

20 Shepherd Street, Liverpool

Proposed Adaptive Re-Use and Mixed Use Development
DRAFT Building Height Study

For: Coronation Property Co Pty Ltd
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Contents

1.0	Introduction	5
2.0	Site analysis + principles	7
3.0	Liverpool centre: building heights strategy	13
4.0	Tower strategy for the site	21
5.0	Recommendations	25



1.0 Introduction

This Building Height Study has been prepared by Architectus for Coronation Property Co. Pty Ltd in support of a development application for adaptive reuse and mixed use development at 20 Shepherd Street, Liverpool, which is currently being considered by Liverpool Council and the Joint Regional Planning Panel.

The strategy for the site is to redistribute the permissible floor space on the site to create a tall tower which allows for the retention of the heritage-listed industrial building and the creation of new public space in front of the heritage building and along the edge of the Georges River. The Development Application (DA), being DA1011/2014, seeks a variation to the maximum 24 metre height limit of 29.27 metres, with a proposed tower at the north-east corner of the site being 53.27 metres in height.

This Study has been prepared to assess the proposed building heights and significant departure from the permissible heights under the LEP, in the context of the immediate surrounds and the Liverpool City Centre.

Development consent is sought for:

- Demolition of existing structures;
- Adaptive re-use of a local heritage listed Woollen Mill building;
- Construction of two residential towers ranging in height from five to 16 storey above two basement parking levels;
- Site landscaping works including construction of a publicly accessible forecourt at the corner of Shepherd Street and Atkinson Street, and communal open space works;
- Remediation of the site to make it suitable for residential uses;
- Associated site works including site drainage and services infrastructure;
- Public domain works to upgrade and embellish the river foreshore at 2 and 5 Atkinson Streets.

The subject site has an area of 9,873m², is located on the fringe of the Liverpool Centre and overlooks St Georges River.

Key planning controls are:

- The site is within the Liverpool City Centre (Liverpool LEP 2008)
- Zoned R4 High Density Residential
- A maximum FSR of 2.5:1
- A maximum building height of 24m.
- Clause 4.6, Liverpool LEP 2008 allows for consent to be granted for development that exceeds the development standards (including building height) where conditions are met.

The proposed development generally complies with the planning controls (including the maximum FSR control), with the exception of the maximum building height.

On the advice of the Joint Regional Planning Panel (JRPP) and the Urban Design Review Panel (UDRP), this Urban Design Study considers alternative options for the built form and distribution of height across the subject site, and provides justification for the preferred development outcome.

This Building Height Study should be read in conjunction with the DA documentation submitted, including the Architectural Drawings, Landscape Plans, Planning documentation and other specialist reports and plans.

As suggested by the Joint Regional Planning Panel (JRPP) and the Liverpool Urban Design Review Panel (UDRP), this Urban Design Study:

- Provides an analysis of height and built form trends in the context of the Liverpool City Centre and the broader area around it;
- Illustrates the alternative options for the distribution of height and floor space on the site; and
- Provides justification for why the proposed development is the most appropriate development outcome for this site.

This report is structured as follows:

Section 2: Site analysis, which provides a strategic context overview, an analysis of the sites in context of Liverpool City Centre and the urban renewal precinct surrounding it.

Section 3: Liverpool Centre building heights strategy, which provides an analysis of height of planned and approved development in Liverpool, and the height of other comparable centres in Sydney.

Section 4: Tower strategy for the site, presents tower location options investigated for this site, including a complying development scheme, and provides an assessment of each option.

Section 5: Recommendation.



Photomontage of the proposed development at 20 Shepherd Street, Liverpool, by Woods Bagot Architects



2.0 Site Analysis + principles

Site analysis

The subject site is located within an urban renewal precinct made up of industrial properties that have been zoned for high density residential development. This site is the first to be subject to a residential development application, and is the northern most site within the precinct.

Immediately north of the site is a complex of three storey residential apartments above at-grade garages. The interface between the sites is Atkinson Street, with large trees of 6-12 metres in height at the northern side of Atkinson Street.

The Georges River foreshore bounds the site to the east. The foreshore land is currently inaccessible due to unmanaged vegetation. On the eastern foreshore of the river is vegetated parkland, which provides a buffer between the river and the industrial lands beyond.

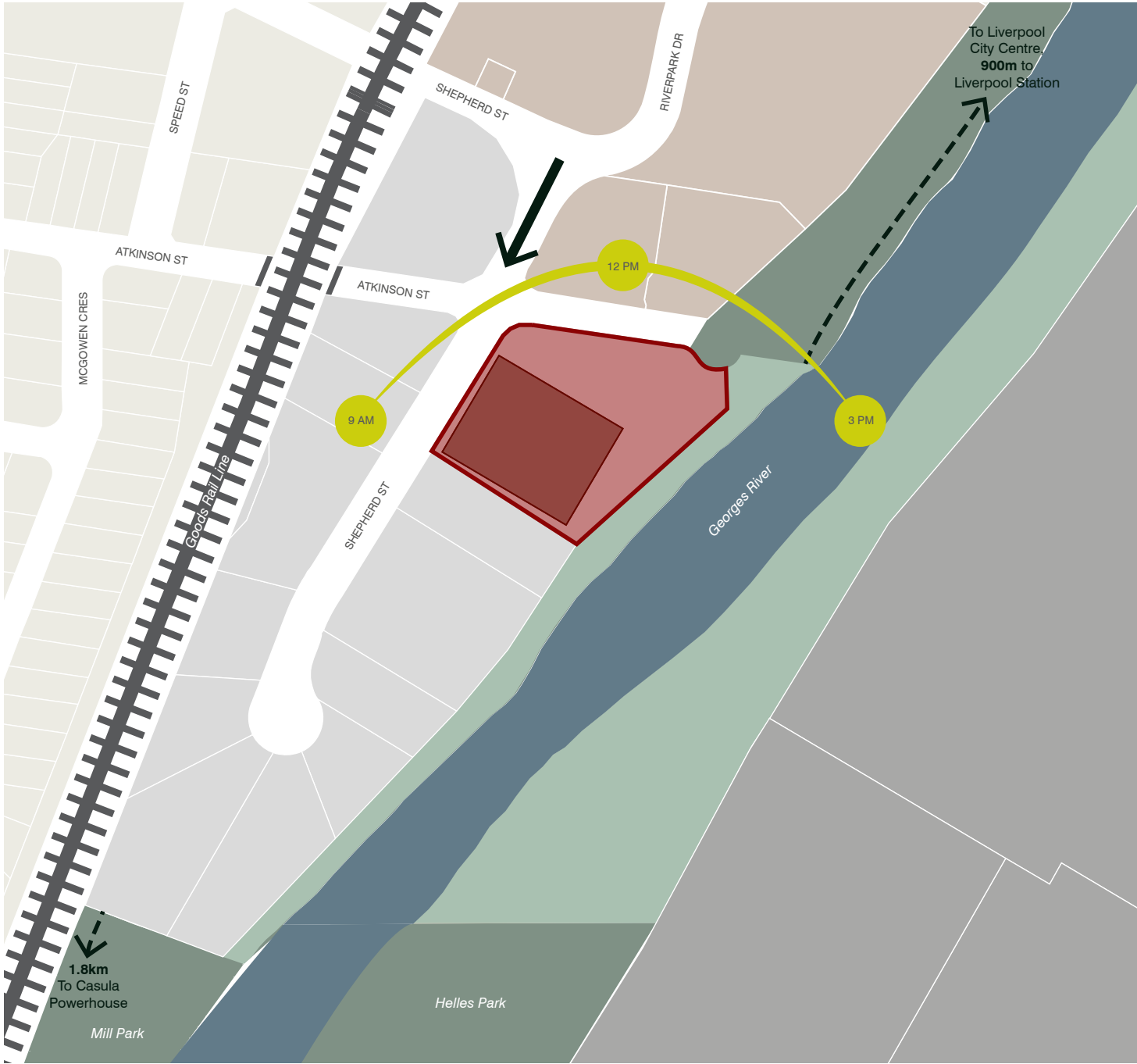
South of the site is 26 Shepherd Street. This site is an operational car yard, used for the storage of vehicles. Industrial sites are located further south.

