale of Prince Henry Hospital maintains an openness and identity with robust increases in density - source: Hill Thalís



Streets at Little Bay Cove form connective precincts and draw orientation from the topography and coastline - source: Hill Thalís



The open and generous structure at Little Bay Cove is flexible to a range of building types and uses over time
source: Hill Thalís

SITE AND OBJECTIVES

3.1 DESIGN PRINCIPLES

Public Domain

- To provide a high quality public domain framework with a variety of usable public open spaces, parks and squares accessible and available to the wider community;
- To provide a permeable and legible network of connective public streets, lanes and walkways, which provides pedestrian / cycle links to public transport, accessibility through the site and connections with the surroundings;
- To dedicate all new streets and parks to the public authority so that the site forms part of the area's public space network;
- To create streets and parks of sufficient generosity in relation to the higher densities proposed on this site;
- To create parks of varying size, orientation and usability to serve the future community, and directly link northward to Jellicoe Park to extend the area's emergent Green Grid;
- To provide high quality community facilities to serve the new and surrounding community;
- To retain elements of the site's former industrial fabric to act as markers and physical reference points for the future community;

Built Form

- To provide an identifiable benchmark and deliver a high standard of architectural excellence.
- To ensure a mix of housing types and choices;
- To have a high degree of compliance with the design principles and controls in SEPP 65 and the ADG;
- To retain and adapt buildings that have historic and potential heritage significance and adaptive reuse potential, with consideration to how they are accessed and relate to the surrounding precincts and the wider community;
- To address the existing and potential streets and public spaces;
- To have adequate building separations that align with SEPP 65 and the ADG to ensure adequate sunlight, breezes and privacy while allowing outlook and street address;
- To relieve the agglomerated bulk of long and tall street frontages, articulating the mass by introducing a range of scales, and landscaped breaks along each street frontages within most blocks.

Landscape

- To provide a generous landscape environment that mitigates urban heat island effects.
- To ensure water management is based on the principles of water sensitive urban design and ecological sustainability;
- To provide varied tree planting in public and private space;
- To provide adequate Deep Soli area within each block in compliance with the ADG to allow the planting of substantial trees and garden areas for the benefit of future residents;
- To retain to the maximum extent possible the mature trees on the site.

Capacity Testing

- To review the proposed yield and envelope having regard to SEPP 65 and ADG provisions and broader urban design implications;
- To accommodate a reasonable site density, with regard to its strategic location, public transport provision and urban design capacity.

The following is an extract of section 6.7. *COMPARISON WITH HILL THALIS SCHEME* from the April 2017 Planning Proposa supporting Meriton's Revised Proposal with particular comparison to the previously completed Hill Thalís Preferred Master Plan:

- 1

The streetscape layout proposed by Hill Thalís has been adopted, however larger setbacks have been provided to the northern, eastern and western building frontages to maximise solar access. The proposed design and width of the road reserves outlined in the Hill Thalís concept plan has also been adopted.
- 2

The centrally located public open space (Wedge Park) has been incorporated but rotated to maximise solar access to the open space and provide a more useable public domain.
- 3

Elements of the existing buildings along Heffron Road have the capacity to be kept, with substantially setback medium density residential buildings provided along this interface in response to the site's heritage and character.
- 4

Provision of a centrally located civic open space.
- 5

Lower scale buildings along the northern portion of the site, with buildings up to 20 storeys within the less sensitive pockets of the site towards the south and west.

Key differences adopted in the Hassell concept plan, which are considered to provide a superior urban design outcome:

- A

The proposal has introduced podiums to the majority of the buildings consistent with the design approach within the southern portion of the BATA site. The podiums will accommodate above-ground car parking sleeved with apartments and elevated communal open space to maximise solar access. The inclusion of the podiums accounts for the significant variation between the proposed FSR of the Hill Thalís scheme (1.8:1) and the Hassell scheme (2.35:1).
- B

Building orientations and heights have been rationalised to improve efficiency, maximise solar access, natural ventilation, outlook and to ensure building depths will support a range of apartment layouts.
- C

Car parking will largely be accommodated within the podium levels to avoid the need for excessive excavation and fill.
- D

The increased building separations removed the need for non-habitable building facades across the entire site.
- E

The height of buildings along the Bunnerong Road frontage have been reduced to minimise overshadowing to the residential properties to the east.
- F

The northern access point to Banks Avenue and the western access point to Heffron Road have been deleted as they are located too close to the intersection of these roads and are not supported on traffic grounds (see Appendix F).
- G

The extent of public open space has been increased from 20% of the site area contemplated by Hill Thalís to 30% of the site area in the Hassell scheme.

As a basis for this assessment Hill Thalís notes the following responses:

- 1

This is incorrect. Whilst a similar layout has been adopted, the Revised Proposal is rotated at a less desirable orientation with critical connective pieces of street reserve deleted. Please see section 4.3.
- 2

This is incorrect. The rotation noted in the Revised Proposal offers less solar penetration to major public spaces, particularly between the times of 11am and 1pm in mid-winter. Please see section 4.4.
- 3

The Revised Proposal appears to maintain a minimum number of historic and character elements along the Heffron Road frontage only. As Bunnerong Road is a primary frontage and source noise other historic elements are well suited to being adapted to provide a buffer as well as non-residential uses better suited to that frontage, and should be maintained.
- 4

Noted. With amended orientation and disconnective street edge.
- 5

The location of 8 storey buildings to the northern edge of the site is not considered "low" as these are significantly taller than the width of the adjacent street. A low scale would be considered to be no more than 6 visible storeys from the street. The orientation, depth and arrangement of taller elements must be carefully considered to provide maximum amenity to the public domain and between buildings.
- A

There appears no valid reason why car parking should not be provided in basements. Above ground podium parking should be avoided. The addition of building bulk by podium car parking has significant impacts on achieving amenity of solar access and ventillation, deep soil, mature landscape, through block links, stormwater management and mitigation of urban heat island effect.

It should be noted that the Draft Council Master Plan envisaged a gross FSR of 1.62:1, and the mentioned 1.8:1 would only be supported should major new public transport such as metro or light rail be provided. This is not the case currently. Therefore no credible case for an increased FSR of 2:35:1 has been justified by Meriton's Consultants.
- B

This peer review finds that this claim cannot is not justified, and cannot be supported. Please see sections 4.7 - 4.11.
- C

This strategy is sub-standard for a dense urban project when significant contamination or similar constraints prevent the integration of basements, and is not supported. Please see section 4.7 and Recommendations.
- D

Whilst building separations may satisfy some requirements of the ADG we note the excessive depth of floorplates and the arrangement of tall "L" shaped forms may make achievement of amenity requirements difficult. Further testing of breaks between buildings, particularly in the south eastern and south western corners of blocks should be interrogated to enable solar access and ventillation to lower levels.
- E

The distance to properties across Bunnerong Road is greater than the relationships between towers within the revised proposal. It is noted that these detached dwellings take their private amenity from backyards located even further east. Elements that have been reduced along the eastern edge of the site should not compound bulk and compression further into the site.
- F

Whether or not these streets are open to traffic is subordinate to the creation of a connective and integrated street network. The street network should be holistic and without dead-stubs. Traffic management can be arranged in a number of ways through the making of the public domain. These elements should be returned to the public dedication network of streets.
- G

It is noted that the deletion of street elements and historic items has shifted the percentage of open space, but has not necessarily increased the actual quantum or quality. The area of public streets and parks as a percentage of the site together is the critical number. The loss of existing historic built form along Bunnerong road has removed a buffer to residential development and may increase the penetration of noise and related effects. The potential for communal and non-residential uses to activate the precinct as well as existing character would be lost. This claim cannot be supported.

EVALUATION OF THE PROPOSAL

4.1 DRAFT COUNCIL MASTER PLAN

As part of the 2016 Urban Design Study a Draft Council Master Plan for Bayside Council was prepared by Hill Thalís, pictured left.

The plan provided a structure which reinforced and respected the heritage items which should be retained and re-worked to provide character and sense of place.

A wedge park was utilised to draw amenity and relief deep into the site as well as connect to the greater open space network being provided to the south.

Built form was distributed to respond to the structure, location of internal open space as well as open spaces beyond the site including Mutch Park and the golf course to the west.

The location of the wedge park biased to the east of the site locates the majority of built form away from the major traffic and noise pollution source along Bunnerong Road and allows for the creation of well proportioned and walkable blocks and local streets.



- New streets as detailed
- New park/open Space
- New square/plaza
- Heritage item retained
- Heritage item demolished
- Built form heights and dimensions as noted



4.2 MERITON REVISED PROPOSAL

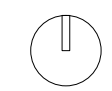
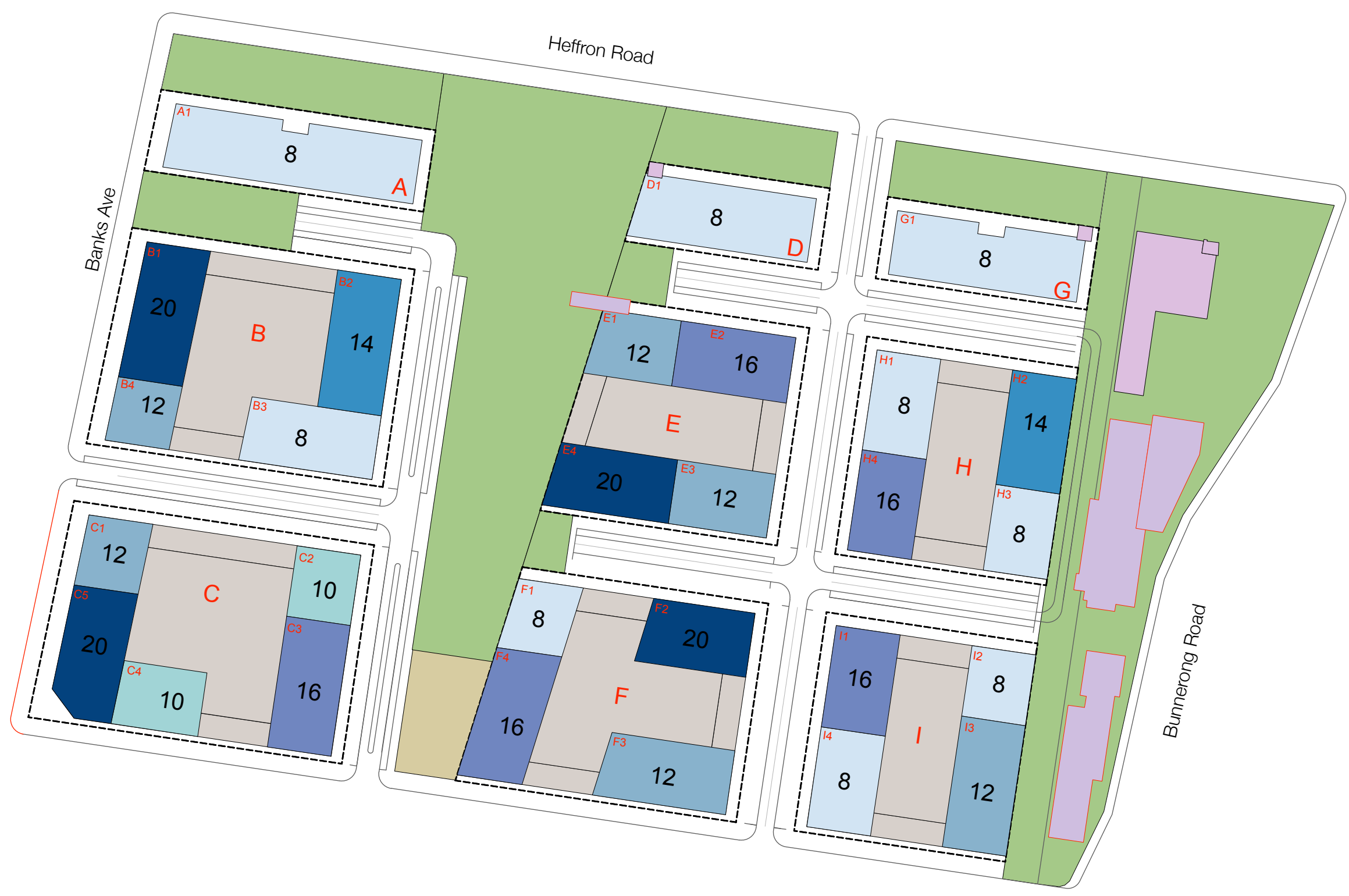
The Meriton Revised Proposal (Pagewood Green Stage 2 Master Plan) was developed subsequent to the Draft Council Master Plan, and is pictured left. For the purposes of this review the colours and graphic qualities have been modified to allow comparison between the plans.

