144-154
PACIFIC HWY
NORTH SYDNEY

AJ+C
ALLEN JACK+COTTIER

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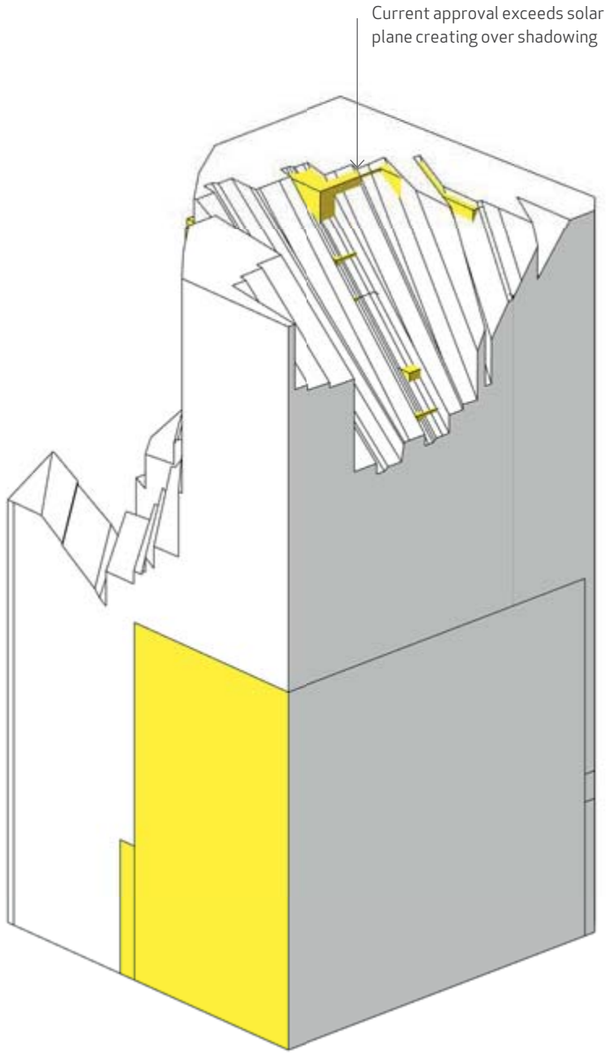
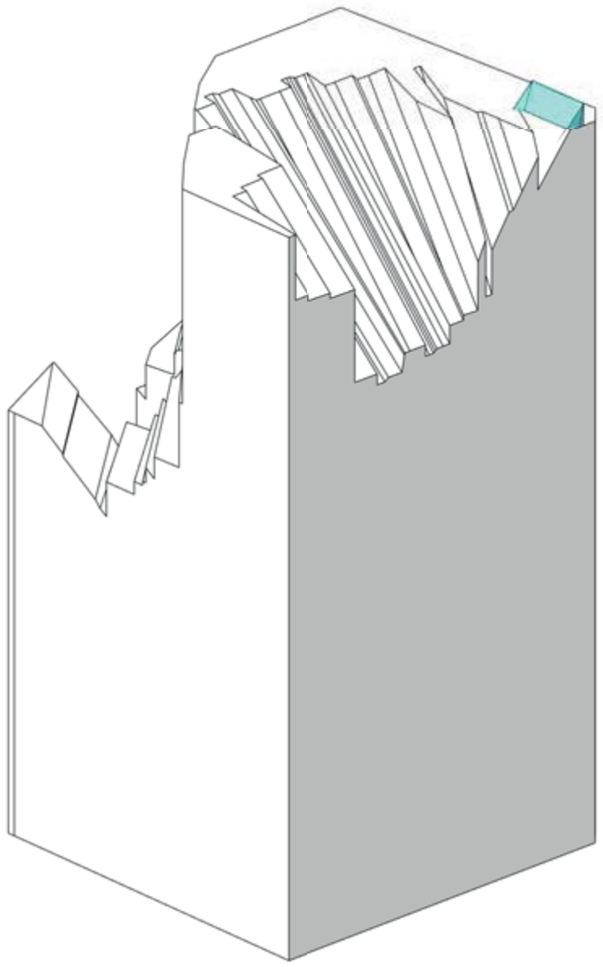
#14013 Fuji
22 October 2014



APPROVED



PROPOSED

INTRO / BACKGROUND

Allen Jack+Cottier (AJ+C) was approached by Fuji Developments to review the approved DA for 154 Pacific Highway, designed by NT Architects.

AJ+C has been working with Fuji on another project, 30 Alfred Street, in a similar way ie reworking a new Section 96 application on an approved DA.

AJ+C reviewed the original application for 154 Pacific Highway, the controls, the Council objections and the final approval through the LEC.

The approved DA had some significant inefficiencies in its planning, split lift cores, an excessive ramping configuration to gain access to the basement parking and large areas of underutilized floor space.

The building form did not sit well with its context in terms of street wall/podium heights, particularly in Berry Street. Also the eroded nature of the west and south-west elevations to comply with solar access requirements seemed unstructured, unresolved and unsatisfactory.

The principles guiding this Section 96 submission have been:

+ A building that better integrates into its local context by relating to the street wall heights established by existing developments.
+ Refining the character and massing of the building to
  - simplify its form
  - diminish its bulk
  - celebrate its corner location
  - add value to the North Sydney urban environment.

To improve the design of the internal configuration of the core, stairs and circulation to improve the amenity and functional quality.

+ To improve the design quality of the apartments by reducing internal circulation
+ maximising location/orientation opportunities, functional furnishable spaces
+ maximising the SEPP 65 requirements.

Key to this Section 96 submission is the angled building plane to the south-west over Berry Street. As has been discussed, this plane is a direct result of the reverse engineered solar plane. It established a geometry and character to the building. This has developed as 'crystal……' or faceted character.

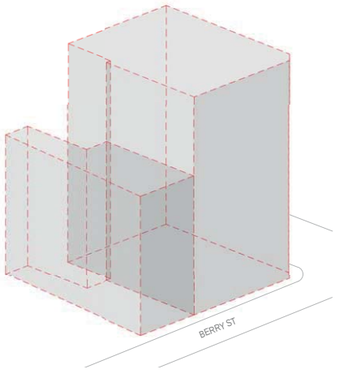
The apartments within this angled form have 'carved out' balconies and window openings looking south-west to the Harbour, the incline aiding in solar access to the apartments. Gutters aligning with the floor levels will collect rainwater as it runs down this roof/wall. Storage areas will occupy these areas or spaces that are below 2.4 m headroom.As a result of the solar studies this inclined form has resulted in a significant improvement in environmental benefits over the current approved DA.

In partnership with Fuji, AJ+C set about redesigning the building to achieve a superior design and development outcome. in carrying out this process, our key objectives were:-

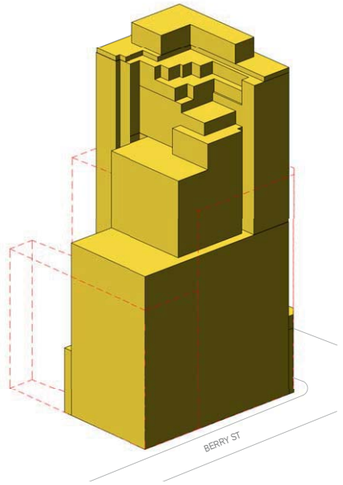
+ building design (external)
+ apartment design and configuration
+ residential amenity
+ minimising impact on the surrounding area (visual, solar access etc)
+ delivering a more appropriate and well resolved building mass and form.

AJ+C set about replanning the core and stair configurations as well as the ramp and basement areas below ground and conducting a rigorous analysis of the solar access requirements in terms of the overshadowing of the development.

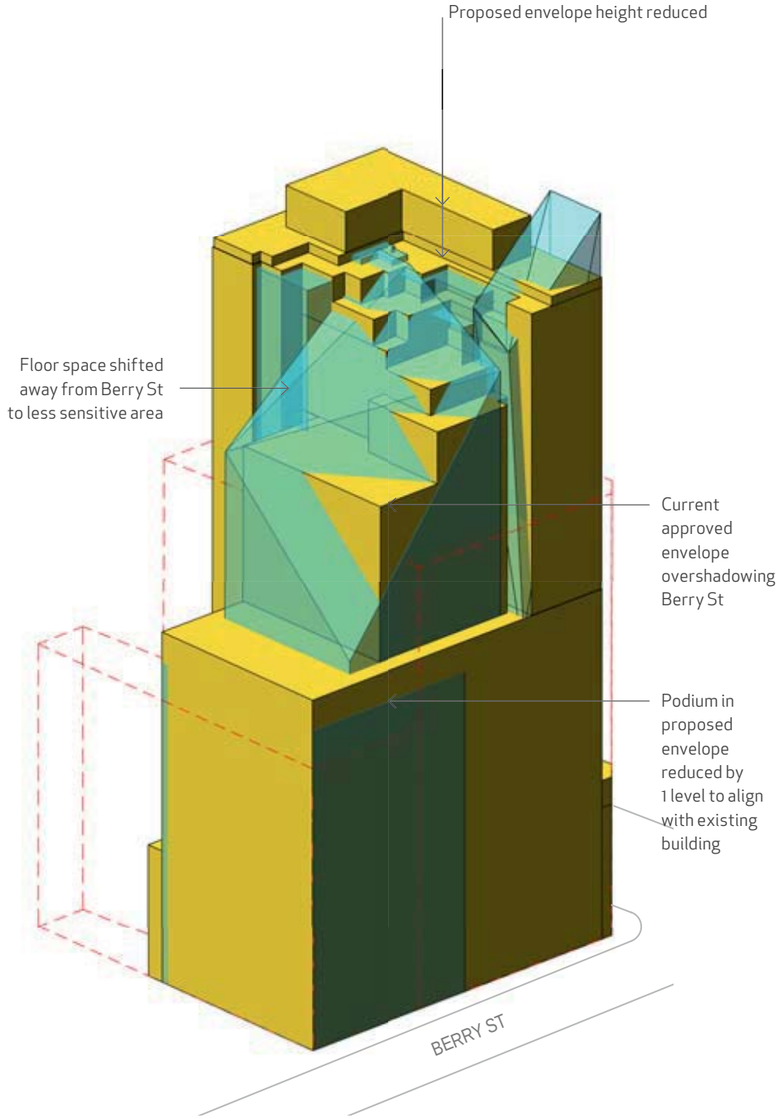
AJ+C 'reverse engineered' an optimum envelope to comply or improve on the solar access requirements established in the approval. In doing so we found some discrepancies between the approved envelope and the overshadowing.