To the west of the site, opposite Shepherd Street, is warehouse development which includes mezzanine office space. West of this property is the Liverpool to Campbelltown passenger railway line and the Southern Sydney Freight Line.

Shepherd Street is currently the only road connection available for access to the Casula Powerhouse, giving greater prominence to the site for vehicles travelling to and from the Powerhouse.

Legend

- Site
- Local Heritage-listed Woolsheds
- Light Industrial Use - Zoned for residential use
- Goodman Sites - Industrial land under investigation for renewal opportunities
- Three Storey 'Walk-ups'
- Existing Residential
- Green Space
- Landscaped Green Space
- River
- Pedestrian Links
- Main Site Access
- Rail Line
- Sun Path










2.0 Site analysis + principles

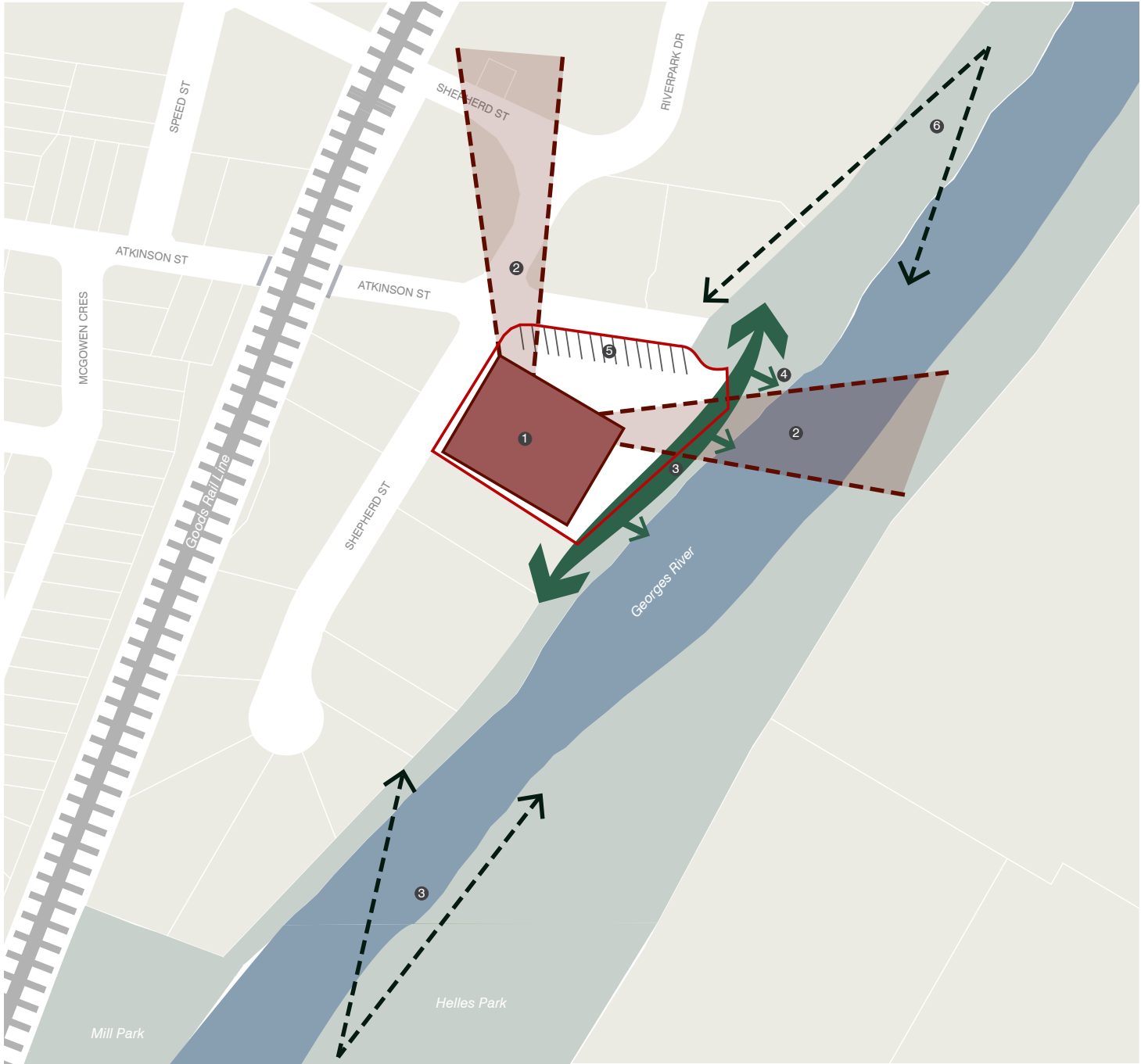
- 1 Retain and restore the heritage building for commercial uses that allow the community inside the building.
- 2 Maintain a visual connection to the heritage building from the river and main entry.
- 3 Provide a landscaped edge to the river and extend the pedestrian connection.
- 4 Design building to address and activate the river and take advantage of views,
- 5 Built form should provide a transition from the 3-storey residential buildings to the taller built form permitted to the south.
- 6 Consider the impact on key public views: towers should be slender from these angles and gaps in buildings should provide low angle views.

