

Attachment D

Architectural Design Competition Report

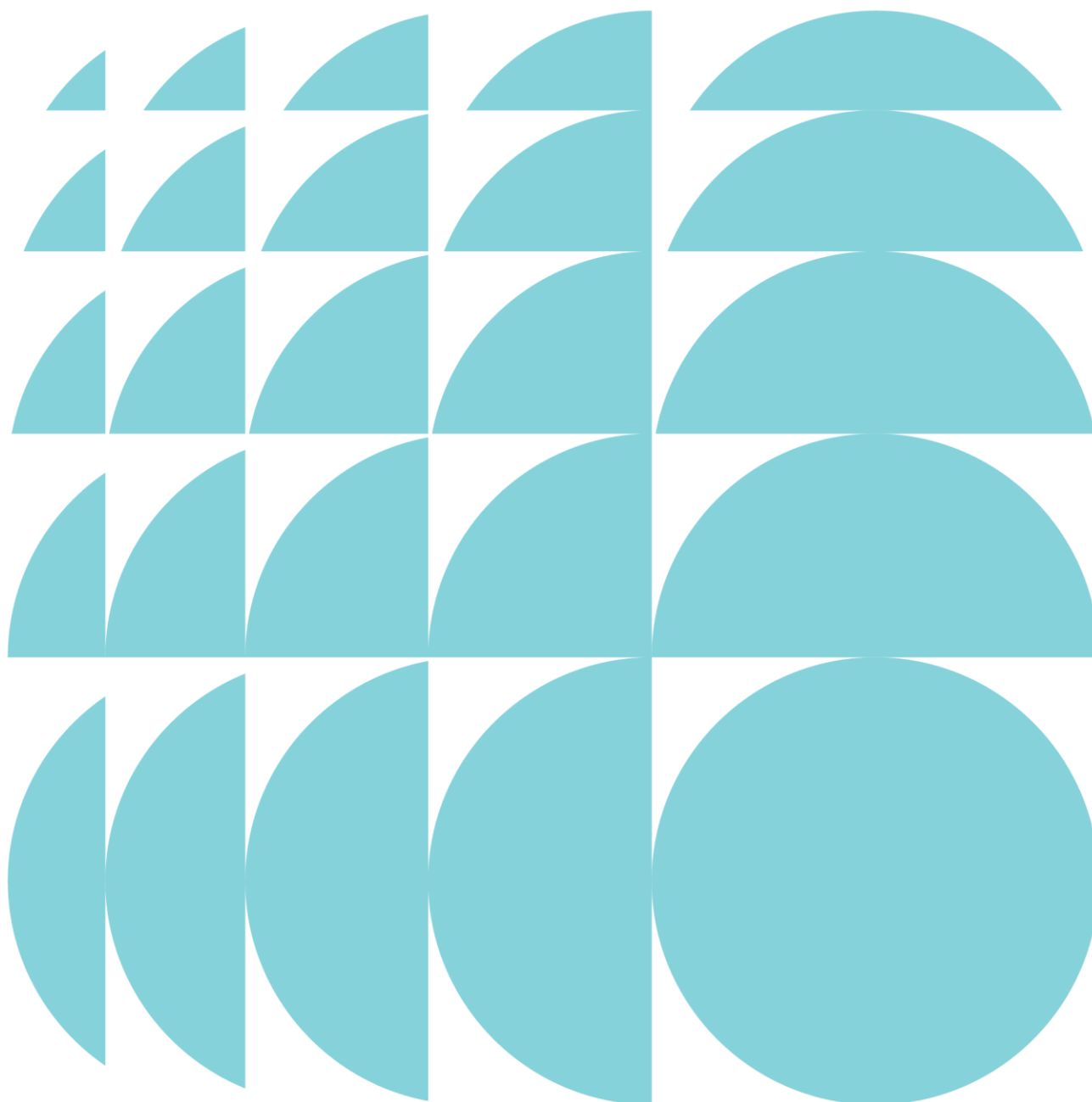
ETHOS URBAN

Invited Architectural Design Competition

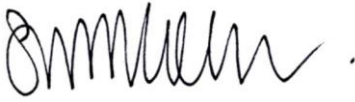
505-523 George Street, Sydney
Architectural Design Competition Report

Submitted to City of Sydney
On behalf of Coombes Property Group and
Mirvac Projects Pty Ltd

17 August 2018 | 218124



This Architectural Design Competition Report has been reviewed and endorsed by the Competition Jury, which comprises:



.....
Shelley Penn (Jury Chair)
Date: 2 August 2018



.....
Michael Coombes
Date: 3 August 2018



.....
Andrew Cortese
Date: 7 August 2018



.....
Richard Johnson
Date: 1 August 2018



.....
Stuart Penklis
Date: 3 August 2018



.....
Diana Sarcasmo
Date: 3 August 2018

This Architectural Design Competition Report has been reviewed and endorsed by Mirvac Projects Pty Ltd as development manager on behalf of the Proponent and landowner, Coombes Property Group.