LEP ENVELOPE



APPROVED ENVELOPE



OVERLAYED SCHEME

CRITICAL SOLAR PATHWAY

PROPOSED ENVELOPE RESPONDING TO SOLAR PATHWAY AND REMOVAL OF ZIGGURAT EFFECT

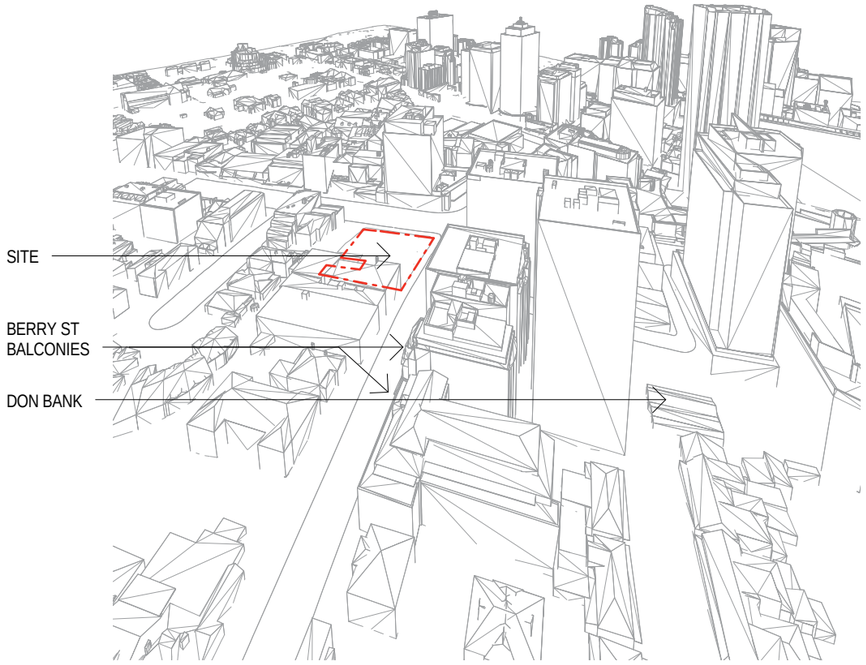
IDENTIFYING APPROPRIATE BUILDING ENVELOPE

This current submission proposes a shifting of the floor space within the solar envelope from the southern area of the approved DA envelope over Berry Street to a zone further north and west that is outside the approved DA envelope and above the current height controls for this area of the site.

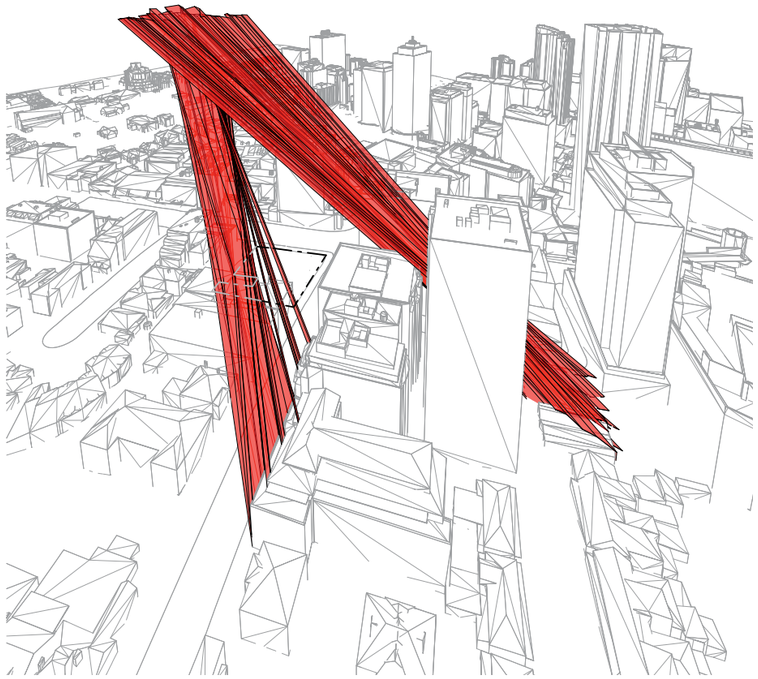
However, in doing so, it removes the same amount of floor space from the approved envelope in the south-west corner that dominates Berry Street.

On balance AJ+C considers that while the total residential floor space for the two schemes is approximately the same the design outcome is greatly improved and environmental impacts minimised when building mass is transferred away from Berry Street.

It does not affect solar access to neighbouring properties and the scale to Doohat Lane is not significantly different than the approved scheme. It does however significantly diminish the scale of the building and achieves a superior integration with Buildings Nos 12-16 Berry Street.

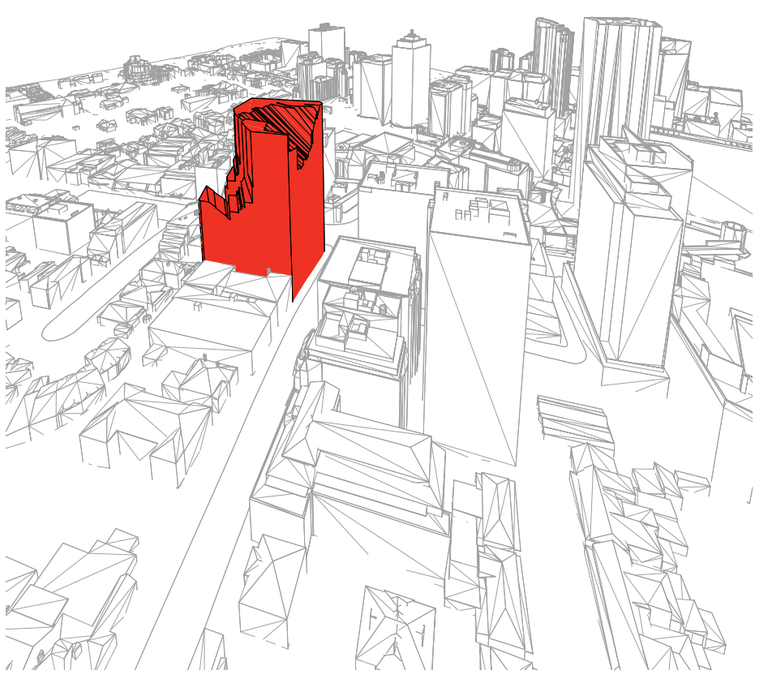


SITE



SHADOW PLANES

The sun angle calculated from 9 am to 3 pm on the winter solstice at critical points on Don Bank and Berry Street residence



SOLAR MASS

The resulting shadow planes were then used to create an envelope which would not allow extra shadowing to these sites

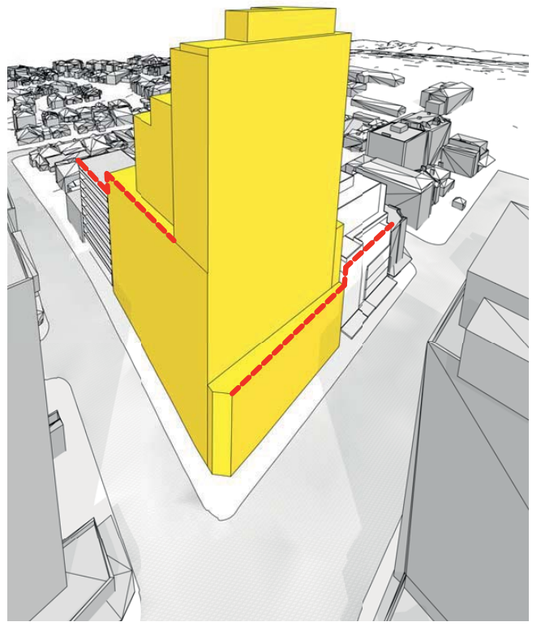
ESTABLISHING SOLAR ACCESS CONSTRAINTS

Significantly areas of plant at the top of the building had not been included in the analysis of the current approved scheme and as a result there were some not insignificant errors in the diagrams for overshadowing of apartments in Berry Street and the grounds of Don Bank House.

Through this testing of the two envelopes, the approved and the reverse engineered, AJ+C was able to identify a building mass that was still consistent with that of the approved outcome in terms of reducing environmental impact.

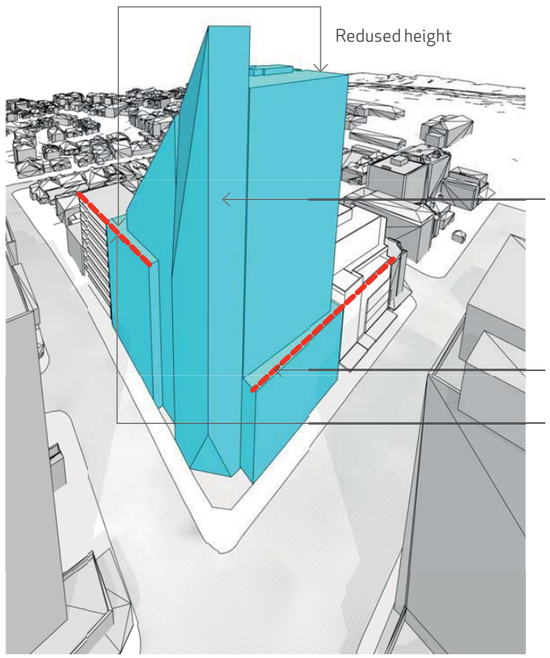
Our shadow plane and solar access analysis revealed that some parts of the site were less sensitive than others. For eample we identified that a building mass set back from Berry Street and to the north has less visual impact as well as reduced overshadowing.

The 'solar plane' provides a clear and definitive guide as to the extent that any building envelope can be developed to ensure compliance with the LEC planning principle.