Legend

 Site
 Local Heritage-listed Woolsheds
 Green Space
 River
 Rail Line

KEY CONSIDERATIONS

The site's conditions and the opportunities presented by the heritage items and relationship with the river set up a clear structure for the site. The development footprint should be shaped by views corridors to the heritage building and the built form should maximise views to the river.



2.0 Site analysis + principles

Precinct analysis

The subject site is located within the Liverpool City Centre Zone. It is situated in an urban renewal precinct of industrial properties zoned for high density residential uses.

This part of Liverpool City Centre is unique in that it is currently the only precinct to allow for development to truly embrace the city's river frontage. The strategy to face the river, create continuous foreshore access and renewal along the river is central to the vision for Liverpool.

The site is situated 800 metres from Liverpool Railway Station, and in similar proximity to the services and amenities provided within the Liverpool City Centre.

To the south of the urban renewal precinct in which the site is situated, is the Casula Powerhouse, Liverpool's premier arts and cultural facility. The Shepherd Street precinct is the missing link in the pedestrian connection between the city and the Casula Powerhouse.

There are a limited number of heritage items in Liverpool Centre, particularly items that tell the story about the historic relationship between industry and the river.

Legend

Institutional

Retail/Commercial

High Density Residential (R4)

High Density Residential (R4)

Open Space

Waterway

Liverpool City Centre

KEY CONSIDERATIONS

- The site is within 800m of the station (a comfortable walking distance) and therefore the density on the site should be maximized, subject to design and site constraints.
- Any proposal for the site should prioritise delivery of the new pedestrian path on the foreshore and the quality of the public spaces.
- The heritage listed Mills should be adaptively reused to allow for public appreciation of the building and ensure the building maintains a visual connection with the river.



2.0 Site Analysis

Strategic Planning Context

Under the ‘A Plan for Growing Sydney’ Metropolitan Plan released by the NSW Government in 2014, Liverpool is identified as a Regional City. It is also within the Bankstown Airport to Liverpool Enterprise Corridor, a focus for new economic activity.

Together with Campbelltown, Liverpool forms a primary centre and focus for housing and employment within Sydney’s South West subregion.

The key applicable priorities for Liverpool and the South West Subregion are:

- Accelerate housing supply, choice and affordability and build great places to live.
- Provide capacity for additional mixed use development in Liverpool including offices, retail, services and housing.

Whilst the draft Subregional Strategies are being prepared, the former subregional strategy for the South West Subregion also proposes Liverpool as a ‘regional city’. Key priorities within the draft Subregional Strategy for Liverpool sort to open up connections to the river front from the City Centre and provide increased opportunities for housing and employment within the City Centre.

Strategically, Liverpool is the closest key centre in Sydney to the planned Badgerys Creek Airport, Sydney’s second major airport. This will enhance job opportunities and economic activity within the Liverpool Local Government Area, and support State wide objectives to provide jobs closer to homes.

The proposed development is considered to support the strategic planning context of the site by:

- Providing new opportunities for high density housing, close to Liverpool Railway Station, transport services, retail and amenities;
- It is the first site within the Liverpool City Centre to be developed that provides real opportunity to create a dialogue between the urban city centre and the river foreshore; and
- It supports the acceleration of housing supply whilst also providing an environment with high amenity.

KEY CONSIDERATIONS

- From a strategic planning perspective, the site is an excellent site to accommodate high density development.





3.0 Liverpool centre: building heights strategy

The market for development in Liverpool is strong, and Council are generally supportive of higher densities where they present a good built form outcome and provide public benefit. As a result, there have been a number of recent approvals in the centre for buildings up to 29 storeys.

The building typology in the centre is evolving as a dense, urban centre, which is appropriate given its Major Centre status at metropolitan level. In appropriate centres, built form can be dense and very urban, but the impacts of this density must be mitigated through quality, sunlit public domain, services and infrastructure and high quality architectural design.

The purpose of this section of the report is to:

- Investigate the height of buildings being approved in the centre, to gauge the building typologies that are supported by Council and the JRPP; and
- Provide some broad principles for the organisation of tower buildings in the centre.

3.0 Liverpool centre: building heights strategy

Liverpool City Centre - recent development and approvals

The plan to the right shows where significant new development has been either constructed, approved or is under consideration. The opposite page provides details for each development site identified on the plan.

In addition to the sites shown on the plan, it is also understood that Liverpool Council are in the process of reviewing both the land use and built form controls for sites in the Liverpool Centre. The objectives of this current work is to create quality fine-grain public spaces, allow for more density and more residential uses in appropriate locations and consider centralised car parking.

Liverpool Council have completed a number of public domain and revitalisation strategies over the last two years, which aim to ensure that the quantum and quality of public space is consistent with the vision for Liverpool as a successful Regional Centre and significant location for investment and development.

Legend

- Site
- Development Application
- Development Application-under assessment
- Planning Proposal
- Key Green Space
- Green Space
- River
- Rail Line
- Roads
- Train Station

KEY CONSIDERATIONS

Development for towers of over 24 storeys and a Planning Proposal for unlimited building heights (anticipated height is up to 40 storeys) in the centre confirm Liverpool's status as a dense urban centre, and Liverpool Council's commitment realising the vision for Liverpool as a Regional Centre.



3.0 Liverpool centre: building heights strategy



1. 133 BIGGE STREET, LIVERPOOL
A Planning Proposal for the land bound by Elizabeth Street, Bigge Street, Liverpool Local Court, and George Street has been supported by Council for progression to Gateway Determination. The Proposal seeks to amend the Liverpool LEP 2008 to allow for mixed uses, a maximum FSR of 10:1 and unlimited building height. The concept plan submitted with the Planning Proposal shows that 35-40 storey development would be achievable under the proposed controls.
Status: On public exhibition



2. 54-56 MACQUARIE STREET, LIVERPOOL
Development Application: 9 storey mixed-use development. Commercial development on the ground floor and 53 residential units with associated basement parking
Status: Approved ✓



3. 420 MACQUARIE STREET, LIVERPOOL
Development Application: Staged mixed use development - 438 residential apartments, 376m² of commercial/retail tenancies and communal facilities within 2 x 29 storey towers (Buildings A and C) and 1 x 6 storey residential flat building (Building B) including below and above-ground car parking for 507 cars, landscaping and open space works;
Sydney West Joint Regional Planning Panel is the Determining Authority for this Application
Status: Approved