The Proponent's representative comprises:

Dominic Hunt
Senior Development Manager
Mircac

Signature:

Date:
17 August 2018



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7 August 2018

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Ethos Urban

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Ethos Urban

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1.0 Introduction

This Architectural Design Competition Report has been prepared by Ethos Urban on behalf of Coombes Property Group (the Proponent) and Mirvac Projects Pty Limited (the Development Manager) for the Invited Architectural Design Competition (the Competition) undertaken for the 505-523 George Street, Sydney site (the Site). The Report summarises:

- The competition process;
- The architectural submissions; and
- The Jury's deliberations, decision and recommendations.

The Report should be read with reference to the Architectural Design Competition Brief (the Brief) which is provided at **Appendix A**. The Competition was conducted in accordance with the Brief, which was endorsed by the City of Sydney (the City) and issued to all Competitors at the commencement of the competition.

1.1 Competition Process

The Competition was conducted in accordance with the protocols for Invited Architectural Design Competitions as stipulated in the City's Competitive Design Policy 2013 (as amended) (the Competitive Design Policy). Six (6) architectural firms, including partnerships, accepted the Proponent's invitation to participate in the Competition.

1.1.1 Competitors

The architectural firms invited to participate were selected due to their demonstrated ability to design high-quality and sustainable residential/mixed-use towers and public/retail spaces. The six (6) selected architectural practices were (in alphabetical order):

- Bates Smart;
- Foster + Partners;
- Francis-Jones Morehen Thorp (FJMT);
- Ingenhoven in partnership with Architectus (Ingenhoven + Architectus);
- Skidmore, Owings and Merrill in partnership with Crone (SOM + Crone); and
- WilkinsonEyre.

1.1.2 Competition Manager

Ethos Urban were engaged by the Proponent to act as Competition Manager.

1.1.3 Competition Fee

A competition fee of \$100,000 AUD (plus GST) was paid to each Competitor for participating in the Competition. Additional remuneration was provided to international competitors to cover the costs associated with travelling and staying in Sydney to attend the briefing and presentation days.

In addition to the Competition Fee, the Proponent paid for each Competitor's fees in relation to ESD and Vertical Transport advice up to the limits detailed in **Section 1.1.3**. The Proponent retained Ethos Urban and Rider Levett Bucknall to provide advice to Competitors at no additional cost, up to the limits detailed in **Section 1.1.3**. Any additional time or scope outside that nominated in the Brief was to be paid by the Competitor.

All other costs incurred by the Competitor, or their appointed consultants/advisors were borne by the Competitor.

1.1.4 Technical Advisors

The Proponent made available the following advisors to provide technical assistance to all Competitors:

- Quantity Surveyor (Rider Levett Bucknall); and
- Urban Planning (Ethos Urban).

The Quantity Surveyor was made available for up to five (5) hours of technical advice and high-level costing per Competitor throughout the Competition, as well as one (1) face to face meeting with each Competitor up to seven (7) days prior to the lodgement of Final Submissions. The Urban Planning consultant was made available for up to five (5) hours of high-level technical planning advice per Competitor throughout the Competition, up to seven (7) days prior to lodgement of the Final Submissions.

In addition to the above technical advisors, allowances were provided for Competitors to engage their own suitably qualified advisors in the following fields:

- Environmentally Sustainable Development (ESD) (to a maximum value of \$10,000 per Competitor); and
- Vertical Transportation (to a maximum value of \$5,000 per Competitor).

Further to the technical assistance provided to Competitors, the Proponent made the following technical advisors available to the Jury to inform their deliberations and final decision regarding technical compliance with the Brief:

- Buildability (Mirvac Constructions);
- Building Services (Arup);
- ESD (Arup);
- Façade (Arup);
- Hotel Specialist (Dransfield Hotels and Resorts);
- Quantity Surveyor (Rider Levett Bucknall);
- Retail Specialist (Ignite Architects);
- Structural Engineer (Enstruct);
- Urban Planning (Ethos Urban);
- Vertical Transport (Arup); and
- Wind (Arup).

The abovementioned technical advisors were also made available during the Progress Sessions, with the exception of the Hotel and Retail Specialists, to provide advice on each Competitor's progress submission.

1.1.5 Competition Jury

The Competition Jury was formed in accordance with Section 3.2 of the Competitive Design Policy. The Jury comprised a total of six (6) members, with three nominated by Council, each of whom have no pecuniary interest in the development or involvement in the development approval process, and three nominated by the Proponent.

The Jury comprised the following members:

- Three nominated by Council:
 - **Shelley Penn** (Chair) – Shelley Penn Architect;
 - **Andrew Cortese** – Partner – Grimshaw; and
 - **Professor Richard Johnson AO MBE** – City of Sydney Design Advisory Panel & Founding Director – JPW.
- Three nominated by the Proponent:
 - **Michael Coombes** – Director – Coombes Property Group;

- **Stuart Penklis** – Head of Residential – Mirvac; and
- **Diana Sarcasmo** – General Manager Design, Marketing and Sales – Mirvac.