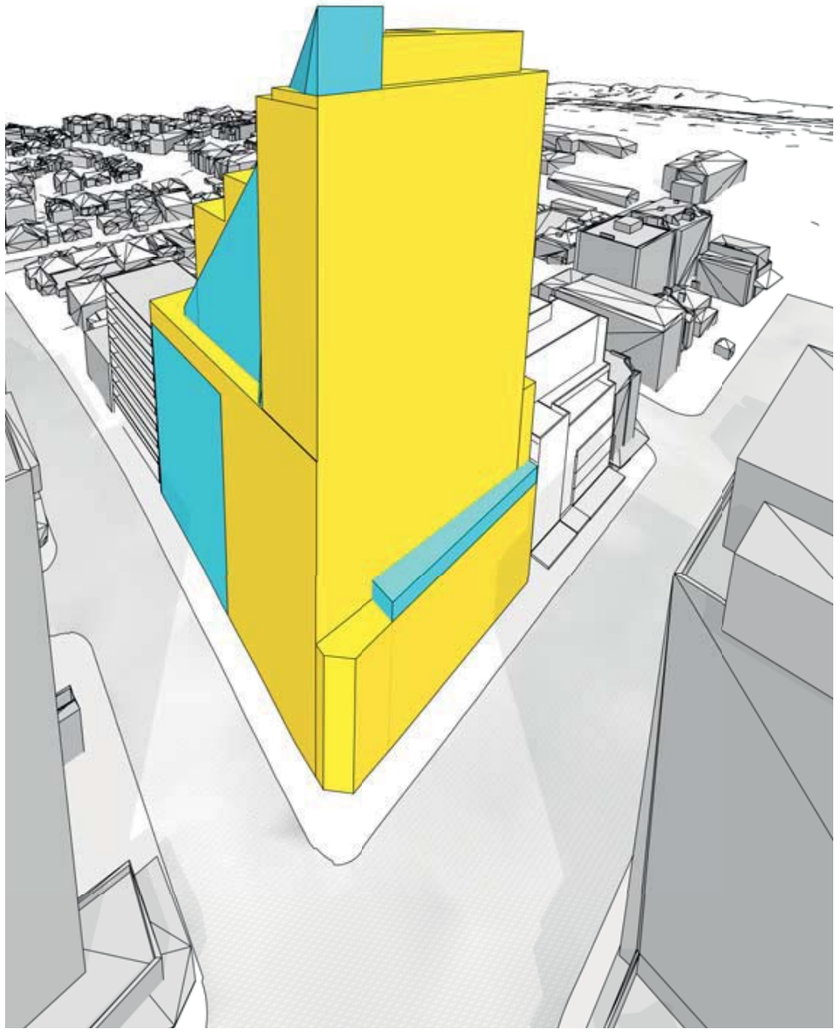
APPROVED

Street wall doesn't align with adjacent buildings



PROPOSED

Stronger Street wall alignment with adjacent buildings



OVERLAY

COMPARATIVE ANALYSIS OF BUILDING MASS

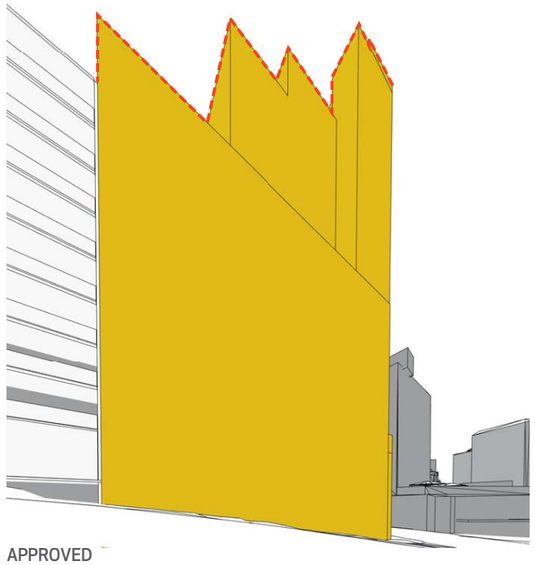
A review of the North Sydney Council's and Design Excellence Committee's concerns with the approved scheme led AJ+C to address these issues.

1. ***The Panel raised concern about the relationship of the proposal on Berry Street to the adjoining development which is currently under construction.***

AJ+C has addressed this concern by reducing the height of the podium of the current approval by 1 level, thereby aligning the podium/street wall with the adjacent buildings on Berry Street.

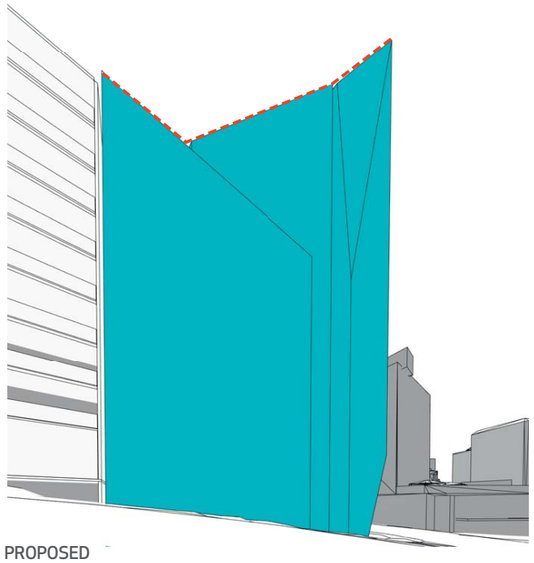
2. ***The Panel had a similar concern with the relationship to the development at 156 Pacific Highway. The proposal is significantly higher and lacks any sensitive transition between developments.***
3. ***The Panel considered that the tower would be best as a simple element over the part of the site known as 144-154 Pacific Highway with the lower elements more in keeping with heights of the adjoining sites.***

Similar to point 1, this concern has been addressed by reinforcing the corner of Berry Street and the Pacific Highway, matching the street wall/podium to the existing buildings on Berry Street and setting back the upper floors in a raking plane away from Berry Street significantly reducing building bulk.



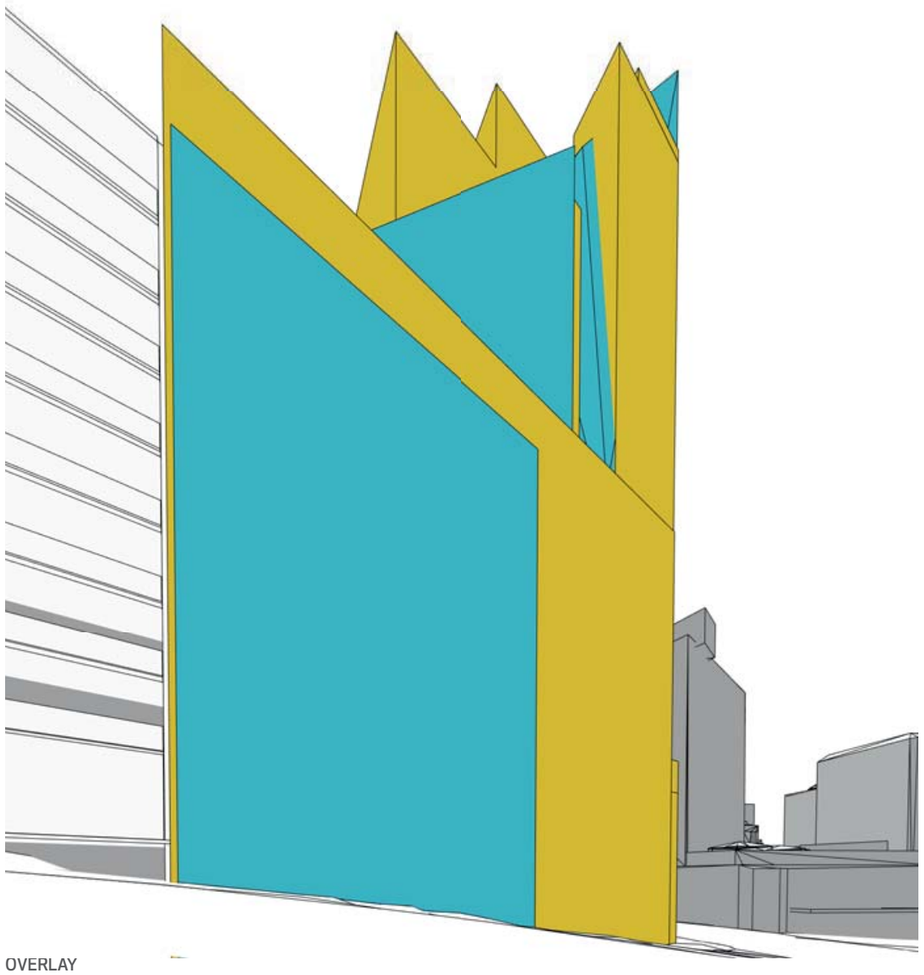
APPROVED

Building presents a jagged and non cohesive edge to the street



PROPOSED

Building presents a cohesive edge to the street, percieved building mass in reduced



OVERLAY

BUILDING DESIGN

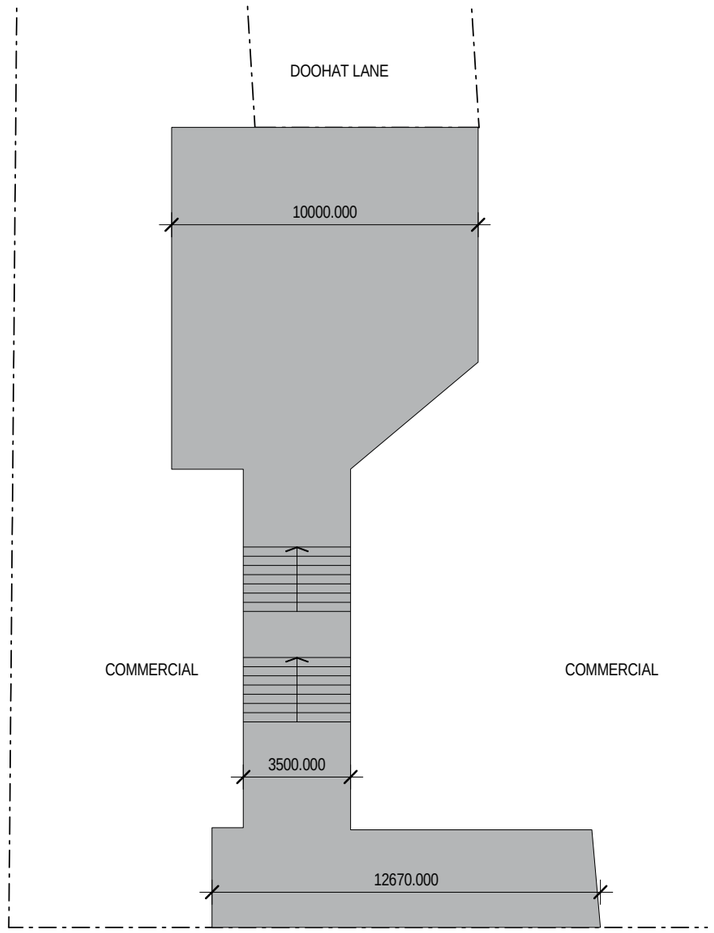
4. ***The Panel did not support the shaping of the upper floors of the tower. This 'articulation' based on the potential overshadowing of the Don Banks Museum adds to the apparent bulk of the building.***