4. 34-40 HUME HIGHWAY, WARWICK FARM
Development Application: Section 96(1A) application to modify DA-189/2013, which approved the construction of a residential flat building containing a total of 113 residential units with basement car parking and site landscaping. DA Lodged 14/07/2014.
Status: Approved ✓



5. 6-8 GEORGE STREET/45-47 LACHLAN STREET, WARWICK FARM
Development Application: construction of residential flat building comprising of two 8 storey tower buildings. DA lodged 12/12/2014
Status: Application Being Assessed



6. 311 HUME HIGHWAY, LIVERPOOL
Rezoning Application: change from B6 enterprise to B4 high density. DA lodged 15/01/2015
Status: Registered
Development Application: Alteration and additions to the approved mixed use building to provide an additional 32 units such that 125 units are provided at the site; reduction of overall building height, removal of multi-level units, change of use of conference rooms, commercial suites and fitness centre to residential units, removal of ground floor shop tenancies. DA lodged 26/06/2014
Status: Withdrawn



7. 1-3 BIGGE ST, LIVERPOOL
Development Application: Construction of two residential towers, 14 and 15 storeys consisting of 185 units with two levels of basement car parking. DA 1263/2013.
Status: Constructed



8. 10 NORFOLK STREET, LIVERPOOL
Development Application: Section 96(2) application to modify DA-454/2006, which approved a mixed use building with basement parking - including two levels of retail, five levels of parking, twenty four stories of residential units consisting of 258 units (211 two bedroom units, 39 one bedroom units and 8 three bedroom units). DA Lodged: 06/08/2014
Status: Further Information Requested by Council

3.0 Liverpool centre: building heights strategy



Urban Activation Precincts

The Urban Activation Precincts / Priority Precincts program seeks to provide additional density and capacity in appropriate centres across Metropolitan Sydney. The scale of development allowed in the selected Precincts is shown below:



North Ryde Station

- Building heights between 33 and 99metres (up to 33 storeys).
- FSR between 1 and 3.5:1.



Carter Street Lidcombe

- Proposed building heights between 15m (4storeys) and 64m (20 storeys).
- Proposed FSR between 1.5 and 2.0:1.



Wentworth Point

- Building heights from 4 to 25 storeys.
- Proposed FSR to 2.6:1.



Herring Road Macquarie Park

- Proposed building heights from 45m (14 storeys) to 120m(37 storeys).
- Proposed FSR between 2.5 and 4.5:1.



Epping Town Centre

- Building heights between 48m and 72m (approximately 15-23 storeys).
- FSR between 4.5 and 6.0:1..

3.0 Liverpool centre: building heights strategy



Regional Centre + Major Centres

Regional Centre + Major Centres typically have high densities and building heights of 20 - 40 storeys+.

Better quality high rise design and better quality public domain are important in ensuring the livability of these centres in the long-term.



Parramatta

– A recent review of the controls by Parramatta Council recommended the removal of maximum building height controls in the CBD, with expected development between 35-40 storeys. ‘Aspire’ Planning Proposal is for 90 residential storeys (pictured)



Chatswood

– Building heights from 8 to 35 storeys



Bondi Junction

Building heights from 8 to 25 storeys.



Green Square

– Towers in the Green Square Town Centre are up to 28 storeys. In the majority of the wider Green Square Renewal Area, lower perimeter blocks and tall, slender buildings marking corners and providing landmarks is the adopted typology.



St Leonards

– Building heights from 8 to 40 storeys.



3.0 Liverpool centre: building heights strategy

Liverpool City Centre - Built Form Strategy

This section provides principles for density and built form in different areas of the Liverpool Centre.



Liverpool City Centre - Core (B3 Zone)

- 30 + storeys on large sites, where design excellence is achieved.
- Height limited by air services only (max. 110-120m in the center)
- Podium/ tower typology, with defined street wall heights that create a good pedestrian environment
- Civic open spaces
- Active edges and fine grain