Each Jury member agreed at the commencement of the Competition to comply with the following obligations:

- Have no contact with any of the Competitors in relation to the subject site and the Competition from their time of appointment until the completion of the process, other than during presentation of the submissions;
- Evaluate submissions promptly in accordance with the Competition timetable as per the Key Dates in Section 1.8 of the Brief;
- Abide by the requirements of the Competition Brief;
- Observe complete confidentiality regarding the Competition from the time of their appointment;
- Consider planning or other technical advice provided by the City of Sydney;
- Refrain from introducing irrelevant considerations in addition to, or contrary to those described in the Competition Brief, or contrary to the statutory framework relevant to this site;
- Make every effort to arrive at a consensus in the selection of a winner; and
- Prepare an Architectural Design Competition report explaining their decisions.

The substantial breadth and depth of experience across the Jury ensured there was considerable debate and rigour applied during the deliberation and selection process.

1.1.6 City of Sydney Observers

In accordance with the Competitive Design Policy, the following Council staff were present as observers at different stages of the Competition:

- Graham Jahn, Director of City Planning, Development and Transport;
- Anita Morandini, Design Excellence Manager;
- Ben Chamie, Design Excellence Coordinator;
- Marie Ierufi, Strategic Planning and Urban Design;
- Andrew Rees, Area Planning Manager; and
- Patrick Quinn, Senior Planner.

During the Progress Review Sessions and Jury deliberations, representatives of the Council were invited by the Proponent and Jury to outline any specific comments Council had on the Competitor's consistency with the public benefit requirements and compliance with Council's planning controls.

1.1.7 Progress Review Session

The option to participate in a Progress Review Session was given to all Competitors. Competitors were able to submit preliminary plans and an area schedule ahead of the Progress Review Session so that high level planning compliance, service requirements, buildability and cost planning advice from technical advisors could be given during the sessions. Feedback was limited to technical compliance, operational and planning matters. Minutes were taken by the Competition Manager and issued in writing to Competitors. The City of Sydney Observers were present at the Progress Review Sessions, but no Jury members took part in the review or attended the sessions.

1.1.8 Assessment and Design Process

The Jury's assessment and decision making was based on the Competitors' Final Submission (including written material and drawings supplied), as well as the presentations given to the Jury. Consideration was given to the planning, commercial and design objectives set out in the Brief as well as the buildability of the proposed design, with the following assessment criteria and weightings:

- Compliance with planning brief: 15%;
- Compliance with commercial brief: 20%;

- Compliance with design brief: 50%; and
- Buildability: 15%.

Following the final presentations, on 8 June 2018 the Jury invited Bates Smart and Ingenhoven + Architectus to provide further clarifications on their design proposals. These Competitors were allowed approximately one week until 9am, 16 June 2018 to prepare additional information clarifying certain elements of their submission as set out in email correspondence prepared by Ethos Urban on behalf of the Jury (correspondence is provided at **Appendix B**). The Competitors' responses were submitted via the Design Competition Manager website (DCM) and distributed to the Jury. This secondary process is referred to as "Stage 2" of the Competition throughout this report.

Upon receiving responses from Bates Smart and Ingenhoven + Architectus, the Jury requested further clarifications from Ingenhoven + Architectus on 20 June 2018, allowing approximately two weeks of further working time until 9am, 6 July 2018.

Following the Stage 2 submissions and presentations and the response to further clarifications, the Jury made a unanimous decision to select Ingenhoven + Architectus as the Competition Winner.

An overview of the two stages of the Competition, along with the Jury's final recommendations for design amendments, is outlined in the following sections of this report.

2.0 Chronology of Events

The design competition was run over approximately nine (9) weeks from the commencement date to the final submission lodgement date. Additional time was provided for technical review of the submissions, final presentations and for co-ordination of the Jury deliberations.

Table 1 Key Dates

Date	Event	Description
14 March 2018	Commencement of competition	Competition Brief issued to invited Competitors
16 March 2018	Competitor briefing session and site visit	Briefing session and site visit attended by Competitors
11 April 2018	Progress session lodgement date	Preliminary plans and area schedules submitted by Competitors for technical review (optional)
13 & 16 April 2018	Progress review sessions	Informal session for technical and compliance advice to be issued to each Competitor (optional)
9 May 2018	Jury briefing session and site visit	Briefing session and site visit attended by five of the six Jury members
16 May 2018	Additional Jury briefing	Additional briefing session attended by Richard Johnson
16 May 2018	Final Submission Lodgement Date	Competitors submit electronic copies via the DCM and hard copies to the Competition Manager for distribution to the Jury
24 May 2018	Technical advisor reports issued to Jury members and the City	Competition Manager circulates reports by technical advisors (excluding QS costing) to the Jury and Council
31 May 2018	QS Costing issued to Jury Members and the City	Competition Manager circulates QS costing reports to the Jury and Council
4 June 2018	Presentation material lodgement date	Presentations submitted to the Competition Manager for compliance check
6-7 June 2018	Final Presentations	Competitors present their Final Submissions and physical model to the Jury
7-8 June 2018	Jury deliberations	The Jury meet to discuss Competitor submissions and presentations
8 June 2018	Stage 2 requests for clarification issued	After initial deliberations, the Jury shortlist Bates Smart and Ingenhoven + Architectus for Stage 2. Requests for clarification of certain aspects of their design are issued
16 June 2018	Stage 2 material submission date	Shortlisted Competitors submit Design Report Addenda via the DCM
18 June 2018	Stage 2 Jury deliberations	The Jury meet to discuss the Design Report Addenda submitted as part of Stage 2
20 June 2018	Stage 2 request for further clarification issued	A request for further clarification of the Ingenhoven + Architectus scheme is issued before selection of the Competition winner
6 July 2018	Additional Stage 2 material submission date	Ingenhoven + Architectus submit second Design Report Addenda via the DCM
12 July 2018	Jury decision	The Jury meet via teleconference to discuss the additional Design Report Addenda and make final decision
18 July 2018	Notification to Competitors of decision	Letters of competition close and notification of Competition Winner issued to Competitors via email

