

NORTH FACADE TO PROPOSED SCHEME



EAST FACADE TO PROPOSED SCHEME



WEST FACADE TO PROPOSED SCHEME



SOUTH FACADE TO PROPOSED SCHEME

We have proposed a series of facade systems to suit differing solar and privacy requirements. Additionally, each facade system can be interchanged to suit market and technical demands. Where privacy is not a requirement, loggia spaces can be fully glazed as per Facade Type 1. Where employed on the north elevation this system will incorporate horizontal clip-on sunshades. Where a level of privacy is required, vertical fins or sliding screens can be provided as per Facade Types 3 and 4.

The various systems seek to provide a range of options in regard to the level of screening. Facade Type 4 is fully glazed with sliding screens to the front, while Facade Type 6 is essentially the same system with a 1/3 module of solid cladding added. Facade Type 6 is thus typically employed to bedroom areas. The percentages of solid to glass can be adjusted in response to local solar, privacy and cost requirements.

Where Loggia spaces are not required, open balconies will employ a similar aesthetic, eg: Facade Type 5. This system can be used with or without the vertical louvres. Where an open balcony is provided it is anticipated that a sliding door system may be adopted in lieu of the bi-fold system.

In summary, the facade systems as proposed seek to provide a highly flexible system which will easily and robustly and respond to programme and cost requirements.



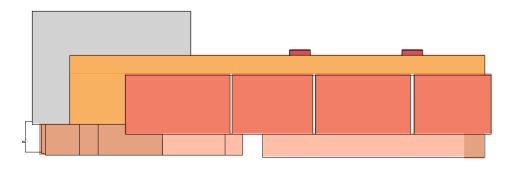
DETAILED VIEW OF FACADE SYSTEM

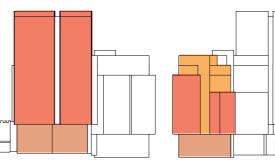
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# PROPOSED SCHEME - FACADE SYSTEMS PER FACADE

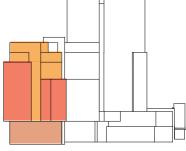


O'CONNOR ST EAST





East Elevation



West Elevation

North Elevation

## Facade Type 1

Anodised aluminium Curtain Wall System with integrated operable euro style multifunction windows hardware and clip-on custom profiled extrusions

## Facade Type 2

Anodised aluminium Window Wall System with integrated operable euro style multifunction windows hardware and door systems.

#### Facade Type 3

Anodised aluminium Window Wall System with integrated operable windows. Fenestration to facade system being anodised aluminium operable bi-fold perforated sunshade screens.

### Facade Type 4

Anodised aluminium Window Wall and door systems (allow for full height pivot functionality). Fenestration to facade system being profiled timber battens using "clip-on" fixing

#### Facade Type 5

South Elevation

Terracotta cladding (allow for minimum 1200 wide module)

#### Facade Type 6

Rendered Masonry with integrated anodised aluminium window systems

## Facade Type 7

Brick Type 1 colour (earthy rust). Bowral pressed or similar. Final selection as per materials board.

#### WIND IMPACTS

#### CPP: CERMAK PETERKA PETERSEN

Previous wind-tunnel testing around this site indicates that windy conditions exist along Kensigton Street to the east of the site for winds from the north-east and west quadrants, while the remainder of the site is suitable for pedestrian sitting or standing activities.

For the proposed building, both a compliant and non-compliant architectural scheme have been developed and assessed herein. The development consists of a medium-rise building that is slightly higher at the eastern end, which is located between low-rise residential buildings to the south, and significantly taller buildings to the north, which will dominate to a large extent the local wind environment. From a wind perspective the primary differences from the compliant to noncompliant designs include the connection of the two buildings to form a single building with a through-site link at ground level, and the relocation of the taller section of the building to the south.