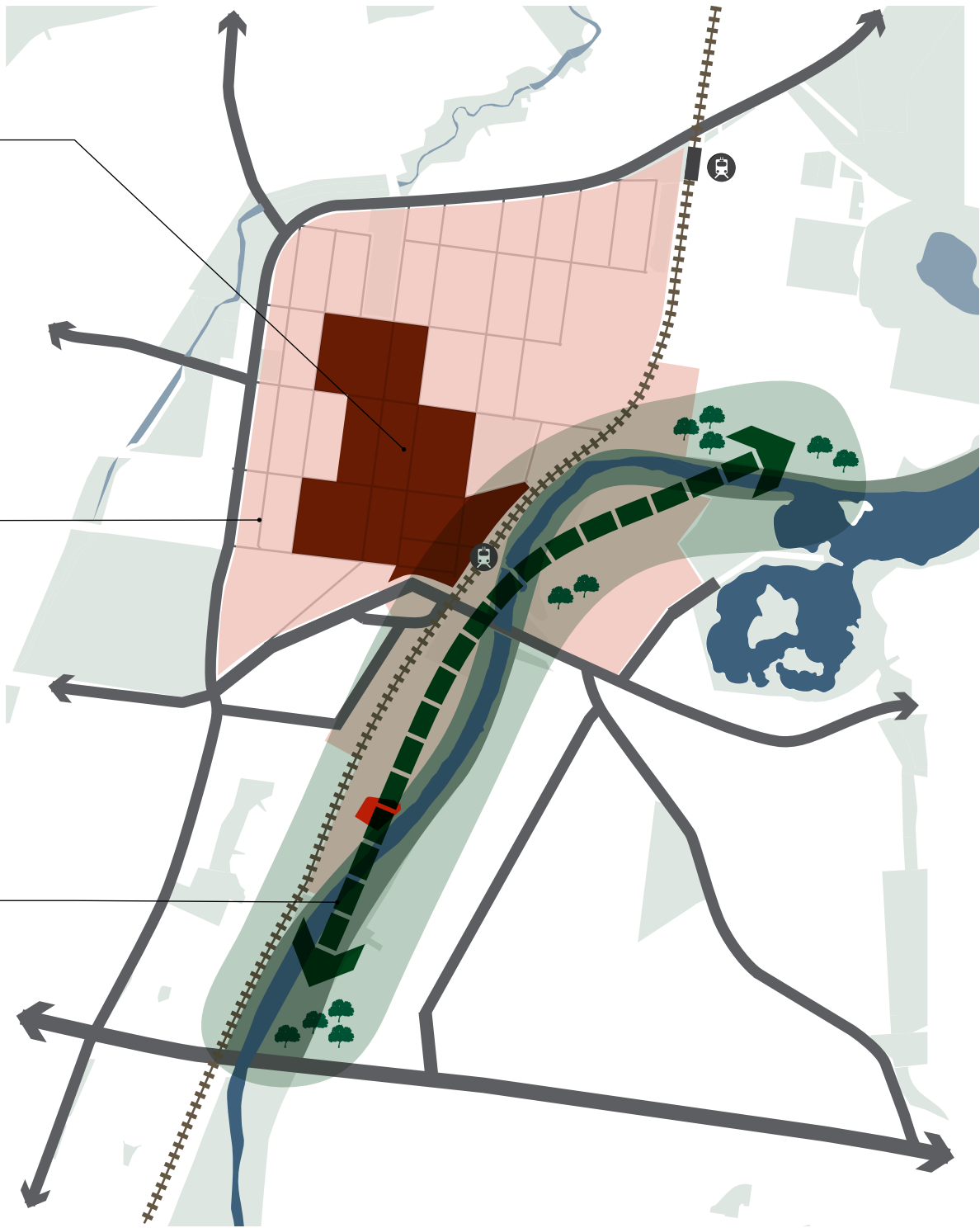
Liverpool City Centre – Outer Ring

- 30 + storeys on large sites where design excellence is achieved.
- Height limited by air services only (max. 110-120m in the center)
- No podiums – allows for through-site-links / permeability and landscaping
- Greener public domain and open spaces for residents



River Precinct – sites with direct river access and which provide new public domain

- One tower building per site, on sites larger than 5,000 sqm.
- Use towers for legibility and to punctuate corners - identify the location open space, primary road routes and the entry to significant sites.
- The primary strategy for the river is to provide access and quality public domain alongside the river. Built form should support this strategy - lower perimeter buildings provide a good edge to