3.0 Stage 1 – Competitors Final Submissions

A total of six (6) detailed and comprehensive architectural schemes were considered by the Jury in Stage 1 of the Competition. Each individual scheme provided a distinct and inventive response to the Brief, with each Competitor presenting a high-quality written submission and presentation. A brief summary of each scheme is provided in the following sections.

3.1 Bates Smart

The Bates Smart scheme sought to create a building that was specific to Sydney, which resonated with its urban context as opposed to dominating it. Bates Smart identified a primary civic grid (George Street and Pitt Street) and a secondary western grid (Kent Street and Clarence Street) within the CBD whose confluence was co-located with the site. As such, the tower form was comprised of two volumes: a taller, primary volume aligned with the primary civic grid and a secondary, shorter volume, named “the annex,” aligned with the western city grid. Both volumes were rectangular in form and the tower massing was generally consistent with the building envelope. Traditional Sydney materials including sandstone, bronze and copper were used in a contemporary language to further resonate with the building’s context. Bronze horizontal bands were proposed across the primary tower façade to allow for unimpeded views and to foster a sense of weightlessness, while a grid of dark, oxidised copper was proposed across the façade of the annex to emphasise its solidity. A bronze wire mesh set in glass was proposed for the roof feature to capture and reflect light, which would glisten during the day and glow at night. The tower was proposed to penetrate the podium, as an alternative solution to the more standard typologies of a tower set on top of a podium or a standalone tower adjacent to the podium.

Bates Smart proposed an environmentally responsive façade and a comprehensive and innovative range of ESD initiatives which had potential to achieve Passive House rating. A key innovation was a 200mm raised floor in all residential apartments, which created a plenum underneath the floor where hydraulic services could be contained within the apartment strata. Ventilation ducts to the façade were located at floor level and integrated with raised window-seat cavities that contained a heat exchanger between exhaust and fresh air. This allowed air intake to the apartments at a low velocity, with a return duct located near the roof at the back of the apartment to capture the natural flow of air. These innovations also allowed for flexible apartment design. A vacuum drainage system was also proposed, as well as horizontal sunshades across the main tower façade.

A southern through-site link was proposed in the podium, with a secondary laneway to the north with access to George Street. Both laneways, though having a glazed roof, were uncovered at the street entries to create an authentic city laneway feel, as well as encouraging vertical activation with the retail levels above. Two-storey retail frontages were proposed along George Street to create an active frontage, with polished bronze “portals” framing each retail tenancy. The frontages along both George Street and Kent Street were proposed to integrate with the surrounding streetscape. Kent Street vehicle drop-off was located in the basement, allowing for the hotel and residential lobbies to present strongly at the street frontage.



Figure 1 – Bates Smart tower viewed from the south-east

3.2 FJMT

FJMT proposed a “biomorphic” cluster of towers grouped into a single form, taking inspiration from nature and natural systems, in particular a Eucalyptus Tree forest. The design concept for the tower was centred around natural living and a sense of identity with homes gathered into a cluster of community. Curved and faceted glass allowed for this biomorphic façade, with proposed wintergardens allowing for continuity of form uninterrupted by balconies. The intent was to differentiate the tower from the surrounding commercial towers that exhibit prismatic geometric forms. The floorplate tapered inward towards the podium with intent to improve solar access to, and increase separation from, the surrounding buildings. “Green seams” running vertically up the tower and sky gardens would allow residents to feel connected with nature. Clear glass was proposed for the façade, with an internal cavity to contain sunshade elements (such as curtains).

The crystal-like roof feature was sculpted with reference to organic forms found in nature, and also provided surfaces to include PV cells and heliostat systems to reflect and harvest energy from natural light. FJMT’s ESD strategy was considered as an integrated approach with MEP and façade design. Maximising daylight to apartments was a central strategy, with automated systems to control sun-loading when occupants were away from home. Planting along the green seams was intended to reduce the carbon footprint of the building, remove particulate matter from the air and absorb city noises. Combined with a low energy decentralised mechanical plant system, FJMT stated that Passive House standard could potentially be achieved.

Design of the podium was strongly connected to the history of the site, in particular the Pre-European indigenous era and the Trocadero Palais de Dance era of the 1930s – 1970s. Utilising the deep block, a laneway, arcade and public courtyard were proposed. The proposed public space was organic in form, reflecting the bio-morphism of the tower and intending to provide a tranquil escape from the surrounding rectilinear urban streetscape. Potential for an outdoor screen and public art/performance space was considered in its design. Retail frontages were proposed along George Street, with the central portion of the façade angled to align with the laneway across George Street to the east. Cinema walls on the upper podium levels contained porous elements to encourage vertical activation and sightlines with the street. The Kent Street frontage was mostly dedicated to hotel arrival, with a lobby and vehicle access to the Porte Cochere. A retail tenancy and entrance to the through-site link was proposed at the southern end of the site.