Serviceability wind conditions across this site are considered to be governed by the prevailing Sydney winds from the north-east, south, and west quadrants. The One Central Park site is in a relatively exposed location to the south of the city so is exposed to all prevailing wind directions. The local wind climate around the proposed site is largely dictated by the relative position of this smaller building to the larger buildings around the site that will channel the flow.

Winds from the north-east tend to be cooling summer breezes bringing welcome relief on hot summer days. The exposed larger buildings to the north, channel the winds from the north-east to the south along Kensington Street. The angled face of Block 5C redirects the wind direction creating windy conditions along the east façade. The size of the gap between Block 5C and Block 11 and the orientation and shape of the east end of the proposed building will dictate the wind speed along Kensington Street and to the west. The Proposed Scheme is expected to provide a more uniform distribution of wind speeds around the site thereby reducing the chance of local windy locations as are expected to occur along Kensington Street. The windiest locations are expected to be in the north-west corner of the

The proposed building sits in an exposed location to winds from the south, however the proximity of Block 5C to the immediate north dominates the wind climate at ground level for winds from this direction. Both building designs will result in a similar wind environment around the proposed development. The through-site link is expected to

be marginally windier than the laneway, due to the alignment with the open areas to the north.

Winds from the west quadrant are expected to generate the windiest conditions around this building, particularly around the north-east corner and Kensington Street. These strong accelerated flows are generated by the massing and orientation of the larger buildings to the north. The Proposed Scheme with the larger open area and significant planting close to the façade to the north-east of the site will ameliorate the winds in this location. Colonnades on this corner would further accelerate the flow.

Wind conditions around both schemes are expected to be similar, as the flow is dominated by the larger buildings to the north. However, the wind conditions around the Proposed Scheme are expected to be slightly better than the Compliant Envelope Scheme in the north-east section of the site. The open parkland areas in the Proposed Scheme are well located to create relatively calm conditions.

The main entries to the building are well located remote from the corners of the building.

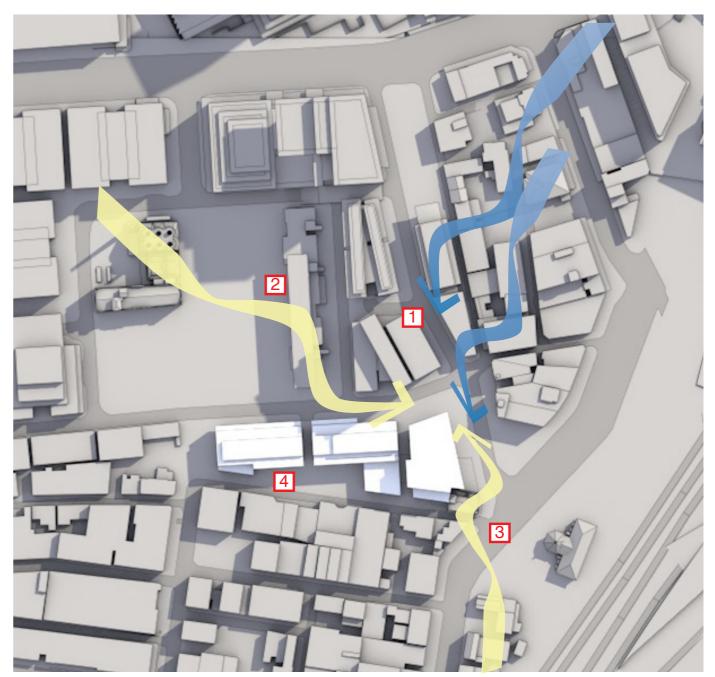
From a structural wind loading perspective, the external geometry and core location present no concerns from a wind loading perspective in either scheme

IN SUMMARY, FROM A WIND PERSPECTIVE THE PROPOSED SCHEME HAS A NUMBER OF BENEFICIAL FEATURES THAT WILL HELP PROVIDE A SUITABLE PEDESTRIAN-LEVEL WIND ENVIRONMENT AROUND THE BUILDING.