Notable differences to the 2016 Preferred Master Plan include:

- The disconnection of the street network - resulting in a number of cul-de-sacs and building frontages without a street or lane;
- The relocation of the wedge park to the western half of the site, resulting in the majority of urban blocks being located closer to Bunnerong Road;
- The re-orientation of the wedge park from primarily north to north east with resultant overshadowing (detailed analysis in further pages);
- The inclusion of above-ground podium parking, resulting in the loss of courtyards with deepsoil and an increase in bulk and diminished ability to provide through-block links;
- Clustering of similarly proportioned built form which may result in significant overshadowing and an inability to meet SEPP65 and Apartment Design Guide benchmarks.

Whilst the Revised Proposal provides a number of positive changes, several key strategies should be further revised to optimise and provide a best-practice urban exemplar. Please see section B for recommendations subsequent to the comparative analysis contained in the following pages.

-  New streets as detailed
-  New park/open Space
-  New square/plaza
-  Heritage item retained
-  Heritage item demolished
- Built form heights and dimensions as noted



4.3 PUBLIC STREET NETWORK

A Connected and distributed street network of local streets is essential to new urban places, offering a choice of wayfinding.

Street networks should not be predicated on a concentrated traffic model, rather a distributed and equitable hierarchy of street and lane types.

Should traffic control and mitigation be required, a number of strategies can be employed i.e left in, left out access - but this should not prevent the dedication of a holistic and integrated street network.

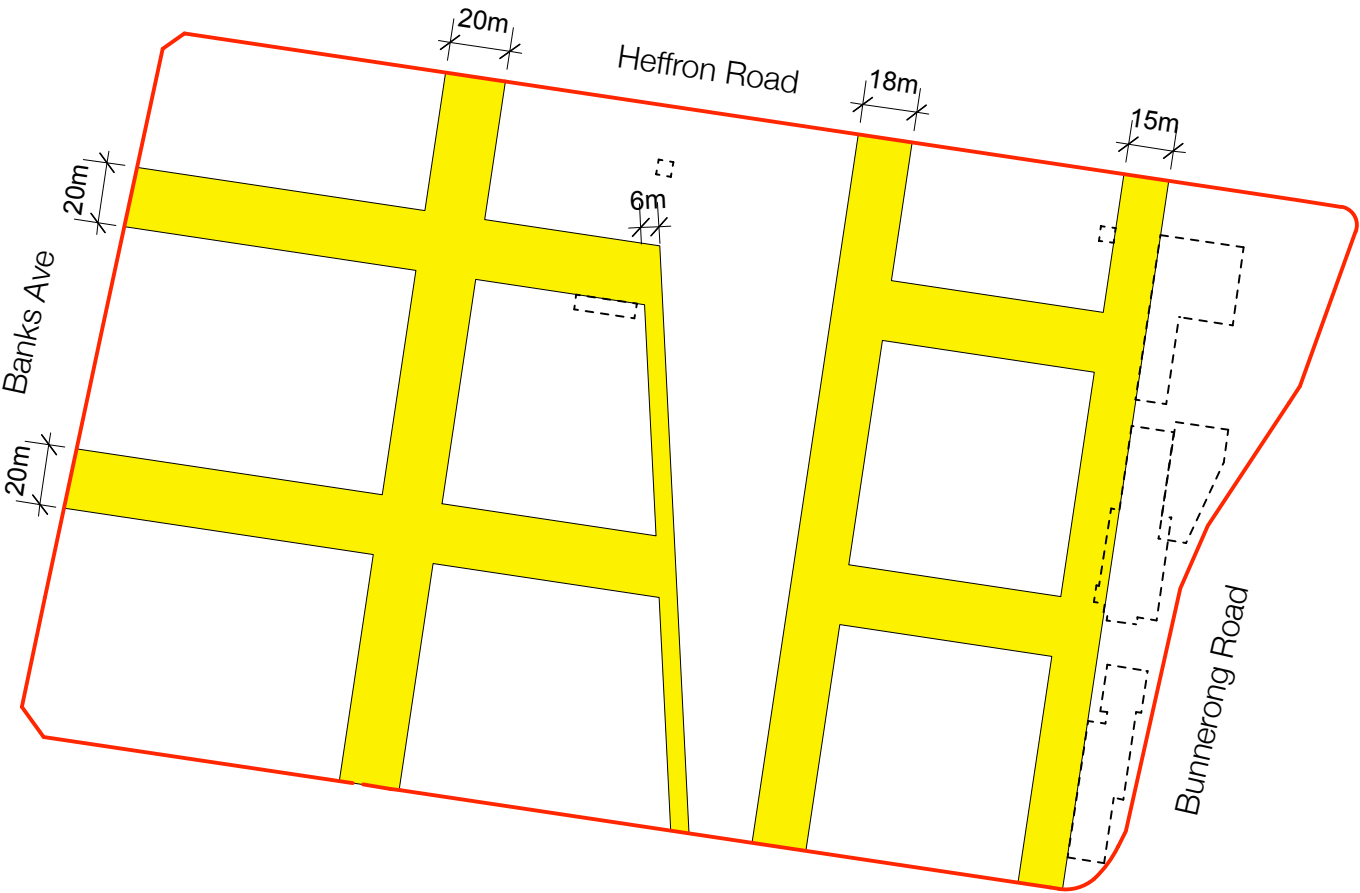
The Revised proposal provides an incomplete street network which leaves several blocks without adequate street address, particularly along the eastern edge of the central park.

Street and lane reservations should be provided along each block boundary, but may take the form of a share-way or traffic limited environment to suit the desired access in, out and around the site.

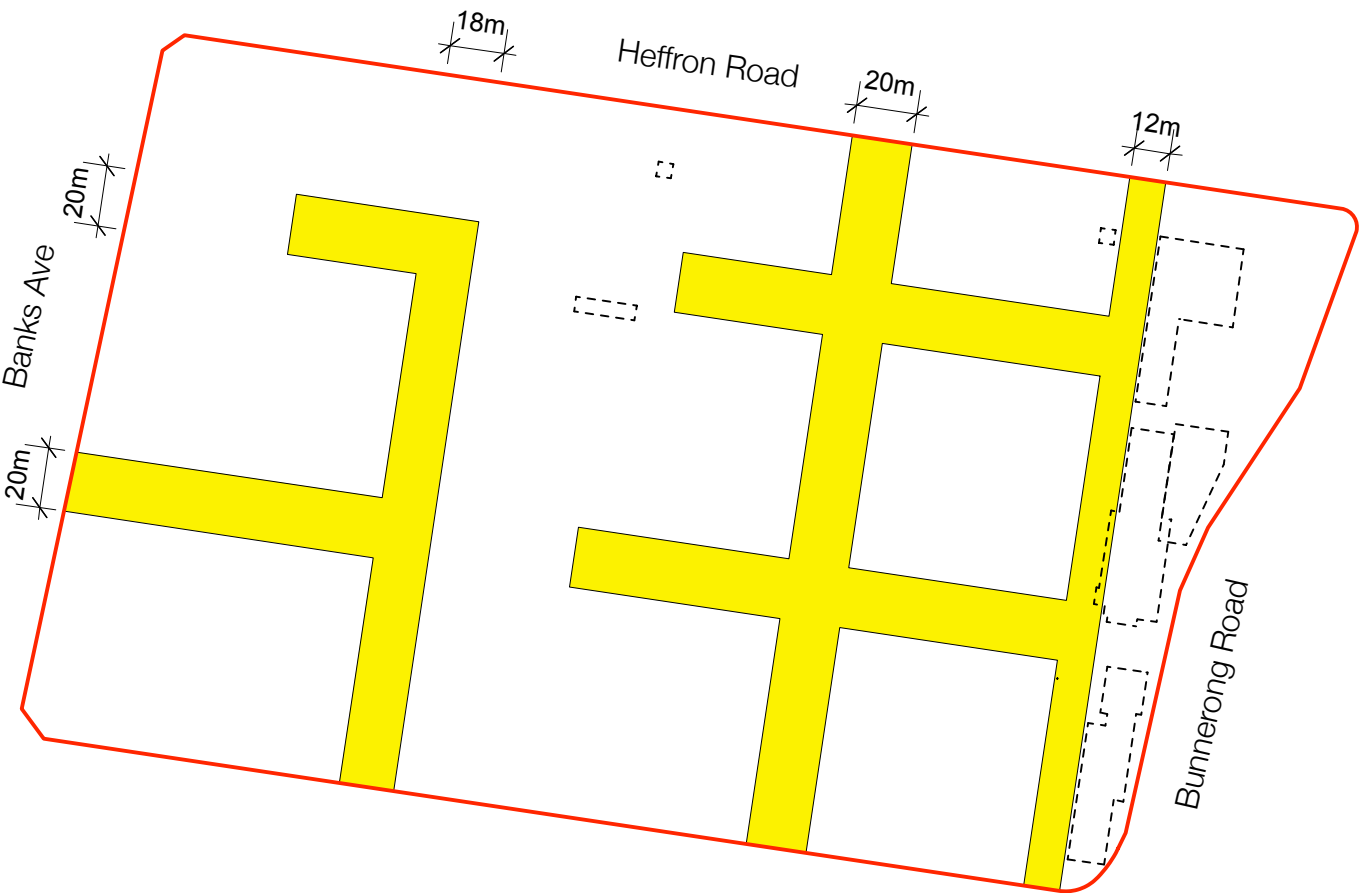
A concentration of limited entry and exit points should be avoided to prevent amenity impacts to any one area of the site.

The unfinished nature of the street network is unsupportable.