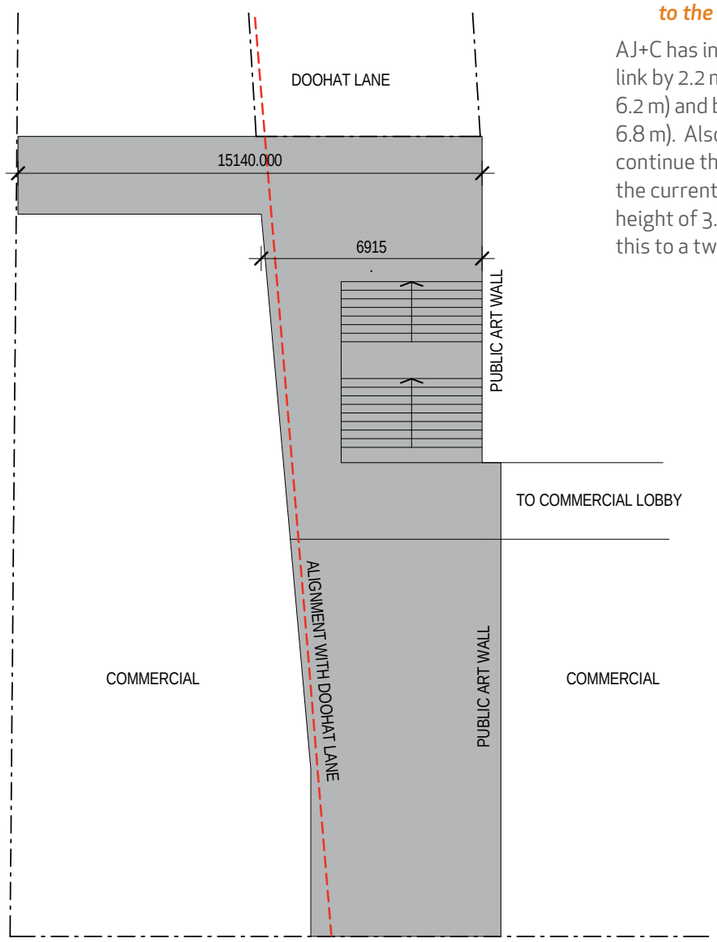
By reverse engineering the solar access plane to create a building envelope, AJ+C has eliminated these 'articulated' elements reducing the building bulk at the upper levels and minimising and reducing overshadowing impact.

5. ***The Panel felt that to make the tower simpler and the scale more appropriate, the upper levels of the building should be removed.***

AJ+C has simplified the building form and reduced the overall height by more than 5.5 m or approx. two floor levels.

The proposed tower is more elegant and simplified in its form.





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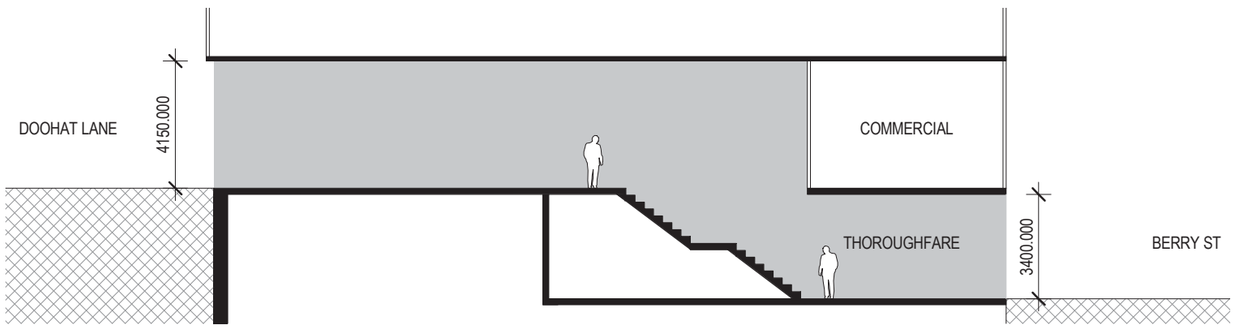

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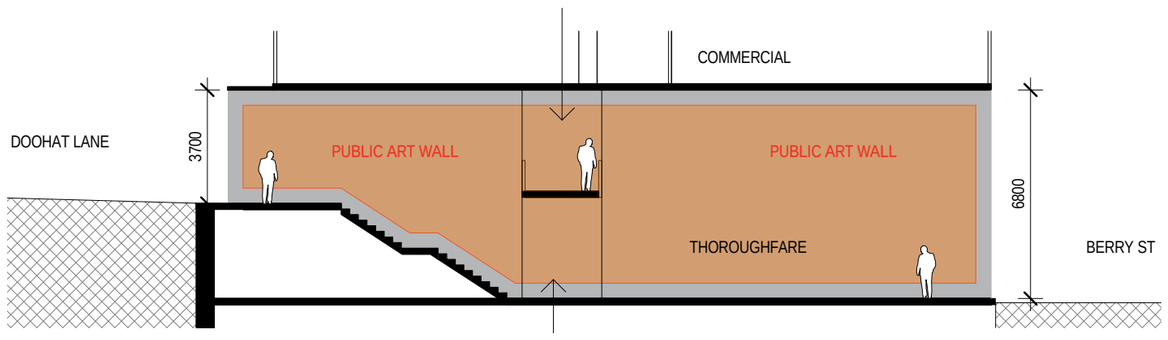
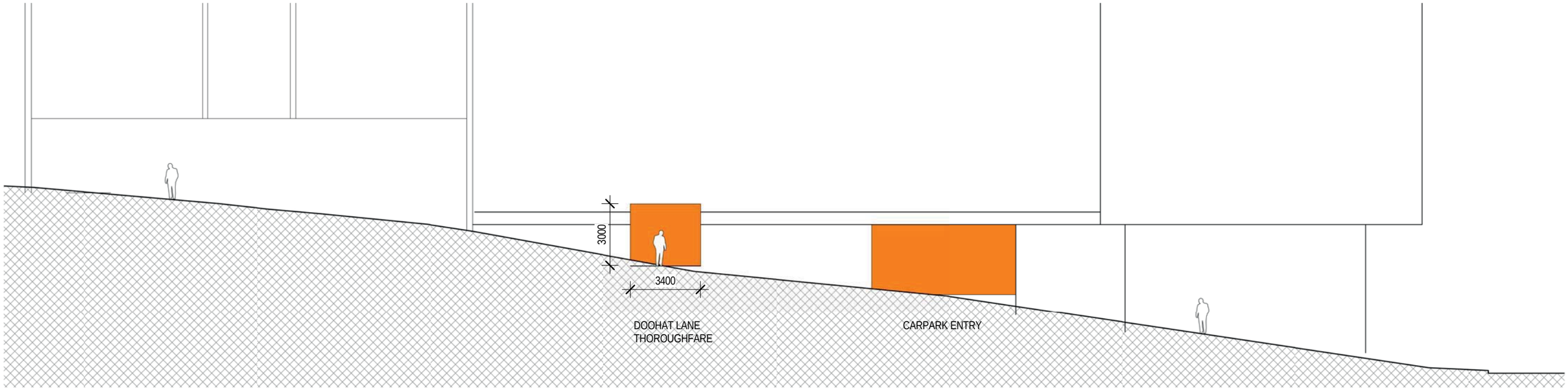


6. ***The Panel supported the through site link from Doohat Lane to Berry Street in that it provided a public benefit, but does not support the proposal as the access is narrow, uninviting and provides poor sight lines due to the hilly nature of the topography.***

AJ+C has increased the width of the through site link by 2.2 m at the Berry Street entrance (4.0 m to 6.2 m) and by 2.8 m on the Doohat Lane side (4.0 to 6.8 m). Also the alignment has been modified to continue the alignment of Doohat Lane. Further the current approved scheme has an internal height of 3.4 m or one storey. AJ+C has increased this to a two storey volume of 6.8 m.



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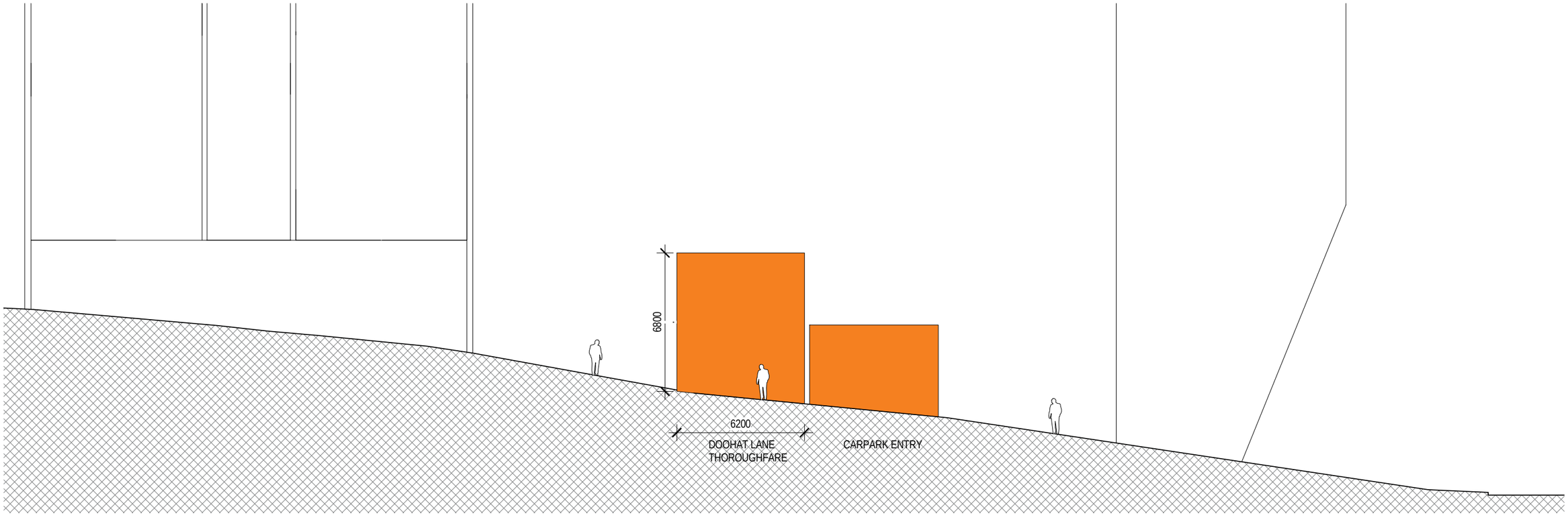