Figure 2 – FJMT tower viewed from the south-east

3.3 Foster + Partners

Foster + Partners approached the design in two segments, “Quest T” for the tower and “Quest P” for the podium. The concept for their tower was to arrange three rectilinear, modular boxes of apartments within the building envelope, oriented towards the optimal views from the site. Once the apartment modules were oriented, the central core was designed so as to not impact on the apartment planning of the tower. A red-pigmented concrete structural frame was proposed in addition to the structural core system, which was exposed along various aspects of the façade. Large diameter, horizontal, timber shading elements were proposed across the exterior of the façade at the residential levels, with metal clad shading elements proposed for the hotel floors.

A variety of ESD initiatives were proposed in the design, with potential to achieve a 6 Star Green Star rating and a WELL Gold Rating. These ratings would be achieved through rainwater collection and recycling, controllable and automated building systems, combined heating and power generation, high levels of natural ventilation and good access to sunlight with shading elements where necessary. Potential for façade integrated PV cells was also proposed.

The podium design drew on brickwork used in many heritage buildings surrounding the site and throughout Sydney, with alignment of the building form responding to the surrounding streetscape. Typical brickwork framed the tenancies and lobbies along both the George Street and Kent Street frontages, with centrally located glass bricks inviting a visual connection to the interior spaces. This materiality was carried through to the terracotta canopies. A through-site link was proposed to align with Wilmot Street across George St to the east, providing access to a central atrium and “public heart.” Fine grain retail tenancies provided activation along the George Street frontage, while Kent Street provided vehicular access along the southern boundary to the central ground level drop off area and basement parking. The residential lobby and pedestrian access to the central laneway formed the remainder of the Kent Street frontage.



Figure 3 – Foster + Partners tower viewed from the south-east

3.4 Ingenhoven + Architectus

The design proposed by Ingenhoven + Architectus aimed to be a landmark for economical, ecological and socially sustainable future-orientated development. The core concept driving their design was that of being a “friendly neighbour.” This concept informed the tower form, in that it curved away from the adjacent buildings to the north, contrary to the geometry presented in the building envelope (but within its limits). A robust architecture was presented that openly expressed the building construction and materiality through exterior concrete columns running vertically uninterrupted up the façade of the tower. Intermediate sky gardens were proposed to provide visual interest and private open space for residents of the tower. The concrete columns were proposed to intersect with the ground plane, visible from Kent Street, to incorporate strong tower legibility at the Kent Street frontage.

An ‘energy façade’ was proposed with slanted horizontal elements to provide sun shading and act as potential hybrid solar collectors. In addition to these elements, the exposed structural columns were arranged and dimensioned so that they would provide additional sun shading for apartments. Further ESD initiatives included rainwater filtration and grey water recycling, intelligent building management systems and optional wind turbines within the rooftop garden.

The podium design was curvilinear and allowed the tower to present at the ground plane, with through site connections emphasising a dialogue with the Judge’s House across Kent Street to the west. The George Street frontage was proposed to consist of retail tenancies and a central entrance to the curvilinear through-site link to the building lobbies and Kent Street. The Kent Street frontage proposed a strong sense of address and arrival, with a clear visual connection to the base of the tower. To maintain a consistent street wall in the absence of podium massing along Kent Street, a porous frame was proposed to continue the existing street form across the site. Vehicle entry was proposed at the northern end of the site, with drop-off in the central northern area of the site.



Figure 4 – Ingenhoven + Architectus tower viewed from the south-east

3.5 SOM + Crone

The SOM + Crone scheme proposed a pair of slender towers, linked by a “bridge” corridor on each floor, with a fine-grain porous podium. By proposing two connected tower volumes, six corners were created in an attempt to improve apartment and hotel amenity and views. A reveal between the two towers also allowed sunlight and ventilation to penetrate into the circulation corridors. A neutral coloured glazed curtain wall façade was proposed, with warm grey spandrels and shading fins providing horizontal articulation, reducing in width as the tower height increased. The podium design utilised a material palette inspired by the Australian landscape, with sandstone clad mullions, sandstone block walls within the hotel arrival space and textured timber-coloured metal panel fascia within the podium retail area.

A variety of ESD initiatives were proposed to potentially achieve a 5 Star Green Star overall design. These included utilising natural ventilation to reduce the reliance on HVCA systems (for up to 55% of the year), rainwater collection, water efficient fixtures and a heliostat to provide ventilation and sunlight to the podium levels.

Retail tenancies were proposed along the George Street frontage, with two pedestrian links to a “hidden garden” and a through-site link to Kent Street towards the south. Kent Street featured a recessed lobby, which allowed for several retail tenancies along the frontage. Vehicle access was provided at the north of the site, leading to the hotel drop-off within the basement.



Figure 5 – SOM + Crone tower viewed from the south-east

3.6 WilkinsonEyre

WilkinsonEyre proposed a tower with an undulating, sculptural façade designed to accentuate the slenderness of the tower. The façade of the tower was designed to respond to local environmental conditions, allowing for appropriate natural ventilation and wind protection. A series of vertical gardens were proposed along the southern aspect of the façade to improve residential amenity and promote a sense of community within the ‘vertical village.’