- New street reservation
- Heritage items shown dotted



Draft Council Master Plan



Revised Proposal (Meriton)

Note: All boundaries and setbacks should be confirmed with survey



4.4 PARKS AND OPEN SPACE

Whilst the total area of streets and open space is comparable between the Draft Council Master Plan and the Revised Proposal, it is critical in dense urban environments that the clarity, orientation and proportion of these spaces maximise amenity and solar access.

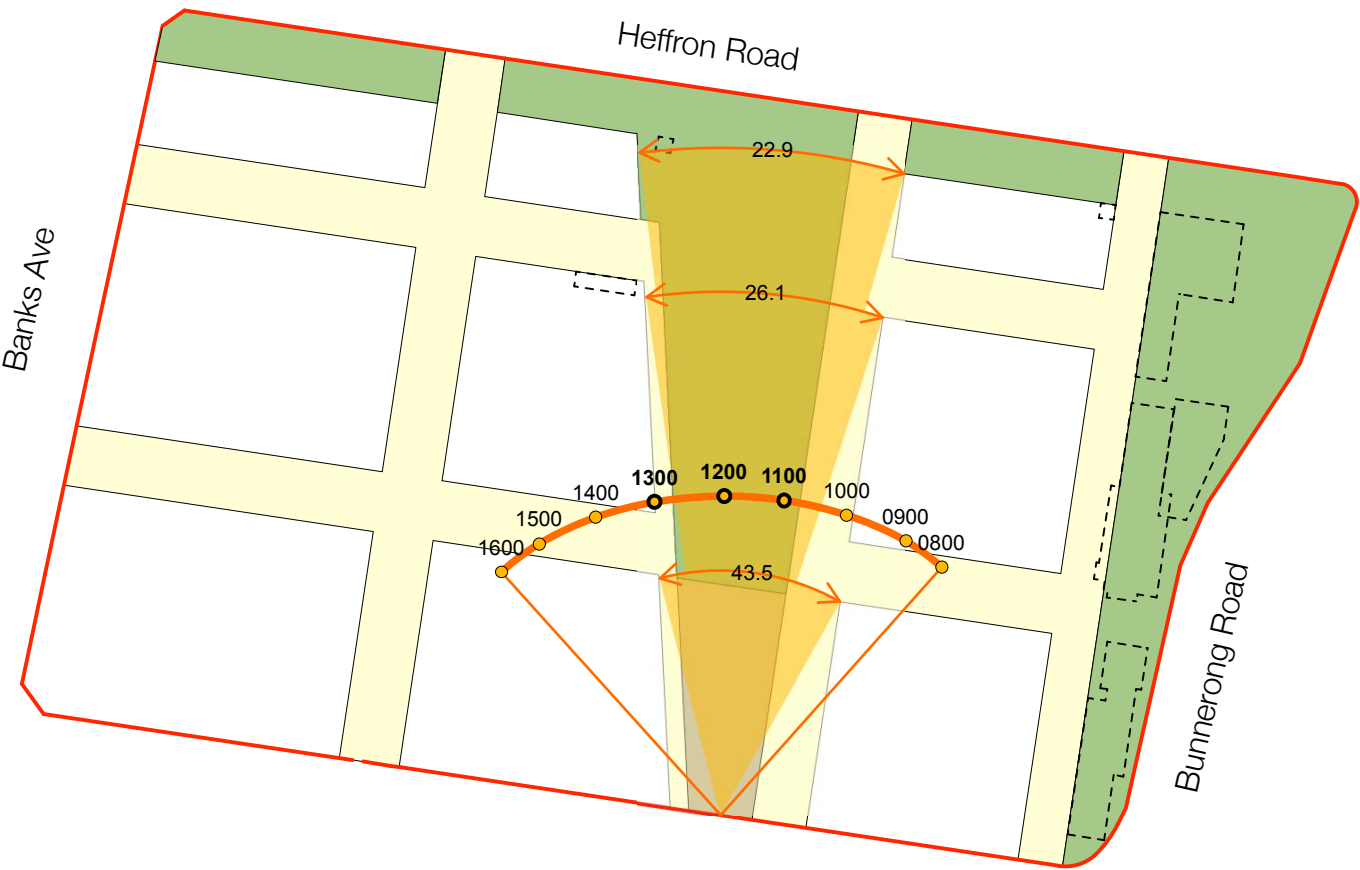
The Revised Proposal provides for a wedge park that pulls open space deep into the site. The change in orientation from the Draft Council Master Plan provides less solar access in total due to its rotation further east of north (up to 14% less).

Importantly the more easterly orientation reduces the potential solar access to open spaces at the critical time between 11am and 1pm.

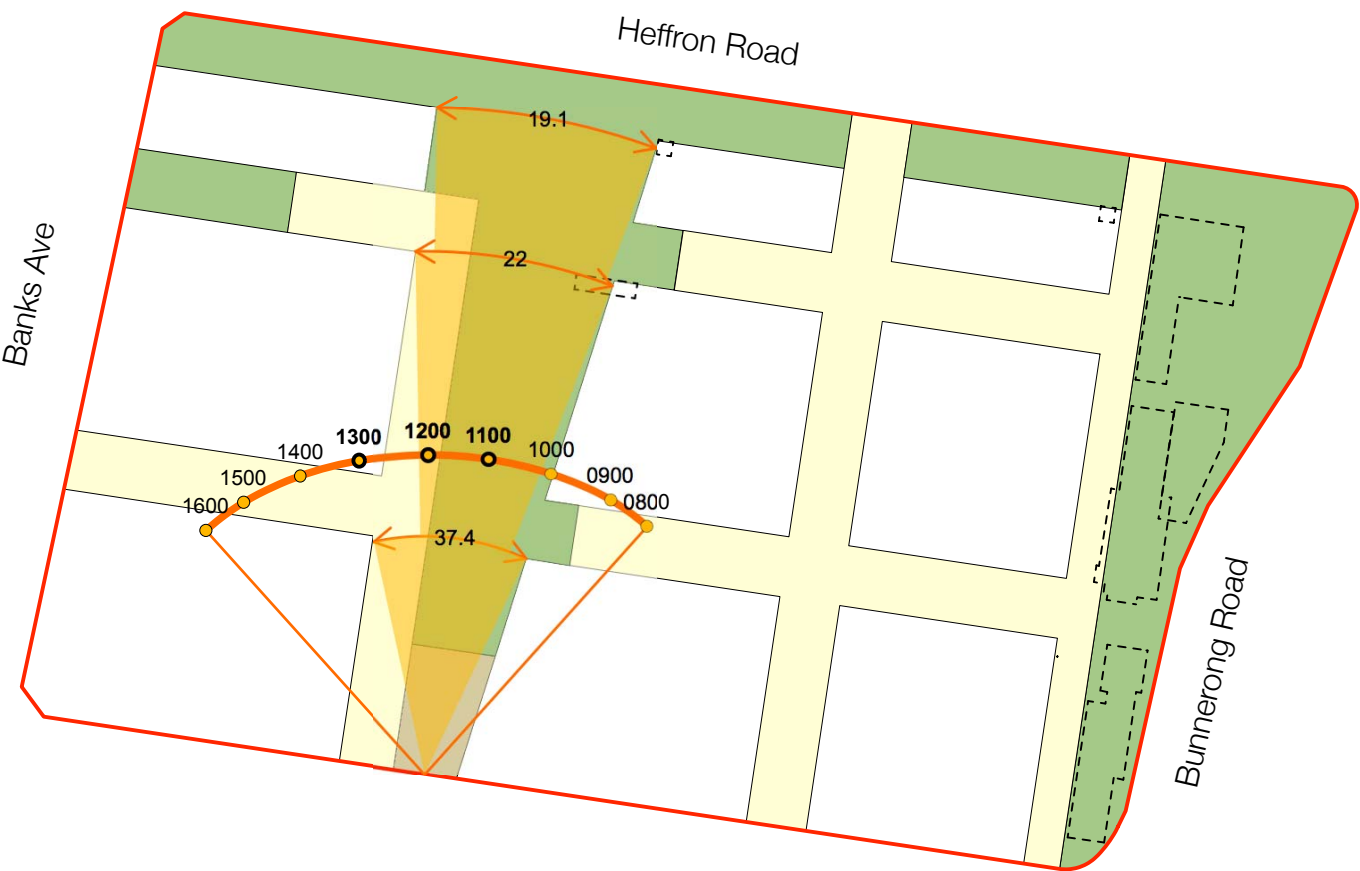
In order for public spaces to provide maximum amenity and relief in dense environments their orientation and proportion should be optimised to both time of day and season as well as adjacent built frontage heights and length of street-wall.

The definition and dedication of streets and open space in the Revised Proposal is confused. The deletion of street portions converted to pocket park detracts and confuses from the primary open space and increases the proportion of parks at the expense of streets.

- New Street
- New Park/Open Space
- New square/plaza
- All potential heritage items shown dotted



Draft Council Master Plan



Revised Proposal (Meriton)



4.5 HISTORIC AND CHARACTER ELEMENTS

Retention of valuable existing built fabric and the way in which it is integrated is critical to establishing a character of place from day one.

The Revised Proposal treats historic elements differently to the preferred Master Plan in a number of ways:

- The number and presence of heritage items along the Bunnerong Road frontage is greatly reduced (A). This limits the presence and understanding of the buildings as an ensemble and representation of use of the site over time.

The resultant new park is thin in proportion and not readily useable. It is also adjacent to significant traffic on Bunnerong Road. This historic fabric should be maintained to provide a buffer to traffic and also allow activation to the lane as well as a variety of potential mixed, retail or community uses to enliven the precinct, which are better suited to the Bunnerong Road frontage;