the public domain, and taller, slim (floor plates of 700-1000sqm GFA) well-spaced (60m apart) towers can punctuate the built form in locations that provide legibility, maintain solar access to the public domain, views, and low-angle views of the sky between buildings.





4.0 Tower strategy for the site

The proposed location of the tower was the result of detailed testing of various built form options for the site. In summary, there are three main options, each of which are assessed in this section.

The preferred tower location (Option 3 - North-east tower) provides the best outcome for the public domain, the amenity of the buildings and relationship with the heritage-listed building.

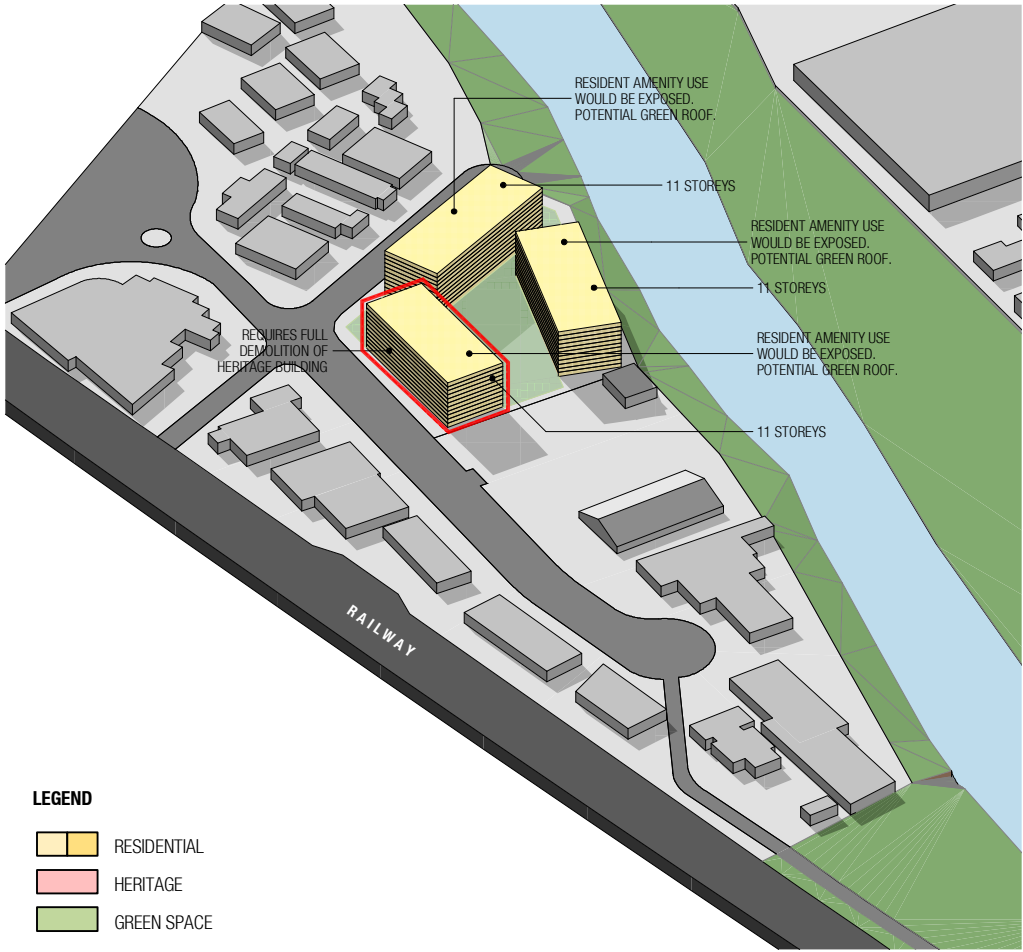
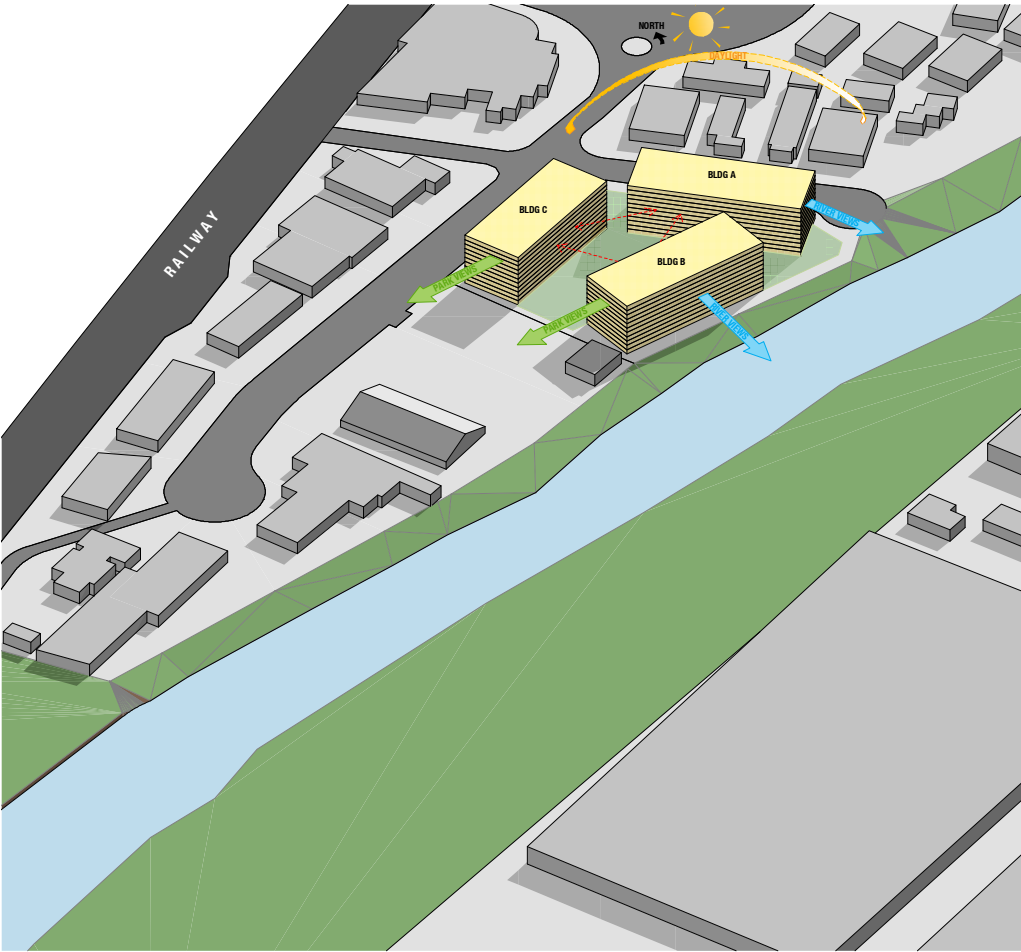
Option 1 - Complying heights/ demolish heritage item