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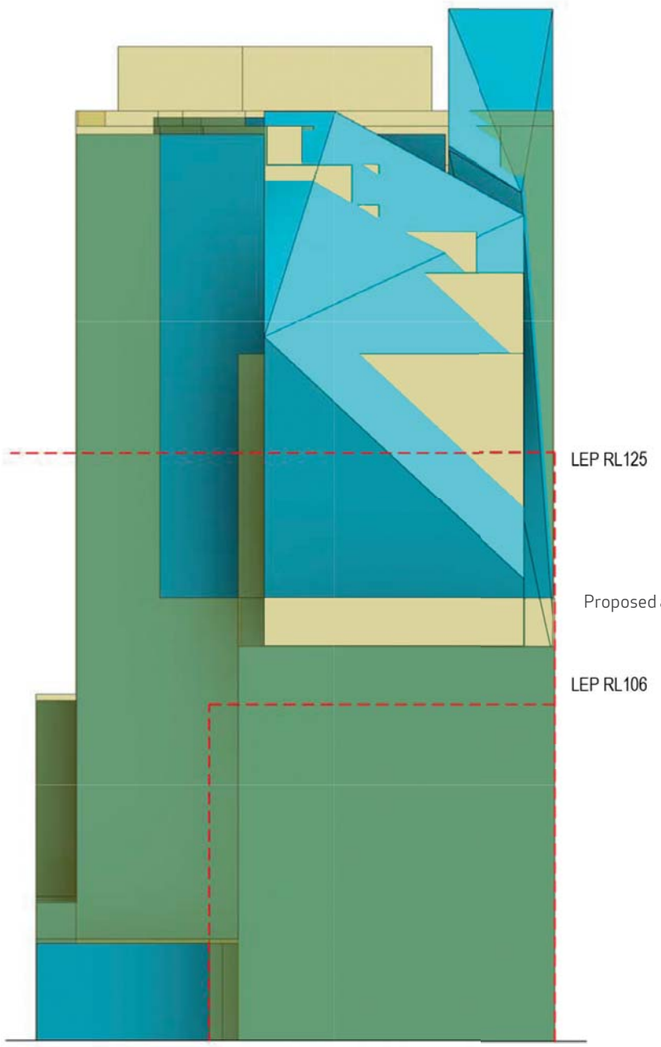
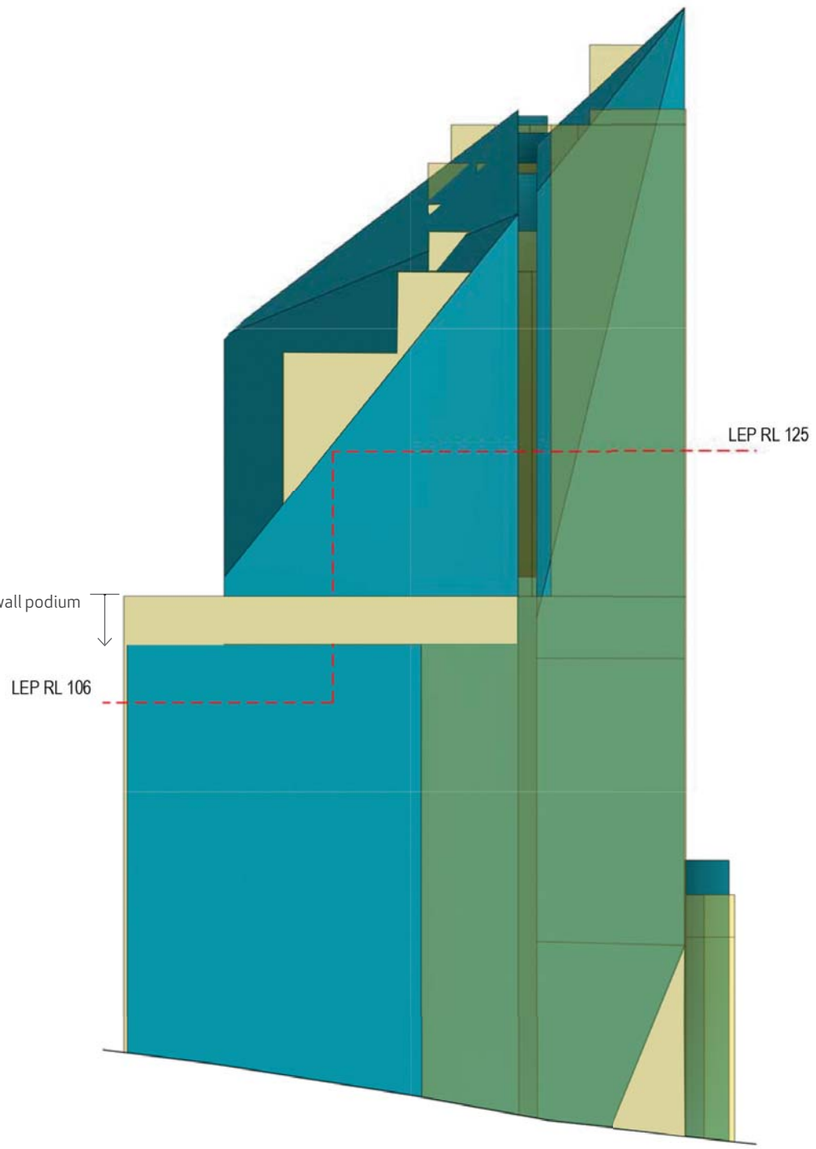


WEST ELEVATION



SOUTH ELEVATION

RESIDENTIAL AMENITY

7. ***The Panel noted the report of Steve King in relation to cross ventilation and solar access. Overall the amenity levels are poor, and taking into account the location and amenity of the area, the standard is less than desirable.***

AJ+C has increased the amenity of the project by

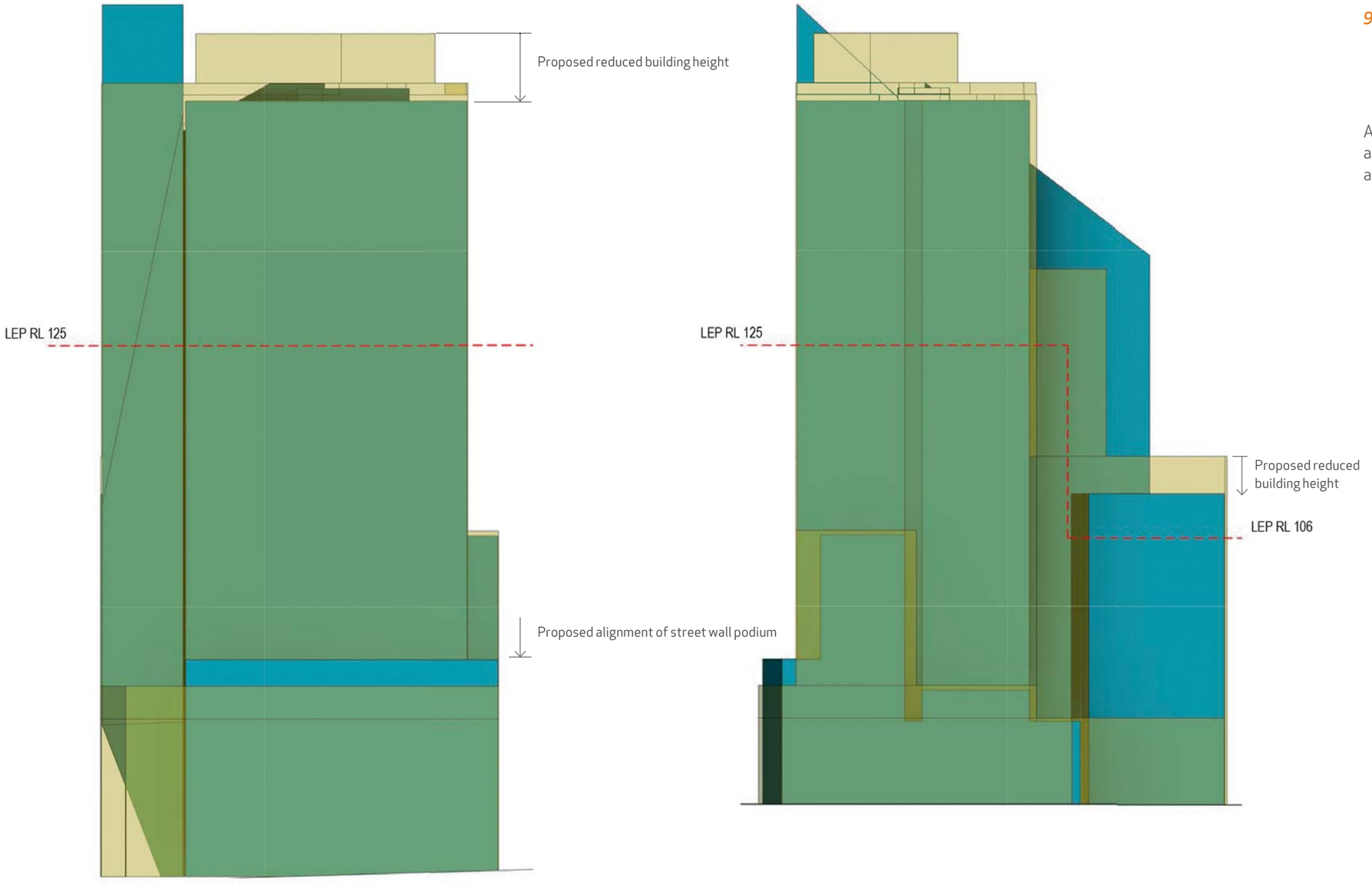
a) *reducing the number of south facing apartments*

b) *increasing the percentage of cross ventilated apartments*

c) *increasing the percentage of solar access.*

8. ***The Panel commended the applicant on the provision of communal roof areas but considered that some small enclosed space(s) should be provided so that they are useable in all conditions.***

AJ+C has added an enclosed community space at Level 21



EAST ELEVATION

NORTH ELEVATION

9. *The Panel noted the common areas on levels 3 to 11 but was concerned that they were internal and uninviting. By moving the core slightly to the south a more welcoming space with outlook and light could be readily provided on the north side of the core.*

AJ+C has eliminated these common areas but increased the amenity of the circulation spaces by increasing the amount of access to light and air.