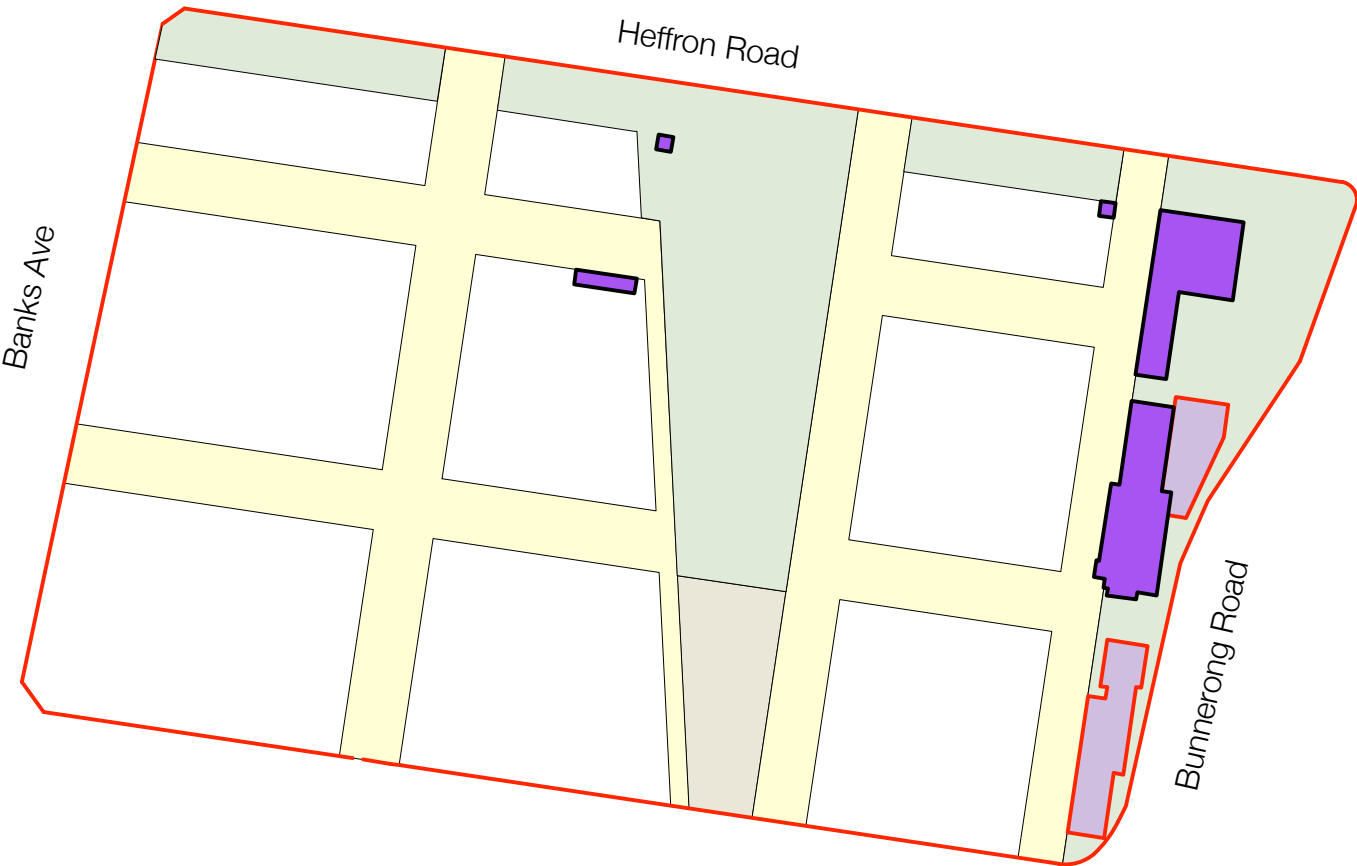
- Remnant built form in the centre of the site has differing/diminished relationships to the open space. Where smaller footprint elements are better suited as objects in the round and facades integrated into new development, the Revised Proposal reverses this.

The approach adopted by the Revised Proposal to integrate the small footprint elements (B) into new built form risks them being less recognisable. These elements should be considered 'free' and linked to any new built form only lightly.

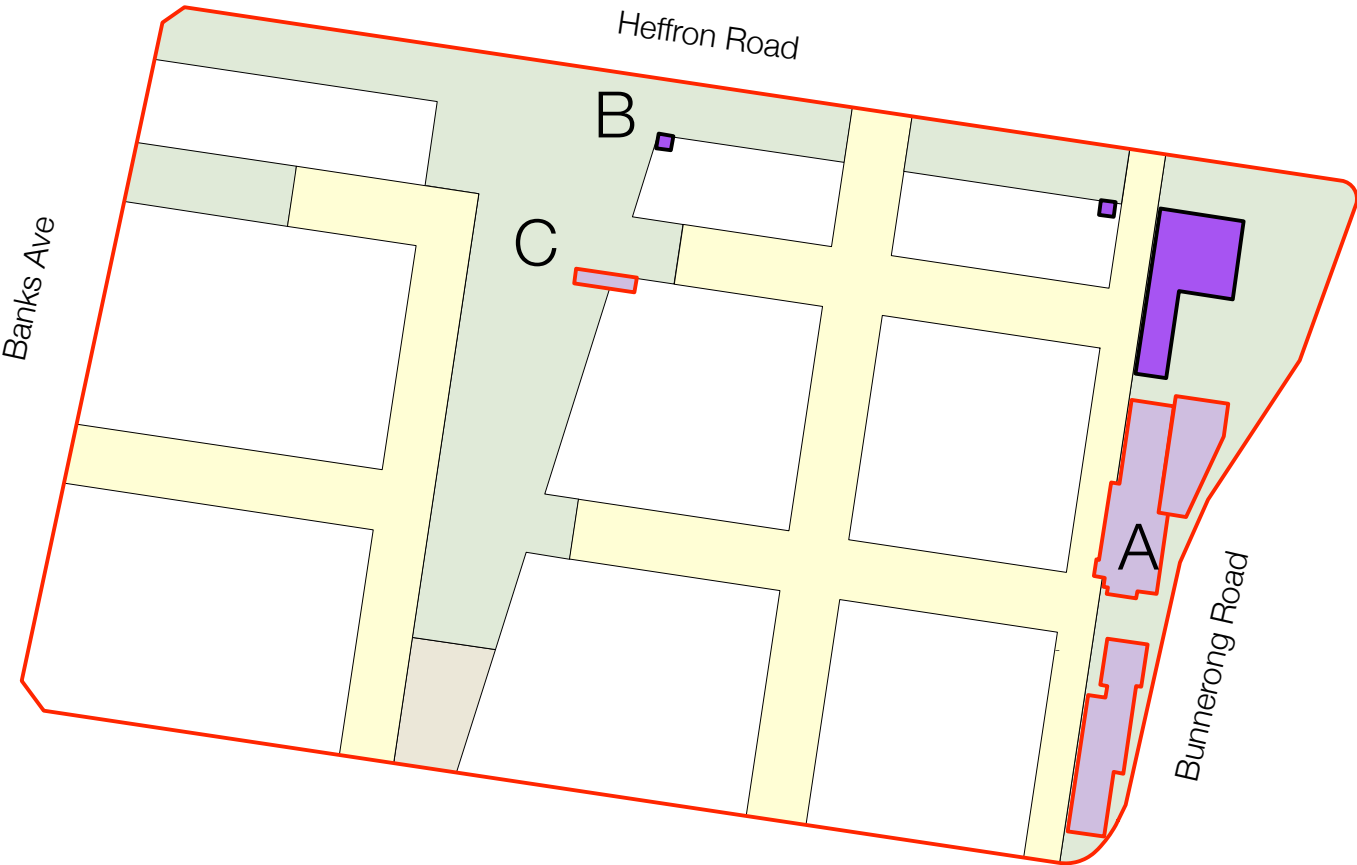
Broader facade elements (C) should be maintained, but are best integrated into new built form. Retaining these elements in open space reduces the sight lines along and through the open space and prevent a coherent public edge to the park.

The strategy of retention and interface with heritage items is not optimal.

- New Street
- New Park/Open Space
- New square/plaza
- Heritage item retained
- Heritage item demolished



Draft Council Master Plan



Revised Proposal (Meriton)

Note:All boundaries and setouts should be confirmed with survey



4.6 URBAN BLOCKS

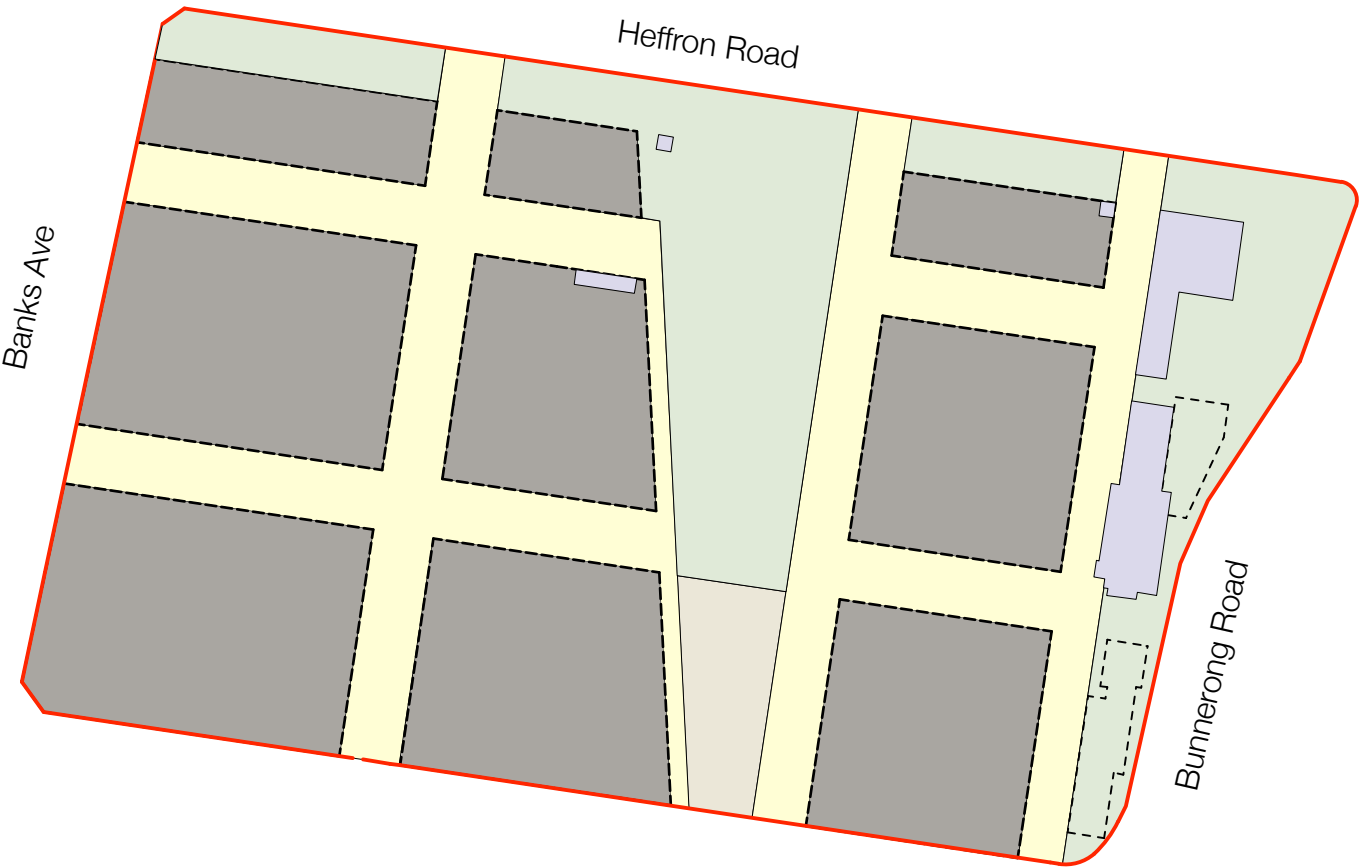
Whilst the area of urban blocks is similar, their distribution, orientation and frontage is critical to providing urban amenity and address.

The primary sources of amenity are the new wedge-park and existing Mutch Park and golf course to the west. A significant source of noise and air pollution from Bunnerong Road should be mediated by biasing development away from this source.