Advantages

- ✓ Large communal open space at the centre of site.
- ✓ The 11 storey buildings generally complies with the height controls and achieves the maximum FSR.

Disadvantages

- Requires full demolition of the heritage building. This would be a significant loss to the precinct.
- No variation in building heights - built form is relentless. This typology can be experienced in areas like Crown Square in Zetland, where the scale is overbearing. This would be a poor built form outcome, particularly if this typology is adopted for the remaining sites in the Shepherd Street precinct.
- A continuous 11 storey street wall is not a good scale for the edge of the public domain and has an adverse impact on the quality of the river-side public domain and the communal open space.
- The 11 storey height on the northern boundary of the site does not provide a transition to the 3 storey development to the north.
- This option does not provide any significant public open space, with the exception of public access on the river foreshore.
- The built form does not maximise views to the river - most views are into the centre of the site and towards other buildings.
- The built form does not provide any legibility for visitors - missing the opportunity to use built form to mark the entry to the precinct the location of public domain.



Massing diagram for Option No. 1 Source: Woods Bagot

4.0 Tower strategy for the site

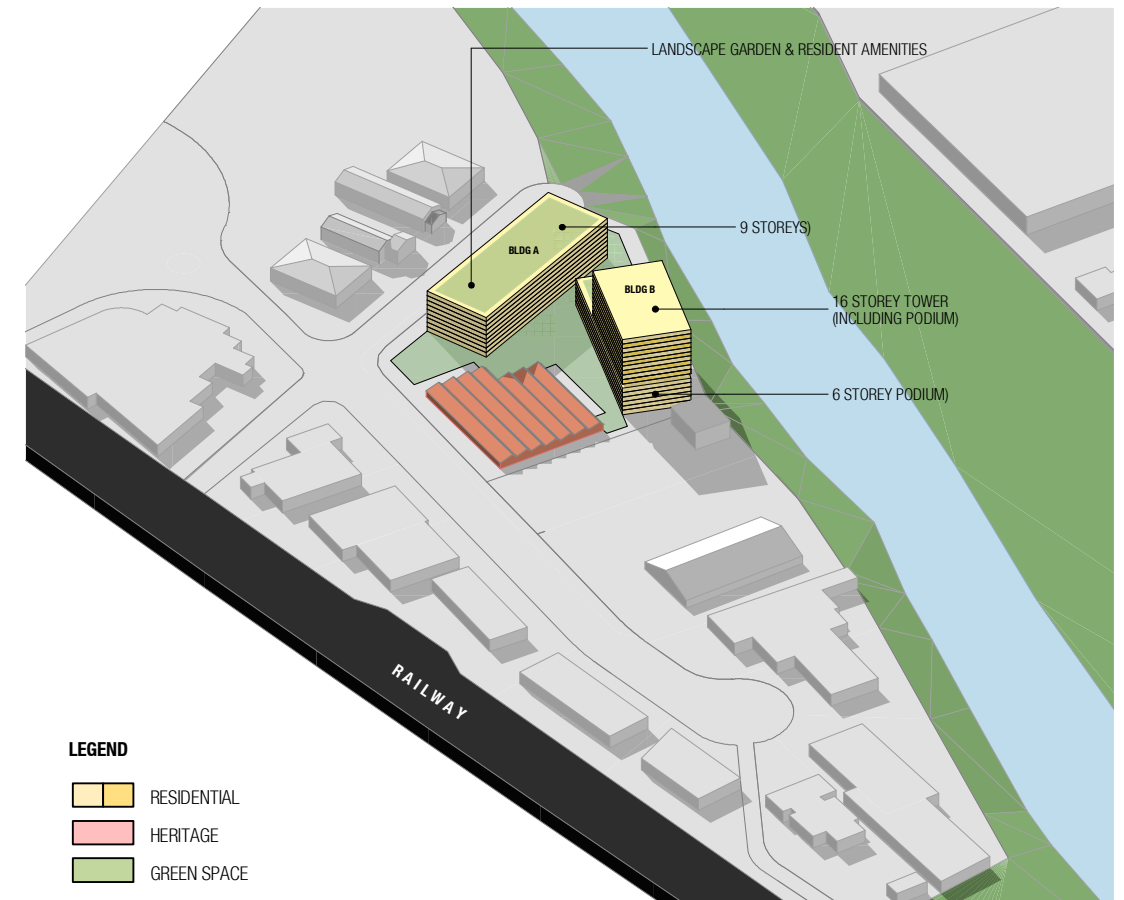
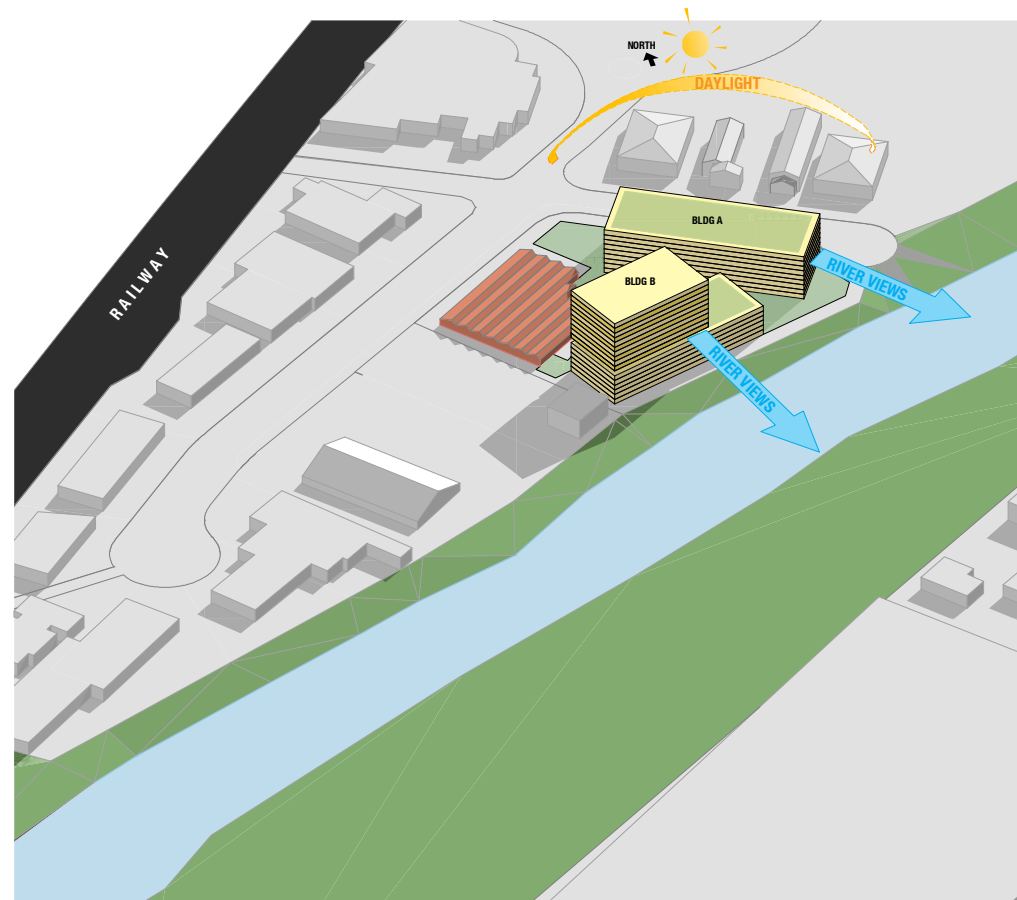
Option 2 - Tower in the south-east corner