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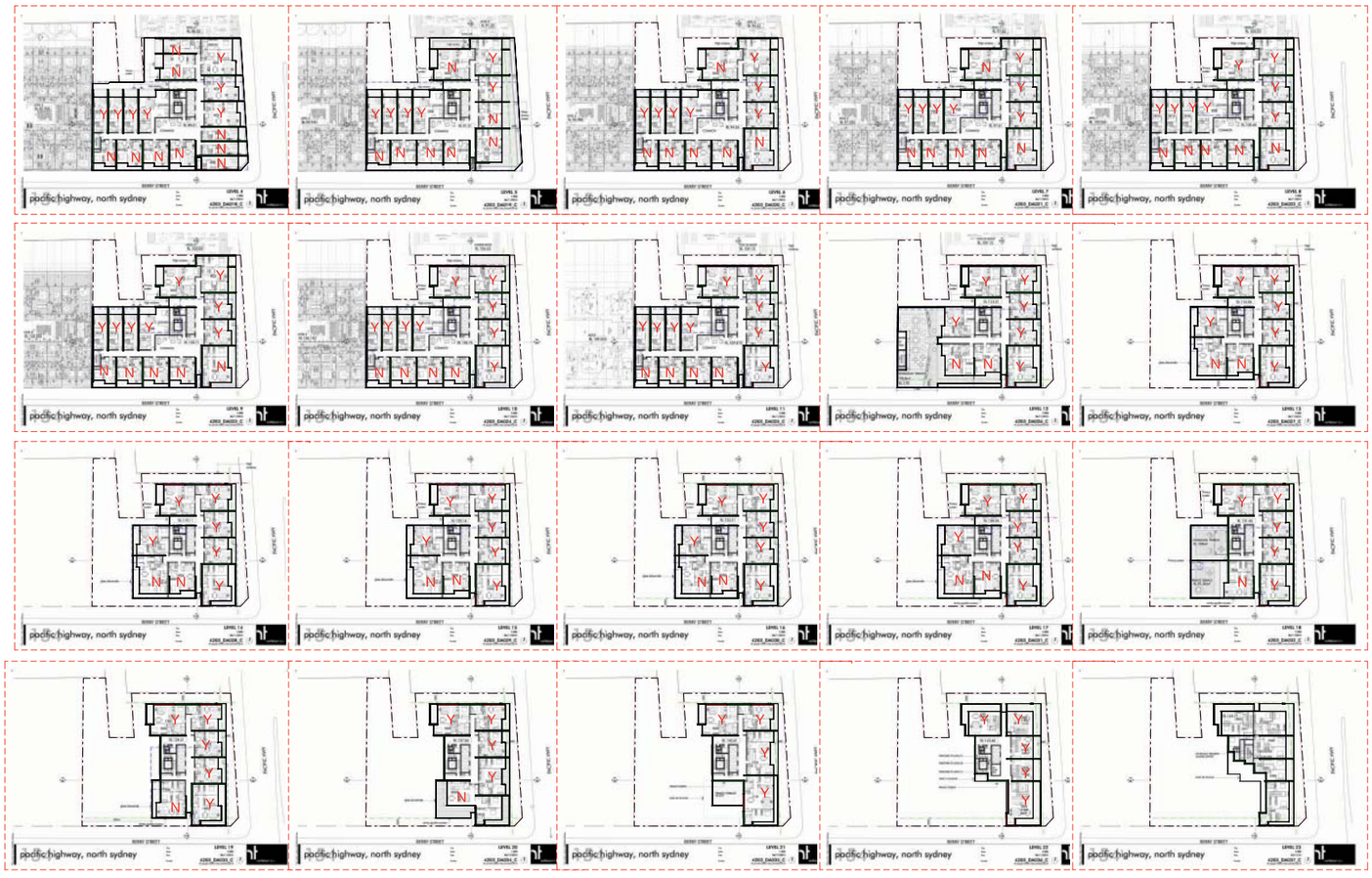

ACHIEVING 2 HRS SOLAR ACCESS

YES	120	66%
NO	61	34%
TOTAL	181	100%

APPROVED SOLAR ACCESS

144-154 PACIFIC HIGHWAY NORTH SYDNEY
FUJI REAL ESTATE DEVELOPMENT (AUSTRALIA) PTY LTD

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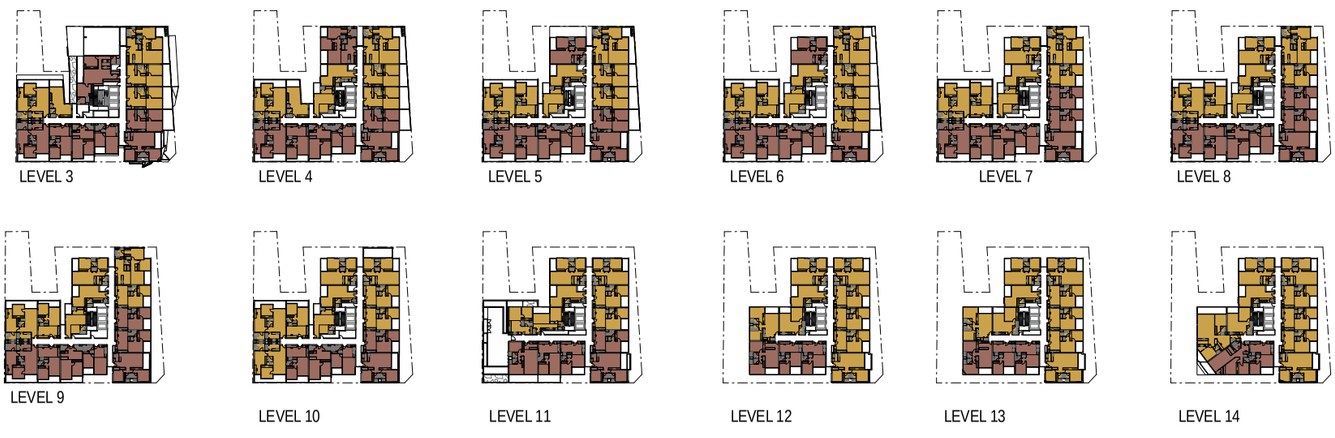

ACHIEVING 2 HRS SOLAR ACCESS

YES	152	66.1%
NO	78	33.9%
TOTAL	230	100%

PROPOSED SOLAR ACCESS

144-154 PACIFIC HIGHWAY NORTH SYDNEY
FUJI REAL ESTATE DEVELOPMENT (AUSTRALIA) PTY LTD

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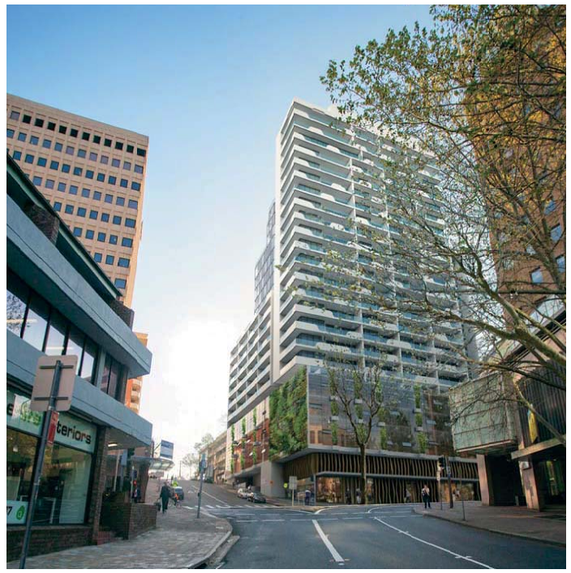
SOLAR ACCESS

AJ+C have conducted an examination of the approved scheme and found that the number of units achieving 2 hrs of solar access is in the order of 66%, not 73% as stated.