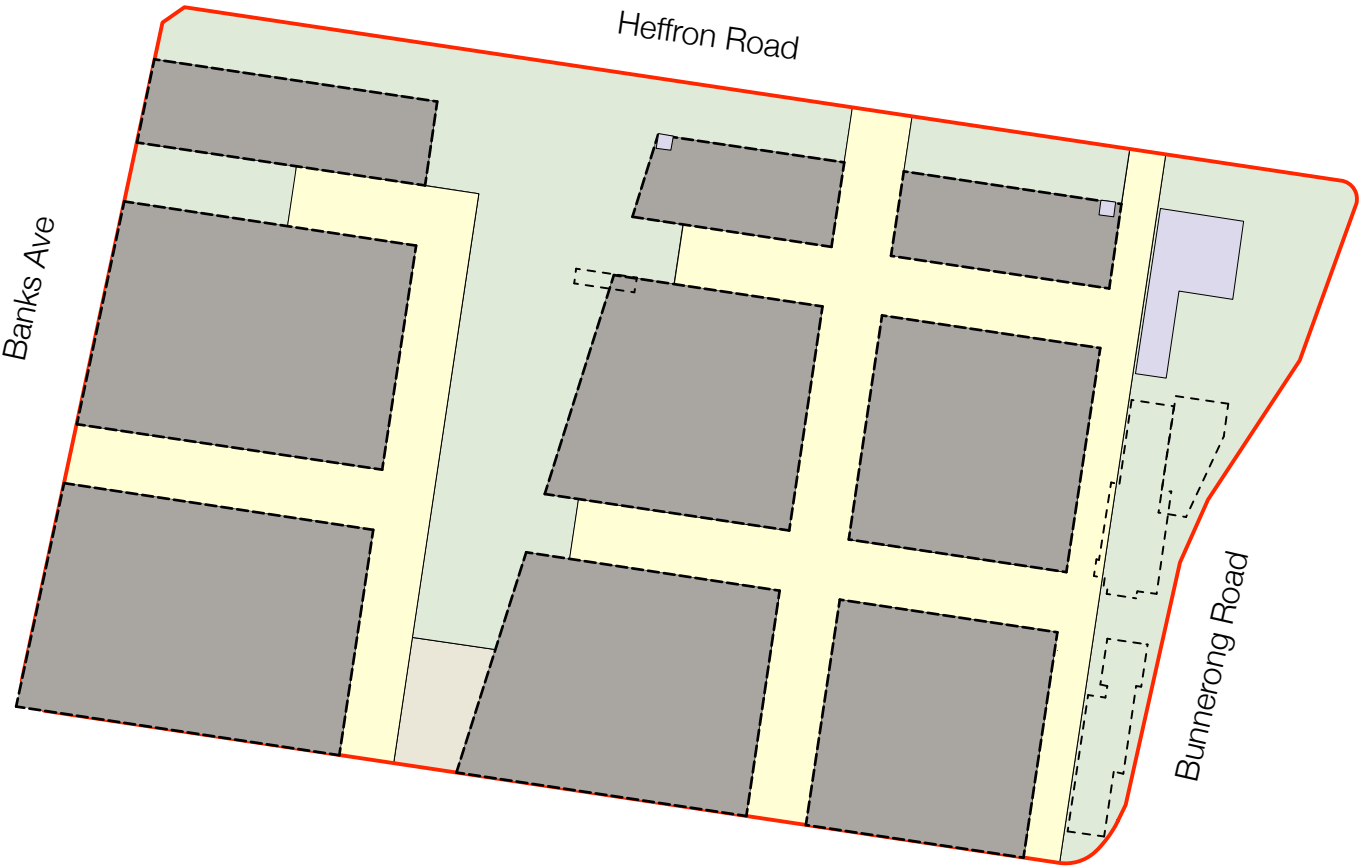
The Revised Proposal locates the majority of urban blocks in the eastern half of the site - further away from the major sources of amenity to the west, but closer to Bunnerong Road.

The location of blocks is not optimal.

- New Street
- New Park/Open Space
- New square/plaza
- Heritage item retained
- Heritage item demolished shown dotted
- Proposed urban blocks



Draft Council Master Plan



Revised Proposal (Meriton)



4.7 DISTRIBUTION OF BUILT FOR LOWER LEVELS

Urban blocks should supplement the landscape of streets and open spaces with courtyards and unimpeded deep soil zones.

Increased density and the loss of private open space must be supplemented with significant vegetation for environmental benefit, amelioration of urban heat island effect, privacy as well as mental and physical health.

Courtyards and landscape at ground provide for infiltration of stormwater, options for through-block links as well as significant mature vegetation.

The revised proposal proposes above ground parking causing the loss of all central courtyards.

Recent developments of a similar scale in the immediate vicinity, as well as eastern Sydney generally, have provided basement parking with deep soil as an integrated approach.

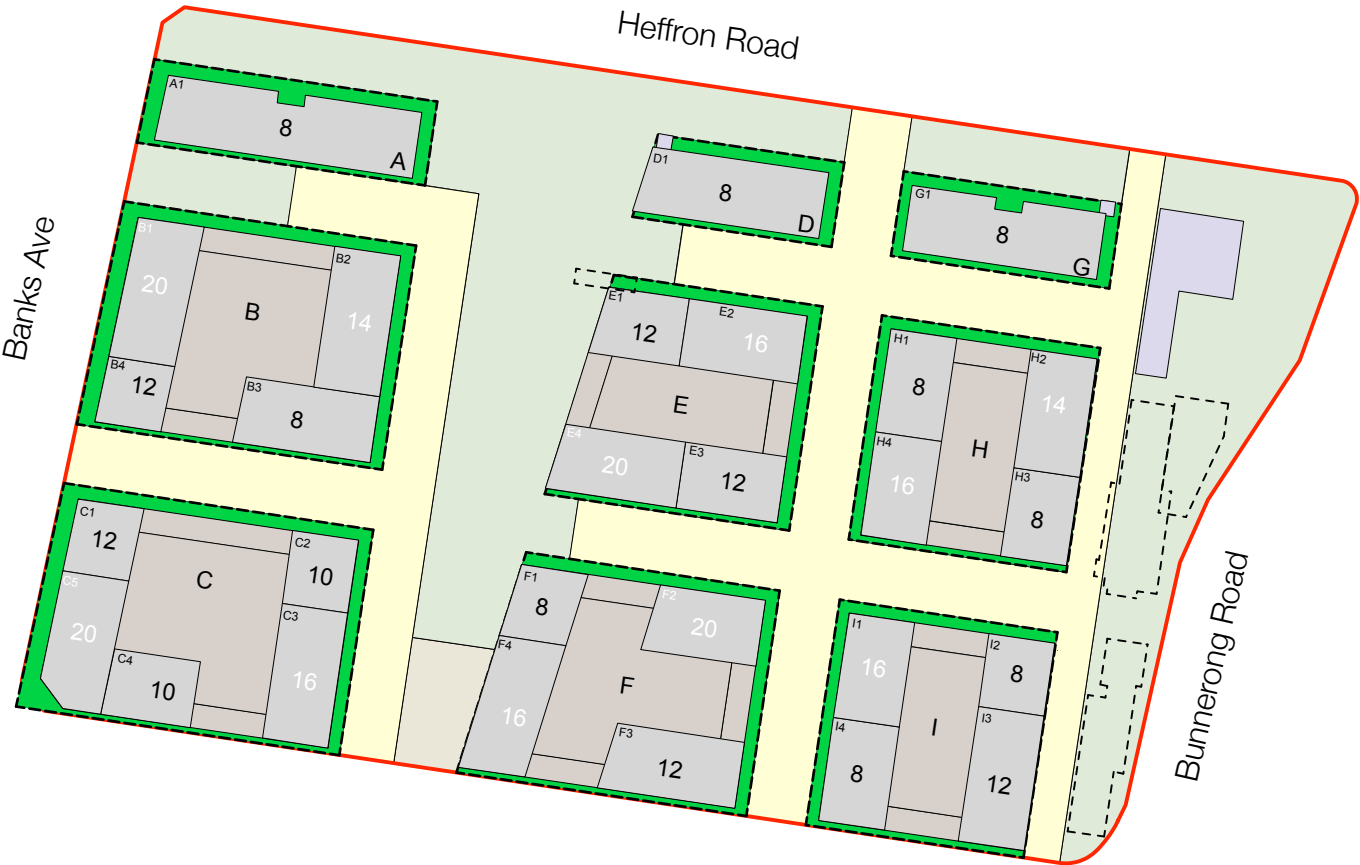
There appears no valid reason to deviate from the preferred approach, and any proposals should provide deepsoil zones, unimpeded, in line with SEPP65, the ADG and Council policies - as a minimum.

- New Street
- New Park/Open Space
- New square/plaza
- Heritage item retained
- Heritage item demolished shown dotted
- Proposed built form footprints
- Potential deep soil landscape



Draft Council Master Plan

Note: Built form in this plan is updated and takes account of the higher yields sought by Meriton's review of the Draft Council Master Plan. Please see section 5.3 for recommendations



Revised Proposal (Meriton)



4.8 DISTRIBUTION OF BUILT FOR UPPER LEVELS

The orientation, depth and distribution of taller built forms must be carefully balanced to provide amenity within dwellings, between buildings and to streets and open spaces adjoining.

The revised proposal locates significant built form in an east-west arrangement which creates overshadowing and compression. Block E and F are of particular concern.

The orientation of built form north to south along its longest edge provides for faster moving shadows and deeper penetration of sunlight into blocks and courtyards, particularly in winter.

In this case, the orientation of taller elements north to south provides better orientation to the central open space.

To further limit the over-shadowing impacts of taller elements a limit to the 750sqm maximum gross footprint of towers should be enforced.

Limiting the footprint of towers provides additional breaks between buildings in a more slender proportion, reduces bulk at the street level and from beyond the site, and may allow an increase in the overall number of towers achievable.

The Revised Proposal has not coordinated the number, orientation or separation of taller elements in a cohesive manner which maximises amenity and reduces impacts of bulk and appearance.

The built form proposed is not supported.

- New Street
- New Park/Open Space
- New square/plaza
- Heritage item retained
- Heritage item demolished shown dotted

Built form heights and dimensions as noted



Draft Council Master Plan

Note: Built form in this plan is updated and takes account of the higher yields sought by Meriton's review of the Draft Council Master Plan. Please see section 5.3 for recommendations



Revised Proposal (Meriton)