The sustainability strategy for the scheme provided numerous initiatives to achieve a potential 6 Star Green Star rating. These included grey water recycling, smart metering of residential apartments, green spaces and gardens, high performance glazing and potential PV panels at the rooftop.

The undulating form of the tower façade was referenced at the George Street podium frontage, with an inflecting surface articulated with crystalline blades proposed at the upper podium levels. Retail tenancies were proposed at ground level, with outdoor seating along the southern portion of the frontage. A through site link was proposed with a large, singular entry point at the centre of the site at George Street, contracting to funnel pedestrians through the site. At the Kent Street frontage, a vehicle drop-off for the hotel was proposed with two vehicle entry/exit points. The residential lobby was set-back from the Kent Street frontage towards the centre of the site.



Figure 6 – WilkinsonEyre tower viewed from the south-east

4.0 Quantity Surveyor Assessment

In accordance with Section 5.10.1 of the Brief, Rider Levett Bucknall provided cost estimates for each of the final submissions. The total estimated cost for each scheme is presented in **Table 2** below. As per these cost estimates, no scheme in the form presented in its final submission met the construction budget of \$500 million as prescribed in Section 4.3.5 of the Brief.

It should be noted that the cost estimates excluded design contingencies, design fees, development costs other than construction, lessee fit-out and GST. Since the costs were based on preliminary design information, the estimates should be regarded as indicative and used for broad cost comparison purposes only (not for feasibility purposes).

The Quantity Surveyor also identified potential risks and opportunities for cost reductions for each Competitor submission.

Table 2 Quantity Surveyor cost estimates

Competitor	Estimated Cost
Ingenhoven + Architectus	\$567,582,381
Bates Smart	\$581,030,287
FJMT	\$609,793,637
Foster + Partners	\$601,007,496
SOM + Crone	\$578,972,216
WilkinsonEyre	\$586,547,974

Source: Rider Levett Bucknall

5.0 Jury Assessment

Key components of each scheme and a summary of the Jury’s assessment of the schemes is provided in the following sections.

5.1 Podium

General compliance with the podium envelope was observed across all Competitors, with some minor departures from the envelope and layout observed in some submissions. In the following sections, the Jury assessment of significant podium elements is outlined.

George Street Frontage

All schemes proposed significant retail activation along the George Street frontage, with at least one pedestrian entry point to the retail podium and through-site link(s) to Kent Street. The Jury noted that the choice of material, façade composition and detailing for several schemes did not successfully integrate with existing buildings along George Street.