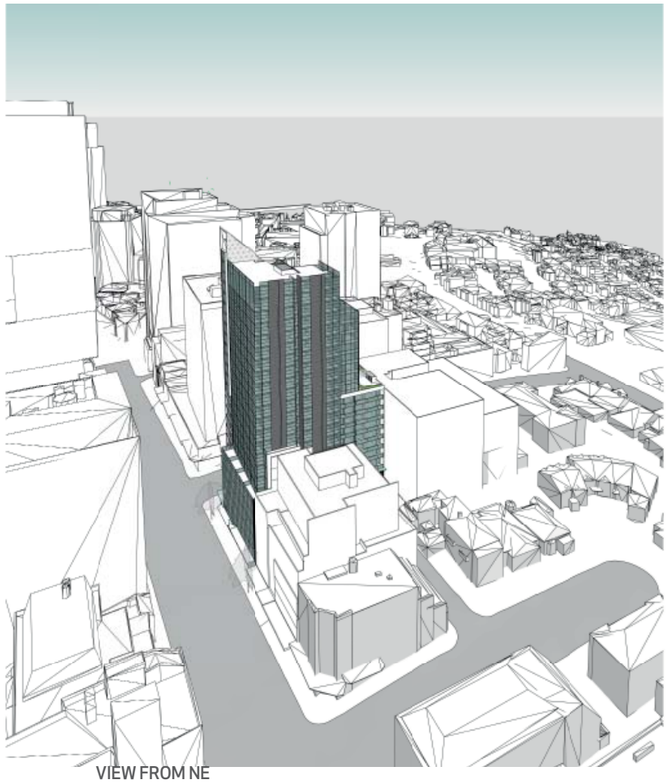
APPROVED

PROPOSED

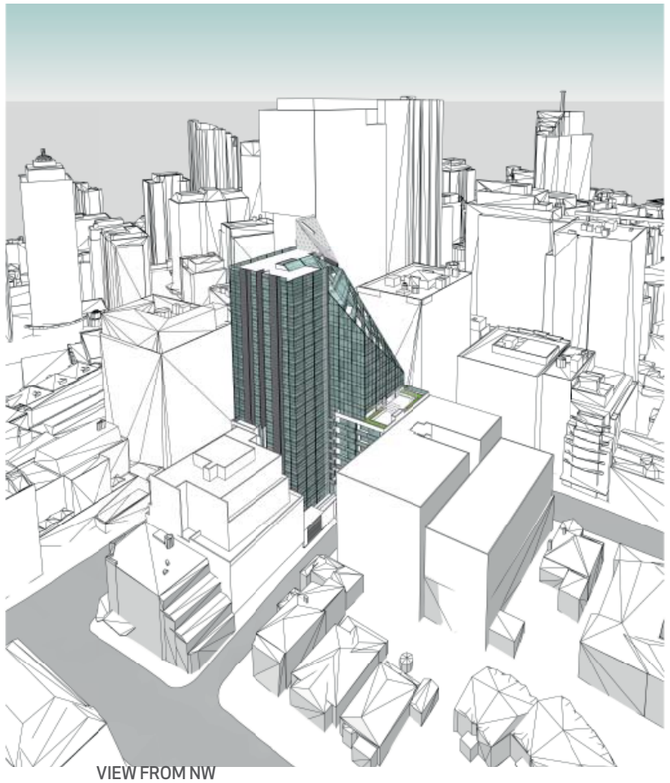
CONCLUSION

In conclusion, by detailed contextual analysis of solar access and the surrounding built form, AJ+C with this submission has:

- achieved a well-considered design response that takes into account LEC principles and Council/DEP concerns with the current approved design;
- reduced the overall building height;
- reduced the visual bulk/dominance of the Berry Street elevation;
- reduced the Berry Street Podium by 1 level to align with the existing buildings;
- widened the through site link by more than 2 m and increased its height by more than 3 m;
- aligned the through site link with Doohat Lane;
- activated the link with access to the lift core giving a second 'drop-off' address to the building;
- shifted floor space, in part outside the current envelope to achieve a more appropriate building form that reduces overshadowing and improves amenity.