Note:All boundaries and setouts should be confirmed with survey

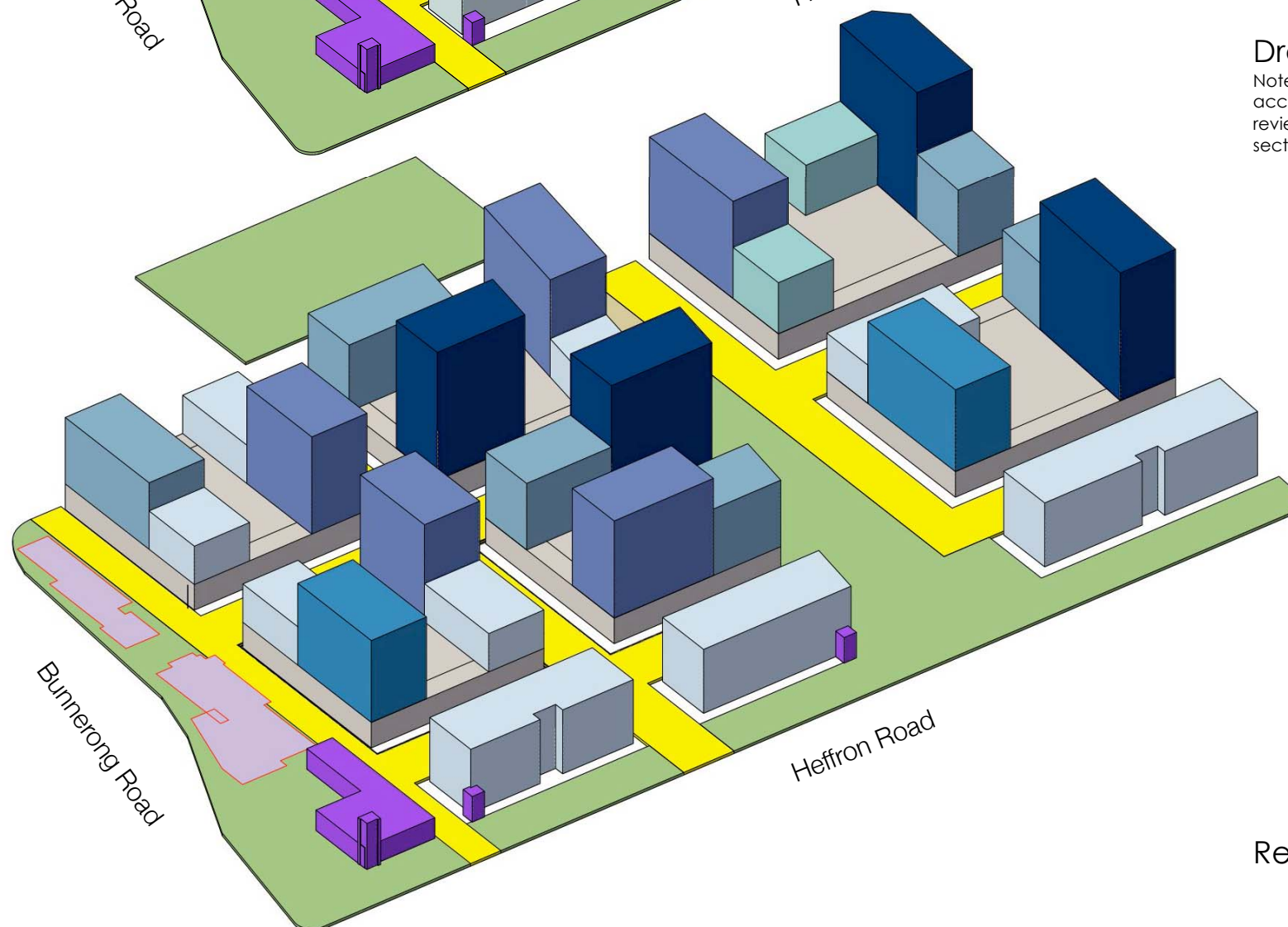
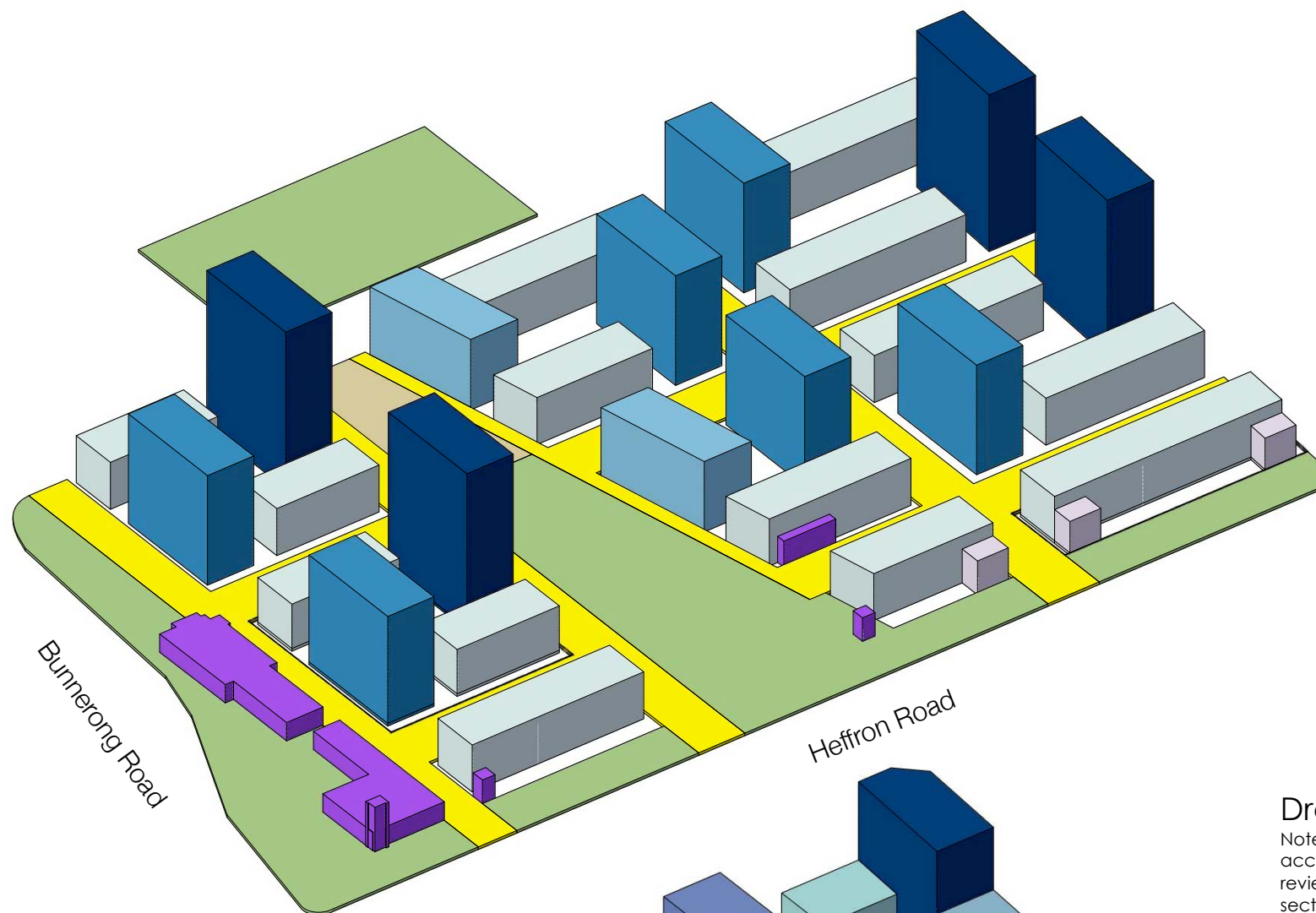


4.9 MASSING AND BULK

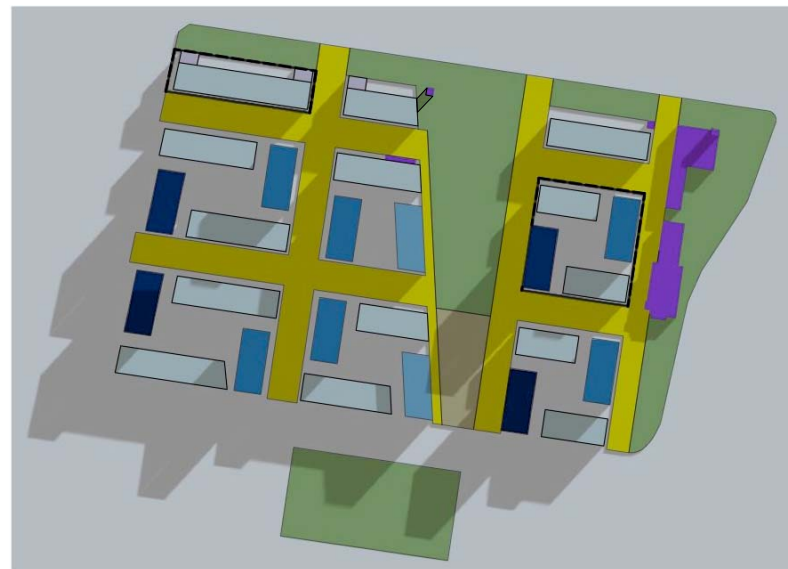
The distribution and orientation of built form should be calibrated to maximise residential amenity and to provide a high degree of openness to streets and open space - avoiding aggregated bulk.

The clustering of built form within the Revised Proposal is claustrophobic and impacts highly on the availability of solar access to the public domain and dwellings at lower levels - particularly in the centre of the site.

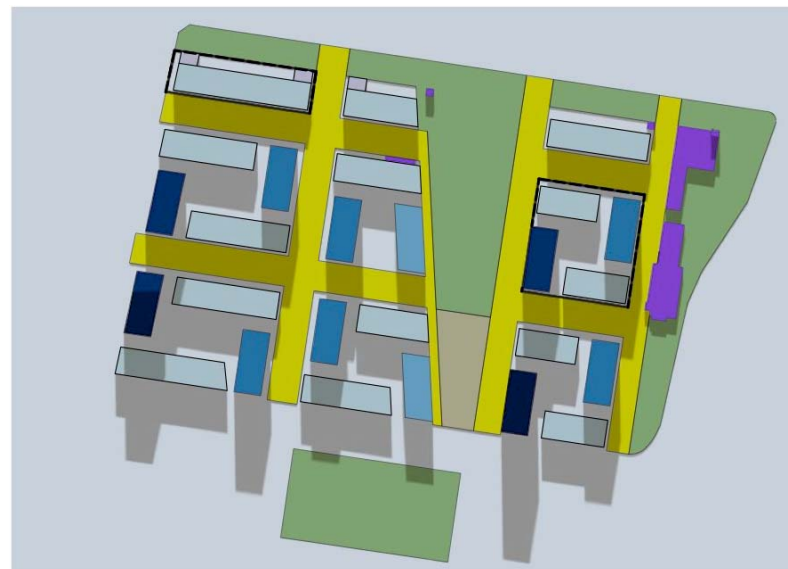
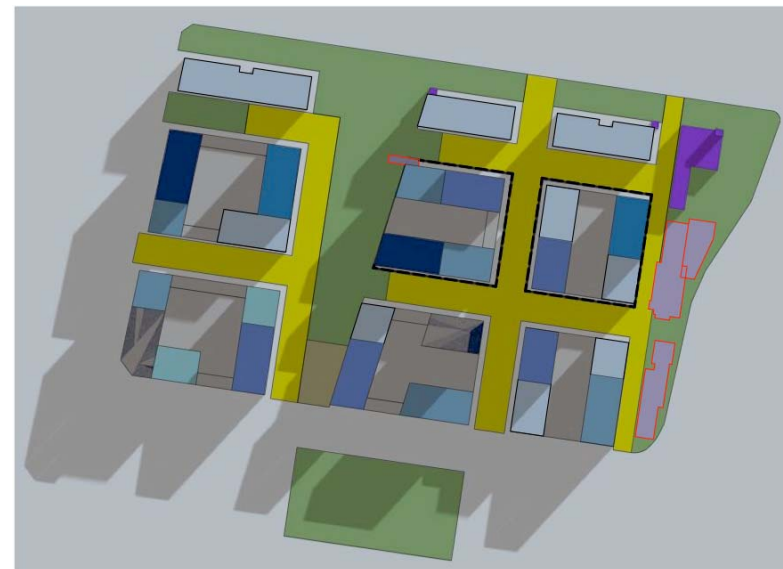
The north south orientation and less concentrated distribution of the taller elements in the Draft Council Master Plan affords greater separation between towers for outlook, solar access and privacy as well as solar access around buildings to streets and open spaces as well as central courtyards.