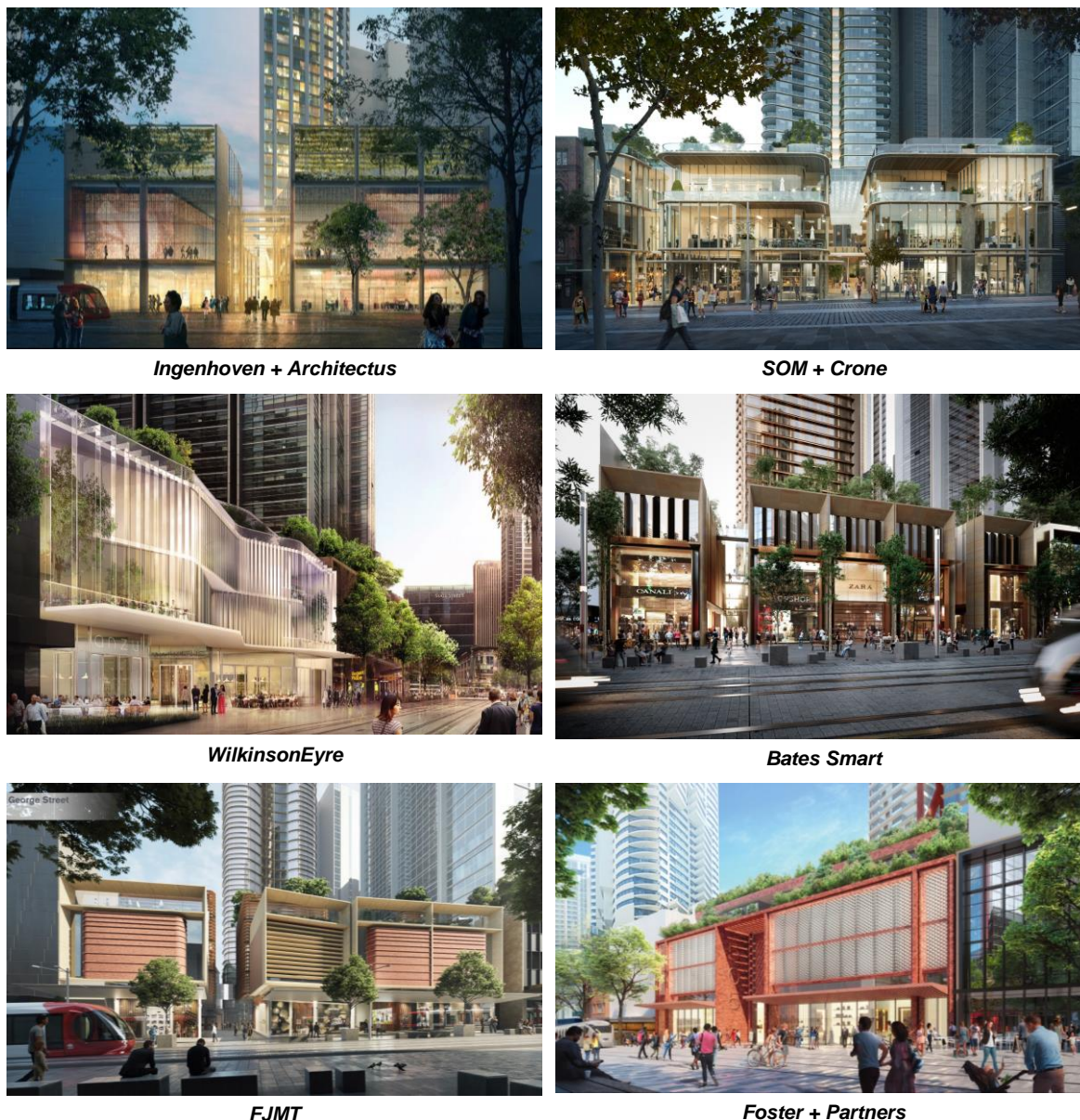


Figure 7 – View of the podium from George Street – all submissions

Kent Street Frontage and Address

The requirement to provide an active frontage along Kent Street was achieved with varying degrees of success between the Competitors. Two schemes proposed departures from the DCP requirement to include a single vehicle entry at the northern end of the site, with the Jury indicating that in at least one of these schemes the frontage could be dominated by vehicle movement.

The concepts of address and arrival for both the hotel and residential components were applied differently by each of the Competitors. While all vehicle access was proposed via Kent Street, SOM + Crone and Bates Smart proposed hotel drop off in the basement levels, while the other schemes proposed drop offs at grade with the Kent Street entrance. The Jury indicated that the Ingenhoven + Architectus scheme presented a strong sense of arrival for the residential tower by allowing tower legibility as it met with the ground plane, but that the hotel vehicle drop off solution may require further resolution. All other schemes proposed that the podium form be read from street level.



Ingenhoven + Architectus



SOM + Crone



WilkinsonEyre



Bates Smart



FJMT



Foster + Partners

Figure 8 – View of the podium from Kent Street – all submissions

Retail

All schemes proposed a through-site link from George Street to Kent Street. Additionally, SOM + Crone, FJMT and Foster + Partners each proposed a significant open space at the centre of the site. The Jury raised concerns about the useability of these open spaces during adverse weather conditions (particularly wind and rain), poor access to natural sunlight due to overshadowing of neighbouring buildings, as well as their impact on retail vibrancy, street activation to George and Kent Street, flexibility and commercial viability of other podium elements. Security and access to the podium and retail levels was also raised by the Jury, with further consideration to be given at the detailed design phase.

The Jury noted that the floorplan for most schemes provided limited retail flexibility, particularly with regard to the potential conversion of cinema space to retail space. This would need to be explored further in design development, with the Jury being unanimous in wanting a viable and successful podium over the long term.

5.2 Tower

All schemes were generally compliant with the DCP tower envelope, apart from minor exceedances due to façade/structural elements in the Ingenhoven + Architectus and Bates Smart schemes. Three of the proposed schemes (Bates Smart, FJMT and Foster + Partners) exceeded the maximum tower floorplate area of 1,000sqm gross building area. With the exception of Foster + Partners, all schemes achieved close to the target apartment and hotel room yield prescribed by the Brief.

The design objectives set out in the Brief sought a timeless and elegant tower form. This informed the Jury's deliberations, with all schemes responding to this objective with varying levels of success.

Form and Articulation

Each Competitor achieved tower articulation using different methods, either separating the tower into two or more volumes, sculpting the tower form or presenting external structural elements across the façade. Horizontal articulation was expressed using spandrels, sunshade elements or intermediate sky garden levels. The Jury indicated that while many schemes proposed a well-articulated tower form, not all were capable of being considered timeless and elegant.

Residential Apartment Planning

Optimisation of internal apartment amenity was a key design objective as set out in Section 4.2 of the Brief, particularly with regard to solar access, natural ventilation, views and privacy. As such, apartment planning was a significant consideration for the Jury throughout their deliberations.

The Jury noted that schemes which proposed a variable floorplate limited apartment flexibility. Similarly, several schemes proposed significant structural elements that were not fully integrated with the apartment design, potentially detracting from apartment views. The Jury agreed that the schemes which sought to maximise corner apartments with orthogonal plans provided the greatest apartment planning flexibility compared to the schemes that proposed a less standard floorplate geometry.

Vertical Transport

Vertical transport was also a key consideration for the Jury, with several Competitors proposing innovative lifting solutions, such as twin lifts, to achieve appropriate performance and servicing for both the hotel and residential components of the tower. The Jury noted that the use of twin lifts presented the opportunity for a compact core, which in turn led to improved outcomes in apartment and hotel planning. However, by incorporating twin lifts the configuration of ground level lobbies became complex to resolve, with Competitors addressing this with varying degrees of success. The review of vertical transport strategies will need to continue in design development.