Advantages

- ✓ Allows for the retention and adaptive reuse of the heritage-listed building.
- ✓ Allows for the creation of a public plaza in front of the heritage item, giving the Mills an appropriate setting and allowing views to the Mills.
- ✓ Provides for a lower street wall on the northern boundary and a more gradual transition in height to the existing three storey residences to the north.
- ✓ Significant river views for the residents of the tower, however views from other buildings are limited.

Disadvantages

- The tower in this location is too close to the adjoining property to the south and would have a significant impact on the capacity of that site to achieve the permissible FSR of 2.5:1. It is unlikely that the SEPP 65 minimum separation distance of 24m could be achieved.
- A tower in this location also overshadows the site to the south more than when compared to the shadow cast by the proposed scheme.
- The tower in the south-east corner of the site provides for a stark relationship with the heritage item.
- The scale of the tower at the rivers edge is not a comfortable pedestrian scale, although the introduction of a lower street wall and tower setback could improve this interface.
- The tower does not serve as a landmark signaling the entry to the precinct.



Massing diagram for Option No. 2 Source: Woods Bagot

4.0 Tower strategy for the site

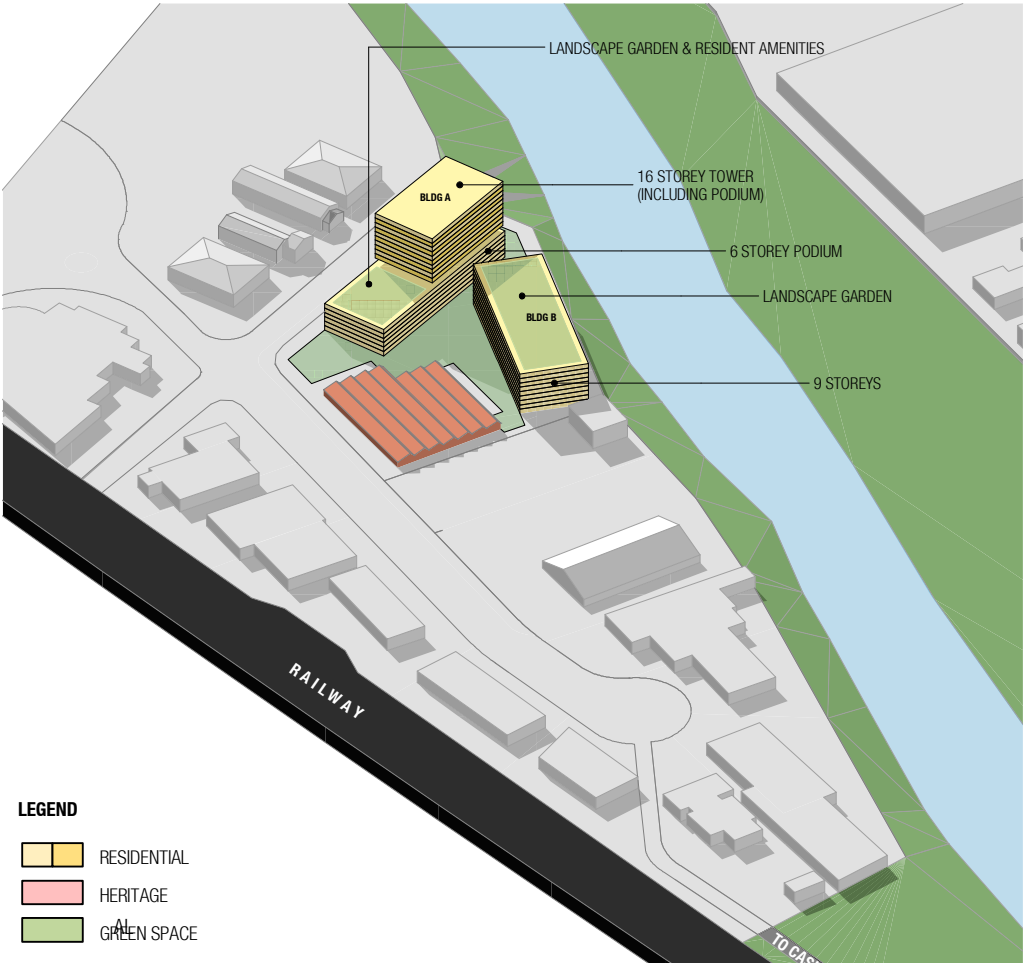
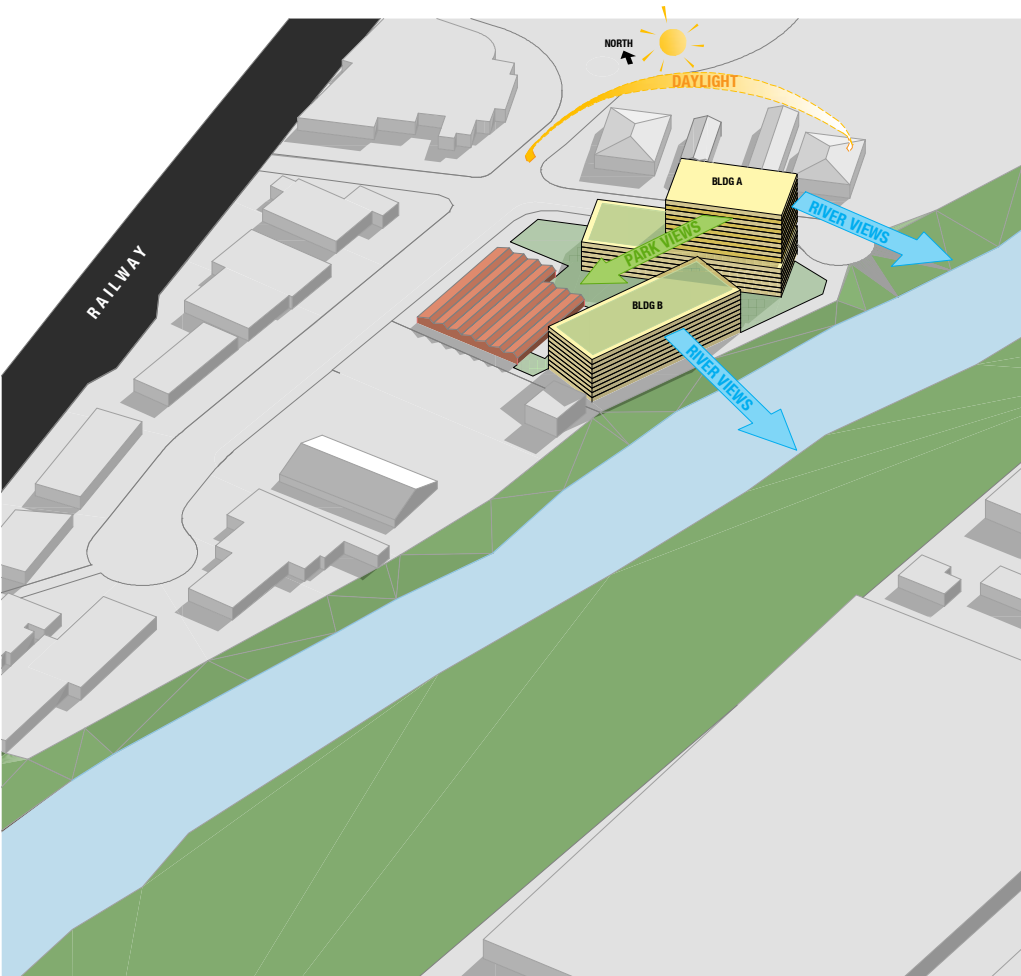
Option 3 (Proposed) - Tower in the north-east corner

Advantages

- ✓ Allows for the retention and adaptive reuse of the heritage-listed building.
- ✓ Allows for the creation of a public plaza in front of the heritage item, giving the Mills an appropriate setting and allowing views to the Mills.
- ✓ Maximizes river views.
- ✓ Creates a low-scale edge to the river foreshore - maximizing solar access and providing a pedestrian scale.
- ✓ The low-scale backdrop to the heritage item, when viewed from the street and the plaza provides a good setting for the building
- ✓ The tower acts as a landmark to the entry of the site and the public domain. It can be designed to appear slim when viewed from key public locations.

Disadvantages

- The tower on the northern boundary has the potential to be too dramatic a transition to the 3 storey development to the north. Careful design of the building and the inclusion of a lower street wall height and tower setback could mitigate the impacts. In the long-term it is reasonable to expect that the built form to the north would be redeveloped for higher density development and taller building heights. It is not a good strategy to unreasonably limit development on the subject site in order to ensure a more gentle transition to the north because this area is likely to change.



LEGEND

	RESIDENTIAL
	HERITAGE
	GREEN SPACE

Massing diagram for Option No. 3 Source: Woods Bagot



5.0 Recommendation

In conclusion, we are confident in recommending that a 19 storey building be approved on the site in the currently-proposed location, for the following reasons:

- Looking at the whole of the Liverpool Centre, its designation as a Regional Centre, its accessibility and considering the 40 storey development being anticipated in the centre, there is strong strategic justification for taller buildings on the subject site, which is included in the Liverpool Centre zone defined in Liverpool LEP 2008. Generally, as long as high density development is complemented by quality public domain and services, and achieves design excellence, development should be as dense as the site's individual constraints allow for.
- The proposed development, while seeking to vary the height standard by approximately 100%, is not an overdevelopment of the site. The development complies with the maximum FSR of 2.5:1. In this case, the floor space has been redistributed to a tower to allow for the retention and adaptive reuse of the heritage listed Woollen Mills, the creation of a plaza and a linear open space adjoining the river and lower street wall heights adjoining the river. The trade-off for the additional height far outweighs the impacts of the height in this location, which is in the city centre.
- Regarding the location of the tower on the site, this study demonstrates that the proposed location is the best location for additional height. The tower in the north-east corner of the site marks the edge of the Shepherd Street renewal precinct and signposts the location of the new public domain and any future retail uses in the adapted heritage building. It also minimises impacts on the adjoining land to the south and reserves their ability to achieve a similar density with adequate tower separation.

On this basis, Architectus is pleased to recommend that the proposed development of 20 Shepherd Street be approved.