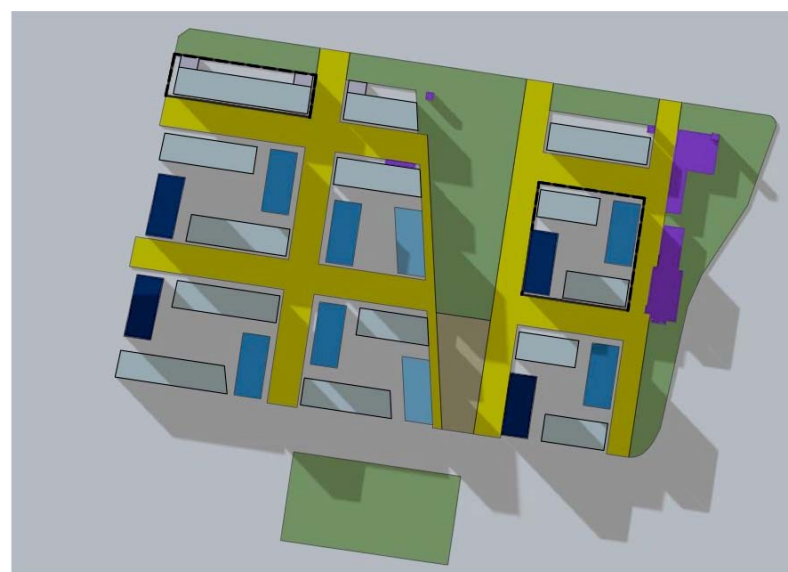
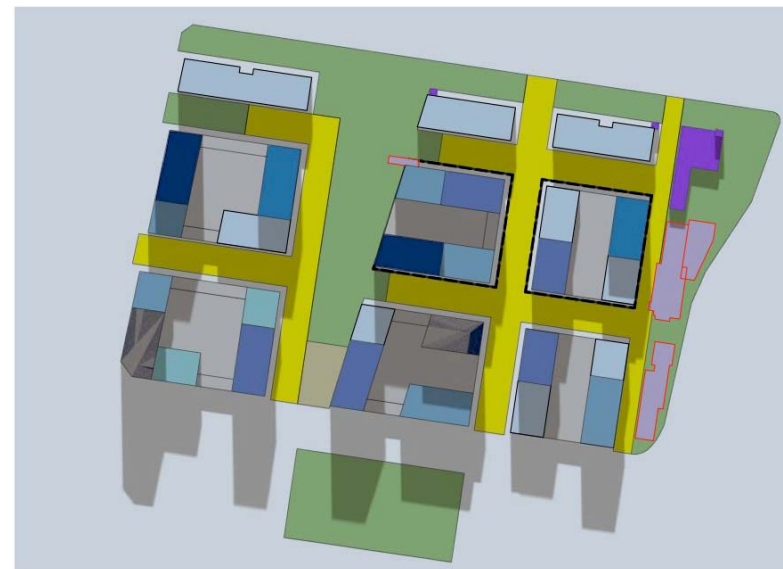
- New Street
 - New Park/Open Space
 - New square/plaza
 - Heritage item retained
 - Heritage item demolished
- Built form heights and dimensions as noted



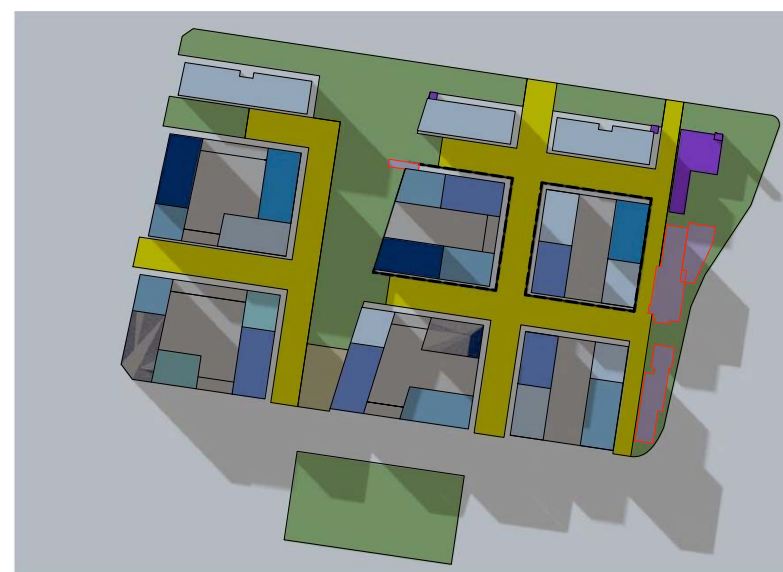
9am, June 21



Noon, June 21



3pm, June 21



4.10 SOLAR ACCESS AND OVERSHADOWING

Solar access across the public domain, within blocks and around built form is critical to providing amenity within dense urban environments.

The built form proposed in the Revised Proposal shows significantly increased over-shadowing impacts on the central park, streets and adjacent park in stage 1 to the south.

This increase in overshadowing should be mitigated by providing an orientation such as that in the Draft Council Master Plan.

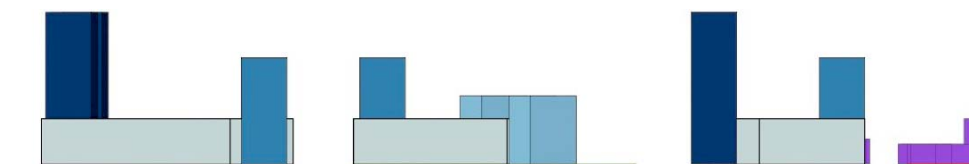
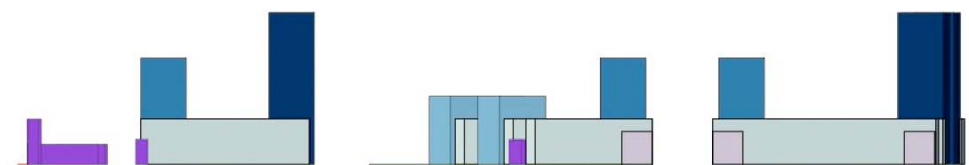
- New Street
- New Park/Open Space
- New square/plaza
- Heritage item retained
- Heritage item demolished

Built form heights and dimensions as noted

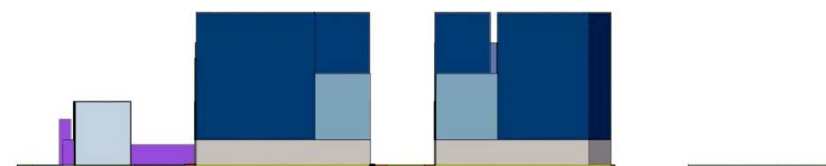
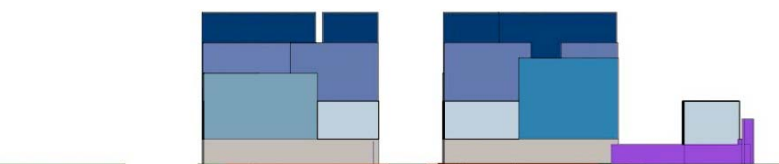
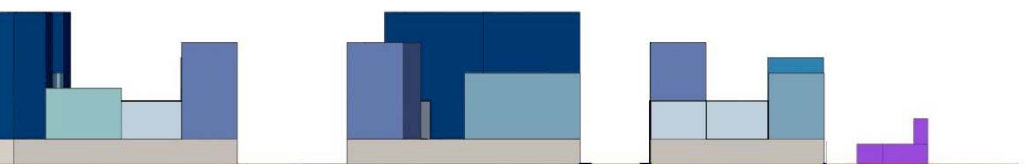
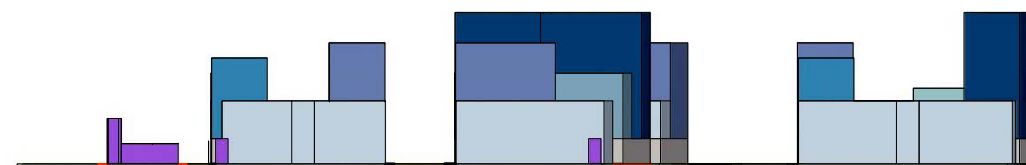
Draft Council Master Plan

Revised Proposal (Meriton)





Draft Council Master Plan



Revised Proposal (Meriton)

north

south

east

west

4.11 BUILT FORM DISTRIBUTION

The appearance of significant built form within the city when approaching and passing the site is a critical consideration.

The built form distribution of the Revised Proposal demonstrates a consistently denser and illegible elevation of built form.

The arrangement of built form should provide regular and meaningful breaks between taller elements to provide relief at the immediate, local and city-scale.

The aggregation of building bulk directly affects the amenity of residential environments.

Equitably distributing taller elements provides for greater prospect and longer views, increased visibility of sky and sunlight and ventilation through blocks, particularly at lower at lower levels.

The aggregation of bulk will make satisfaction of SEPP65 and Apartment Design Guide objectives more difficult, resulting in less urban and residential amenity.

RECOMMENDATIONS

5.1 PUBLIC DOMAIN STRUCTURE RECOMMENDATIONS

1 Complete the public street network

Complete the network of street reserves to form a complete and coherent network with no dead-ends, dedicated to Council. The definition of this network is primary to any traffic requirements which can be accommodated through design of the public domain within the holistic and connected network of reserves.

Whilst some streets may not allow traffic in some portions now, it is important the network is connective and flexible over time.

2 Orient the public street network to optimise solar access to public spaces

Orient the public domain structure to maximize the amenity of open spaces and primary street frontages at key times in the day and throughout different seasons. This should include solar penetration to public spaces between 11am and 2pm in mid winter, and courtyard spaces open to north-east to capture the prevailing breeze for cooling in summer.

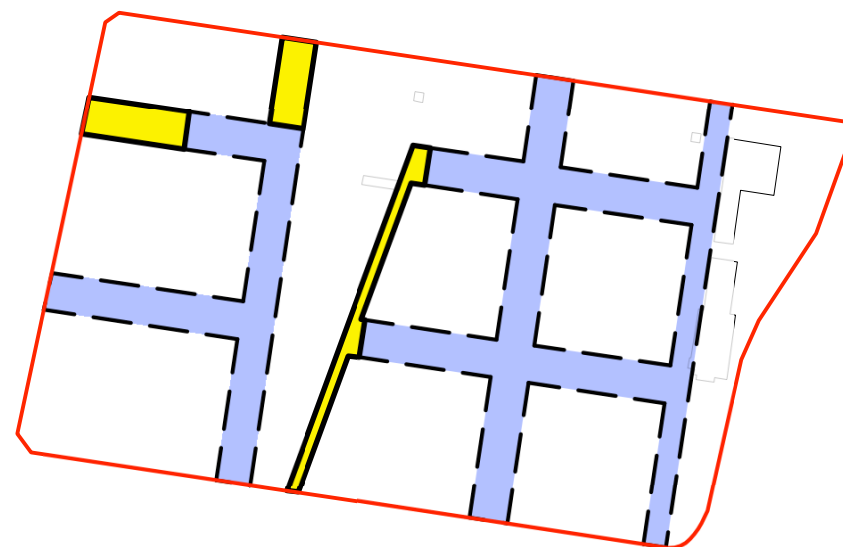
3 Make defined public parks and spaces

Define public open spaces with a connective street network.