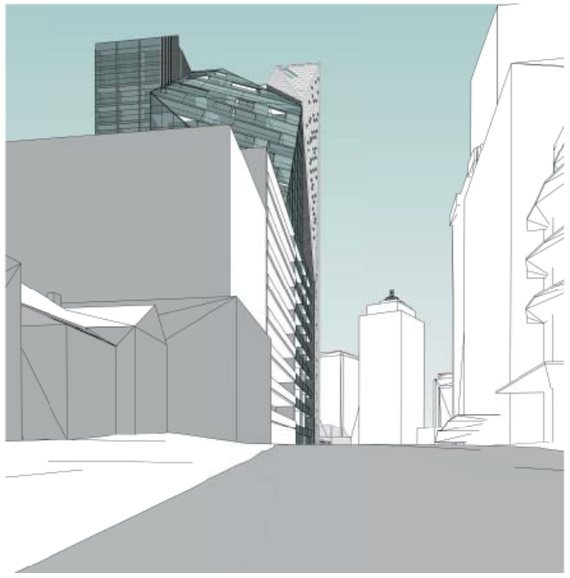
VIEW FROM NE

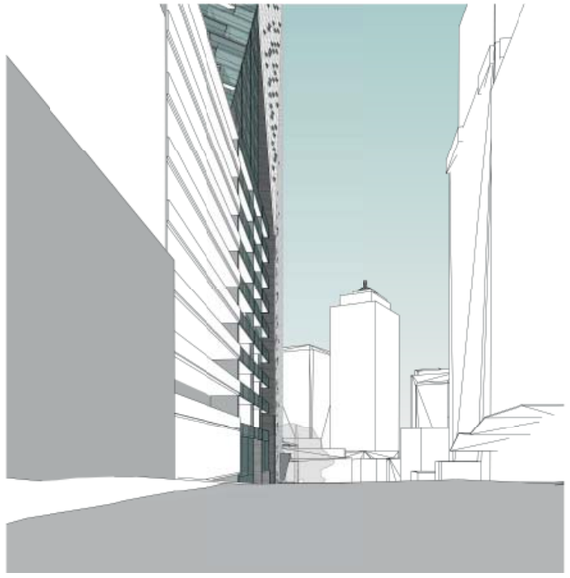


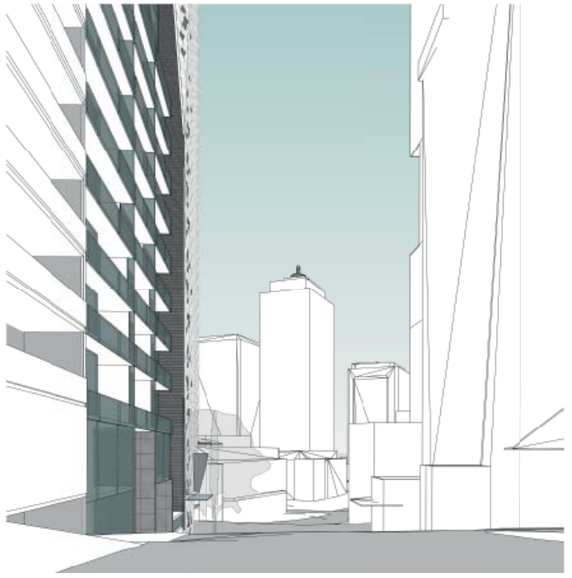
VIEW FROM NW

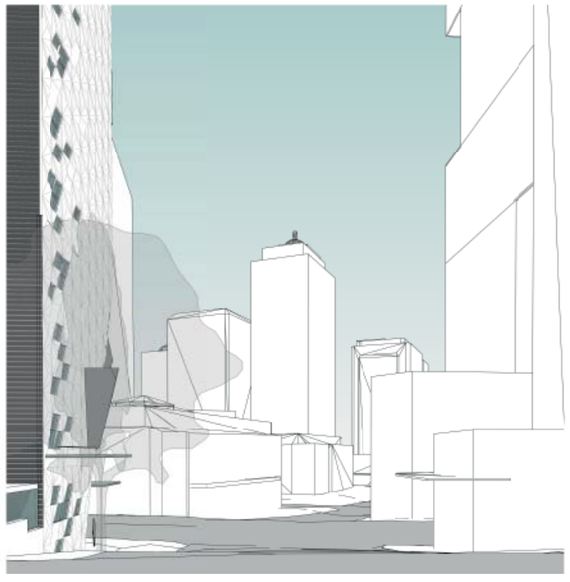
VIEW FROM SE

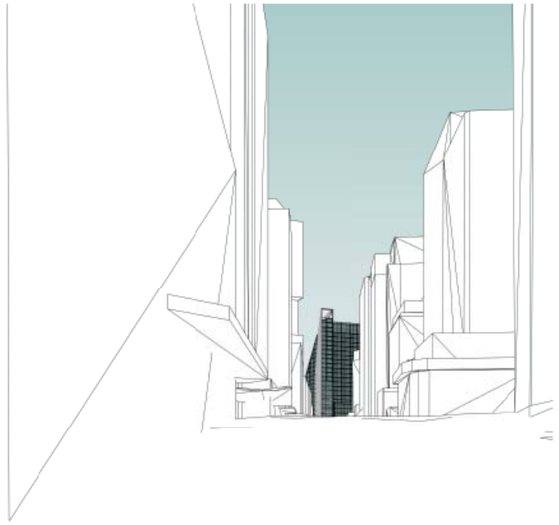
VIEW FROM SW

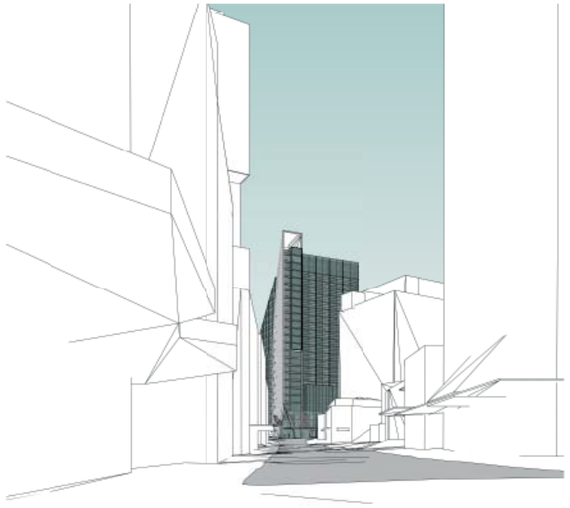












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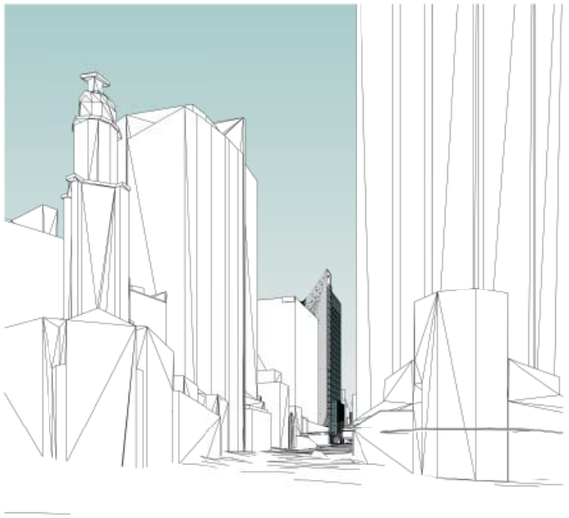
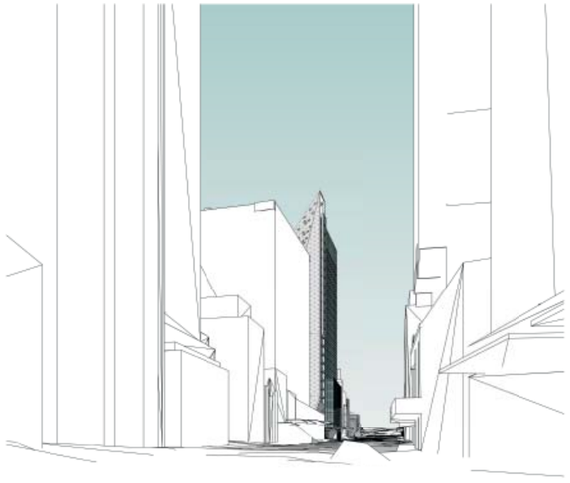
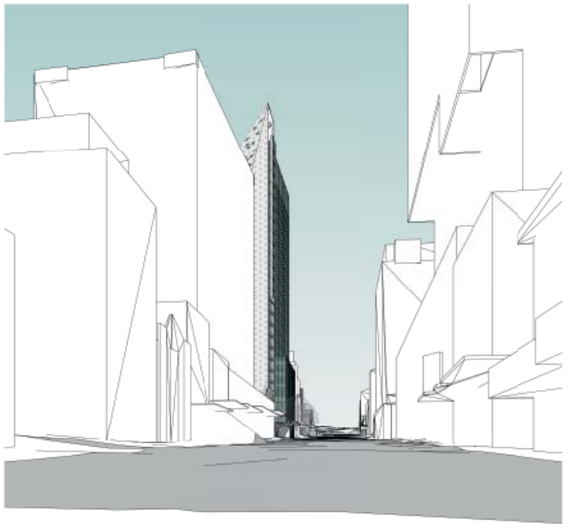
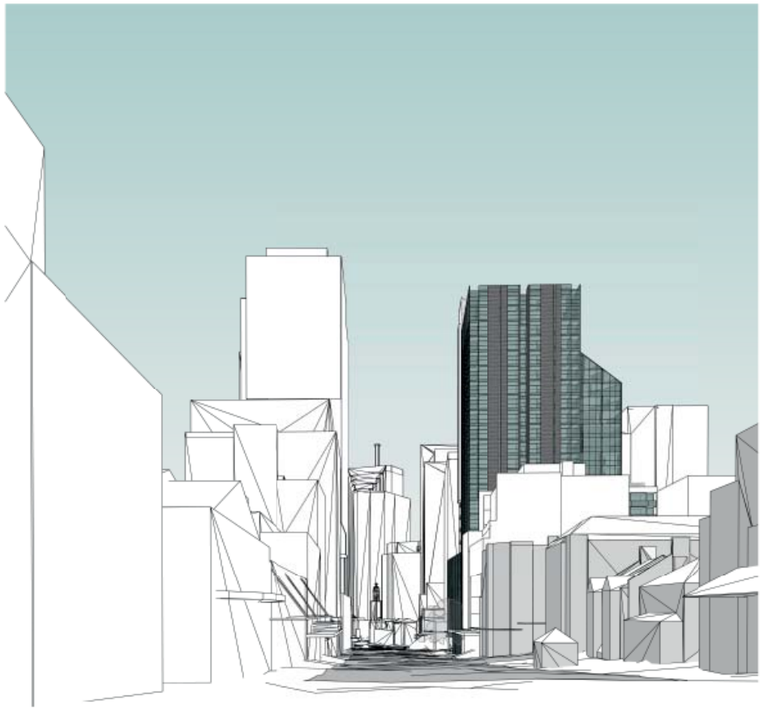
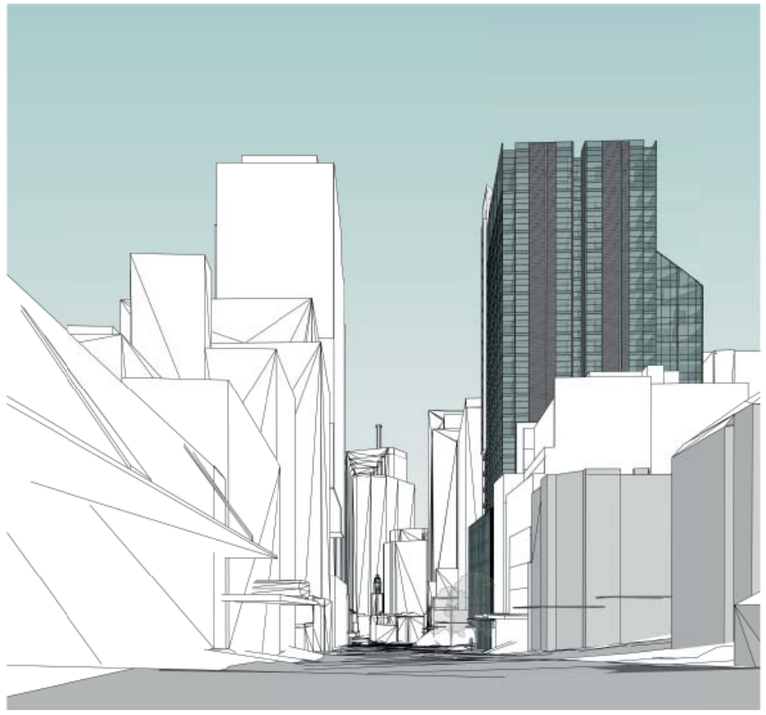
SEQUENCE ALONG BERRY STREET WESTBOUND

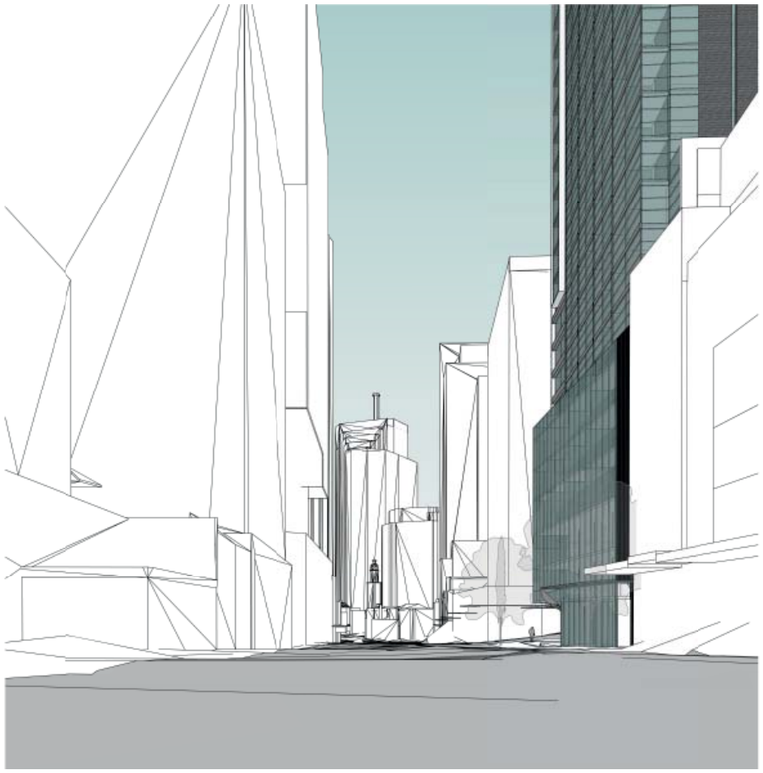






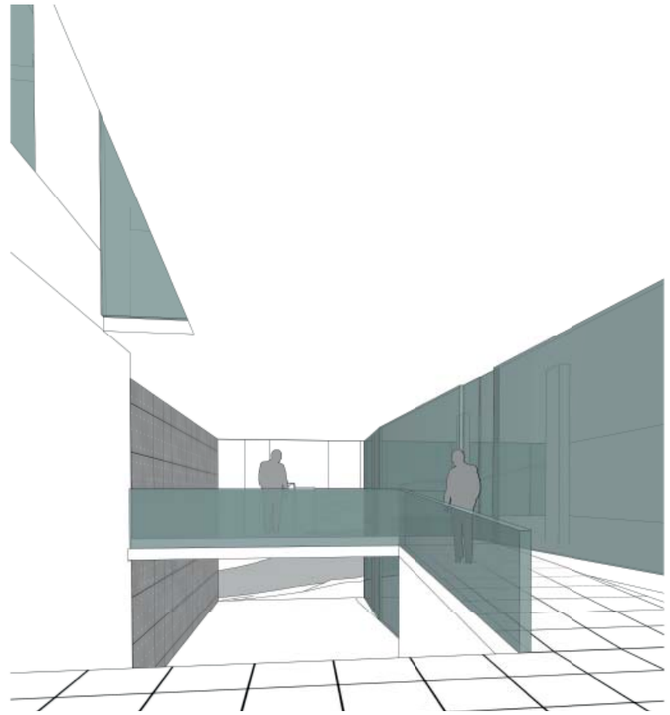


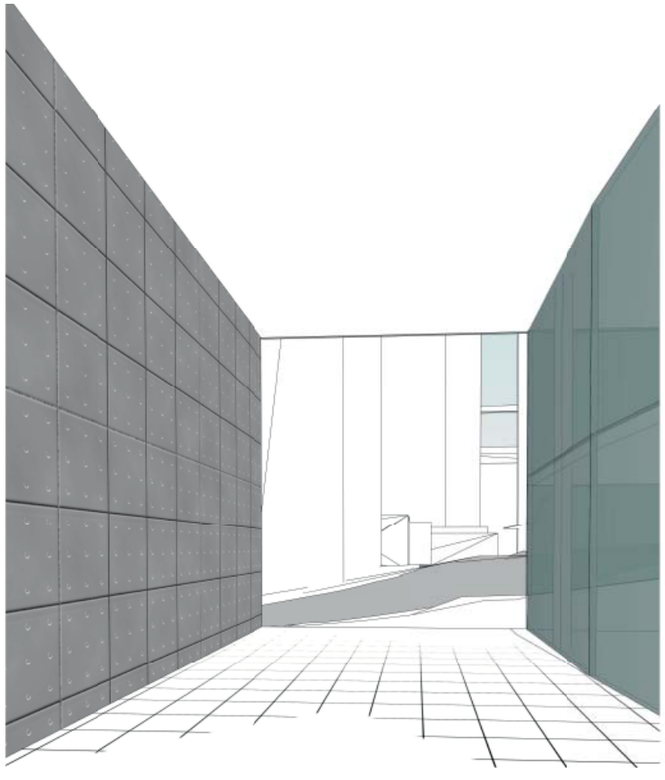




144-154 PACIFIC HWY NORTH SYDNEY

SEQUENCE ALONG PACIFIC HIGHWAY SOUTHBOUND





144-154 PACIFIC HWY NORTH SYDNEY

SEQUENCE ALONG DOOHAT LANE

APPROVED