Graeme Wood

Director

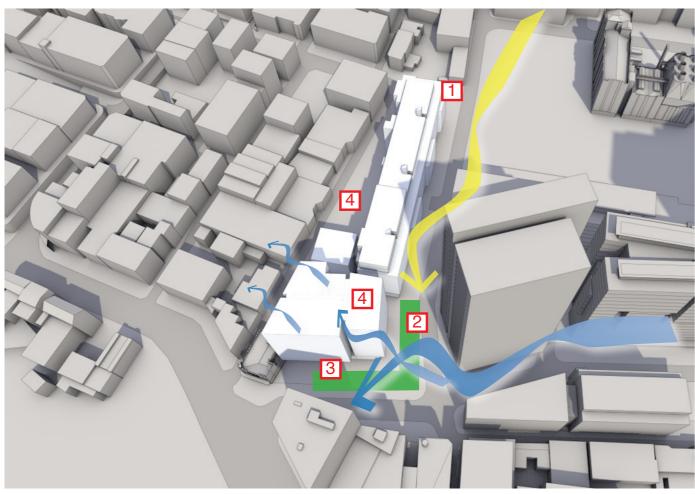
Cermak Peterka Petersen Pty. Ltd.



SITE ANALYSIS OF MODIFIED CONCEPT PLAN ENVELOPE

- 1 The exposed larger buildings to the north, channel the winds from the north-east to the south along Kensington Street. The angled face of Block 5C redirects the wind direction creating windy conditions along the east façade
- 2 Winds from the west quadrant are expected to generate the windiest conditions around this building, particularly around the north-east corner and Kensington Street. These strong accelerated flows are generated by the massing and orientation of the larger buildings to the north.
- 3 The proposed building sits in an exposed location to winds from the south, however the proximity of Block 5C to the immediate north dominates the wind climate at ground level for winds from this direction.
- 4 Wellington St park protected from winds

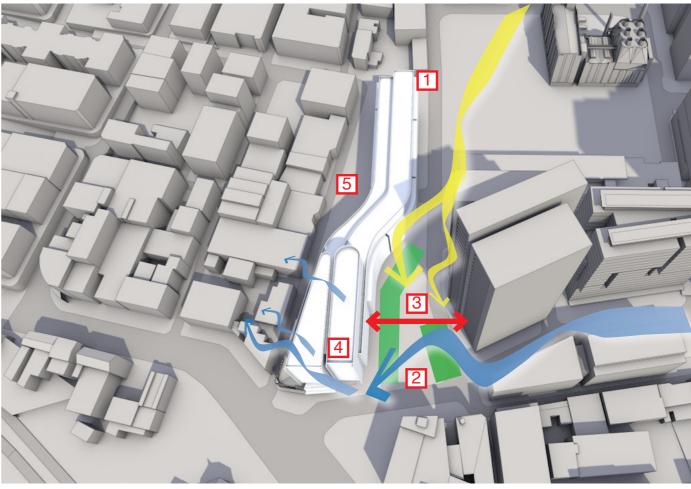
75







- 1 Cafe to west of plan, adjacent to pocket park provides good quality environment.
- 2 Landscaped edge to provide wind break from NE and NW winds
- 3 Awning above commercial / retail edge
- 4 Eastern building incorporates facade slots to capture cooling NE breezes, providing cross ventilation via ventilated corridors
- 5 Child-care and Wellington St park well protected from wind.



PROPOSED SCHEME COMMENTARY



- 1 Cafe to west of plan, adjacent to pocket park provides good quality environment.
- 2 Landscaped edge to provide wind break from NE and NW winds. Increased park offers greater opportunities fro buffering and protection.
- 3 Increased width between Block 5C and Block 11 reduces funnelling effect from NW winds,
- 4 Eastern building incorporates facade slots to capture cooling NE breezes, providing cross ventilation via ventilated corridors
- 5 Child-care and Wellington St park well protected from wind.