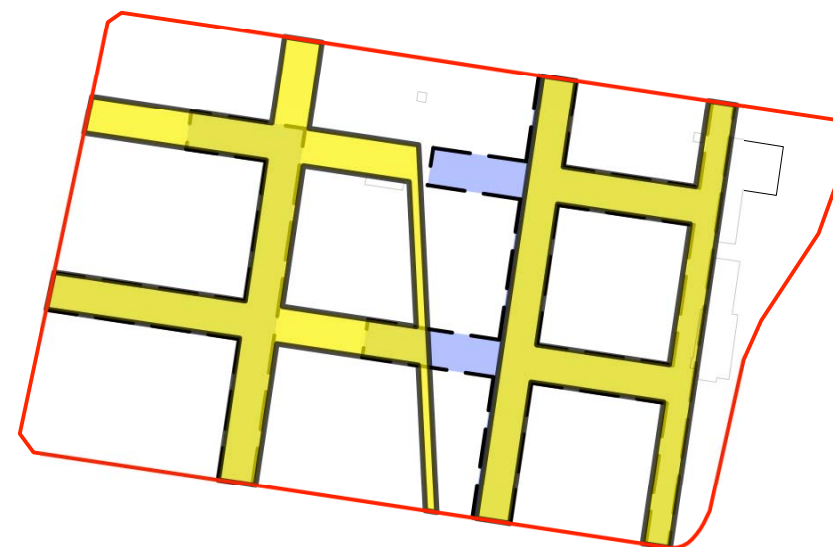
Balance the arrangement of streets, blocks and open space so that the majority of new buildings are located to the west of the site - away from the noise and pollution of Bunnerong Road, and between the new wedge park and the amenity of Bonnie Doon Golf Course and Mutch Park.

4 Retain and adapt additional historic and character elements

Retain, integrate and adapt as many existing buildings to maintain character, allow for non-residential and community uses and provide a buffer between Bunnerong Road and new residential development.



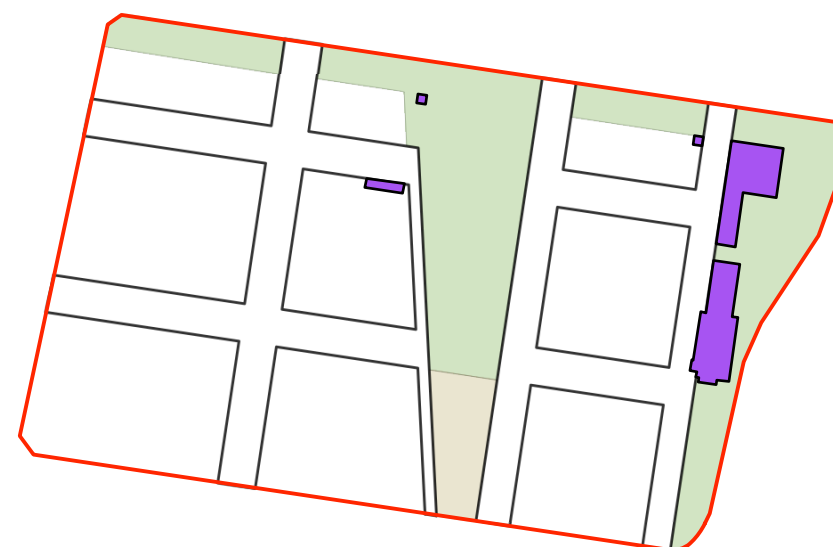
1. Complete the public street network
Revised Meriton street network shown blue



2. Orient the public street network to
optimise solar access to public spaces



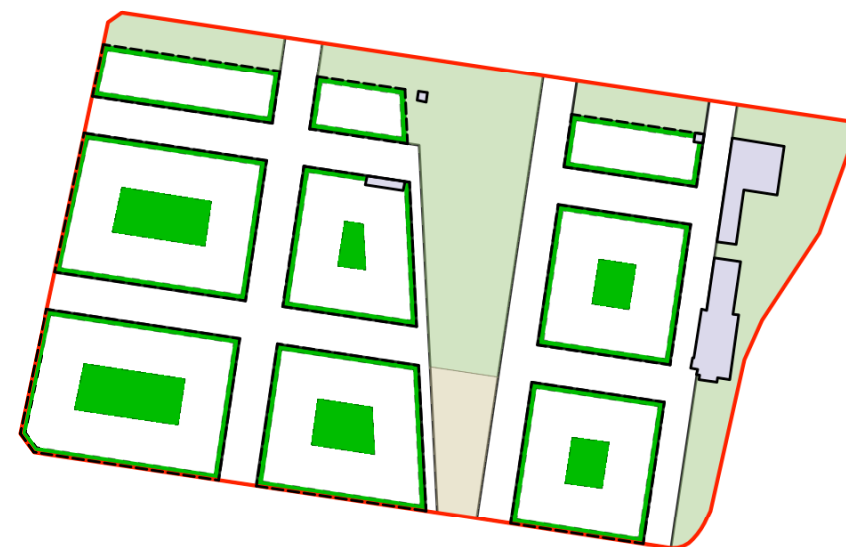
3. Make defined public parks and places



4. Retain and adapt additional historic element



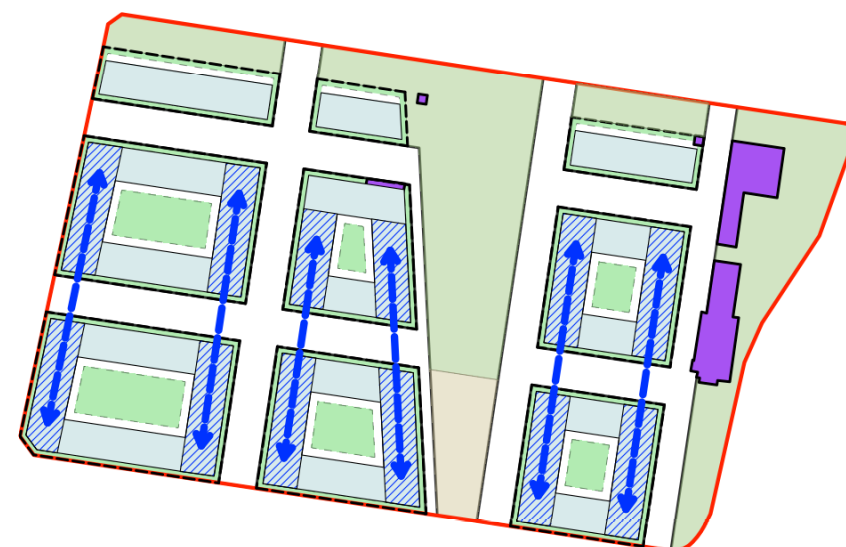
5.2 BUILT FORM RECOMMENDATIONS



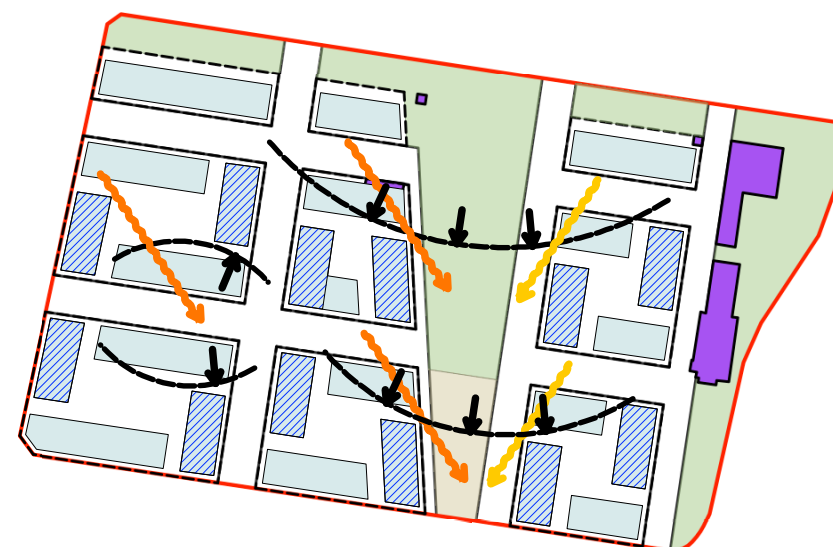
1. Integrate basement footprints to provide for unimpeded deep soil zones



2. Provide a street-based perimeter block type response at lower levels



3. Align and offset tower elements north-south to minimise overshadowing to the public domain and within blocks



4. Offset tower forms and create breaks to provide amenity, variety, outlook and relief

1 Integrate basement footprints to provide for unimpeded deep soil zones

Provide an arrangement within blocks which integrate car parking in basements primarily under built footprints that maximize unimpeded deep soil.

Provide significant landscape (large trees) at ground level to provide amenity, privacy and through block link opportunities.

Design central courtyard landscapes to provide environmental benefits such as relief of urban heat island and stormwater cleansing and catchment management.

2 Provide a street based perimeter block type response at lower levels

Limit the depth of perimeter block building envelopes (gross) to a maximum 18m to provide adequate separations and maximize opportunities to meet and exceed SEPP65 and ADG requirements.

Provide well located breaks in built form to limit the visual bulk along streets and provide glimpses into landscaped courtyards.

3 Align tower elements north-south to minimise overshadowing to the public domain and within blocks

Locate taller elements in a generally north-south orientation to limit the overshadowing impacts to other buildings and the public domain.

Distribute taller elements throughout the site with reference to amenity and park frontage to maximize the number of apartments receiving park and district views.

4 Offset tower forms and create breaks to provide amenity, variety, outlook and relief

Limit the footprint of all elements taller than 6 storeys to 750m² (gross) to provide visual relief, cross ventilation and solar penetration around and between towers.

Avoid clustering tall elements to prevent compression and overshadowing. Allow for relief and contrast so towers read as free elements.



5.3 PEER REVIEW MASTER PLAN RECOMMENDATIONS

This peer review takes account of the higher yields sought by Meriton's review of the Draft Council Master Plan and recommends:

- That the planning proposal as submitted should be revised to accord with the plan illustrated, left;
- That all streets (yellow) and parks (dark green) be dedicated to Council;
- That consistent street alignments and setbacks be provided throughout;
- That street frontages within each block provide a range of built form heights with clear unobstructed breaks between buildings;
- An increased maximum gross FSR of 2:1;
- That the maximum heights be distributed in accordance with the plan, left.
- Maximum building envelope depths of 18m;
- That all blocks should have deep soil planting to accord with the ADG (unimpeded);
- No above ground car parking be permitted, with visitor parking predominantly on street.

The adoption of the forementioned recommendations has the ability to create a best-practice model for urban renewal sites in Sydney.

Any revised proposal should be supported only through the demonstration of best practice urban design and architectural quality in line with Better Placed, SEPP65, Apartment Design Guide and other critical policies.



- New Street
- New Park/Open Space
- New square/plaza
- Heritage item retained
- Deep Soil Zones within blocks (no basements below)

Built form heights and dimensions as noted