ESD and Innovation

All Competitors made efforts to address the ESD initiatives set out in the Brief and the Voluntary Planning Agreement. ESD was addressed to varying levels of detail by Competitors. The Jury commended Competitors who provided a comprehensive and innovative strategy, particularly where Passive House standard was targeted. It was also noted that certain schemes presented a modular ESD/innovation strategy that could be scaled and adjusted

without compromising the design intent of the submission. The Jury noted that ESD initiatives required further investigation in the context of viability and practicality, particularly for new initiatives proposed for the local market.

5.3 Overall Assessment

The Jury noted the significant skills, effort and resources that were invested by all six architectural firms in their preparation of the submissions to the Competition.

However, at the conclusion of their deliberations, the Jury could not select a Competition Winner and determined that Bates Smart and Ingenhoven + Architectus provided the two submissions that best responded to the brief and were most capable of achieving design excellence. Hence these two Competitors were short-listed and requested to provide further resolution on key design issues.

5.4 Stage 2 Matters for Consideration

The Jury determined that Bates Smart and Ingenhoven + Architectus address the matters for consideration outlined below as part of their Stage 2 submission. The Stage 2 matters were to be addressed by providing 1:100 typical floor plans in PDF and DWG format of the basement, podium, low, mid and high rise residential levels, and one typical hotel level. The additional information was to be packaged as an addendum to the original Design Report with any additional explanatory text included as necessary. Competitors were provided with one full week to address the matters for consideration.

Bates Smart

The Jury considered that to provide a truly efficient vertical transport solution, consideration was to be given to the following:

1. The inclusion of an additional lift shaft and a dedicated residential goods lift to serve all building floors; and
2. Complete separation of the hotel and residential lobbies to be located on the Kent Street level consistent with Section 4.2.13 of the Design Brief.

The Jury requested that Bates Smart also consider the proposed vertical transport solution's impact on the apartment planning and typical residential floorplates, specifically noting the requirements of Section 4.2.13 "Residential Apartment Building Objectives" of the Brief.

Ingenhoven + Architectus

The Jury requested that Ingenhoven + Architectus consider the following:

1. The proposed structural solution's impact on the apartment planning and residential floorplates, specifically noting the requirements of Section 4.2.13 Residential Apartment Building Objectives particularly noting Section 4.2.13.1 Apartment Planning Principles which states that "to achieve the best possible overall outcome, the design process is to give equal priority to internal planning and external architectural expression. Mirvac strongly values the internal amenity of the apartment planning" and that the Competitors "ensure structures (i.e. walls, columns or solid balustrades) do not obscure the view".

The base scheme presented in the Competition submission contained perimeter columns (4.5m centres) with internal columns to achieve a 200mm flat slab. The internal columns and every second perimeter column transferred between the typical floor and the lobby. During the Competition presentation on 7 June 2018, alternate column arrangements were discussed to optimise the structural system and at the same time retain the proposal's façade form – i.e. the opportunity to reduce the number of perimeter columns, locate columns inboard from the perimeter and the potential use of mega columns.

To this end, the Jury requested that, while retaining apartment planning flexibility and the architectural expression through externalised structural columns, the quantity and size of external columns be reviewed and rationalised and a revised schematic structural design be provided. In addition, indicative alternative plans for typical residential and hotel floors that show how the structural solution can be integrated to best meet the Section 4.2.13 objectives were to be provided.

2. The impact of Item 1 on the integrity and integration of the ESD facade initiatives, particularly solar control and ventilation.
3. The inclusion of a revised vertical transport solution utilising TWIN lifts to reduce the core requirement and enhance internal planning flexibility. The revised vertical transport strategy should consider the inclusion of a dedicated residential goods lift separate from the hotel goods lift servicing all floors; and

Detail the architectural and floor plan strategy for addressing the north-west interface with the southern blank façade of Frasers Suites and any future development which may occur on 525 George Street to the South.

6.0 Stage 2

A brief description of the Design Report Addenda submitted in response to the Stage 2 requests for clarification issued by the Jury is provided below for the Bates Smart and Ingenhoven + Architectus schemes.

6.1 Bates Smart

In response to the Jury's request for clarification, Bates Smart provided an additional lift shaft and dedicated residential goods lift servicing all residential floors in the north-west quadrant of the proposed lift core, as shown in **Figure 9** and **Figure 10** below. The lift was accommodated in space previously occupied by the escape stair access corridor, with the escape stairs being reconfigured to the south of the core.

The above modifications to the core provided an increase in net saleable area of 2m² per floor, as well as a reduction of 3m² per floor of Gross Floor Area, which could potentially be reallocated throughout the building.

Bates Smart noted that their original submission proposed a shared 'grand room' entry lobby off Kent Street, with vertically separated lobbies. Complete separation of the hotel and residential lobbies was achieved by providing two entry doors within the two sandstone portals off Kent Street. A screen of fine vertical rods was proposed to spatially divide the lobbies, with a shared concierge desk located between the hotel and residential lobby (**Figure 10**).

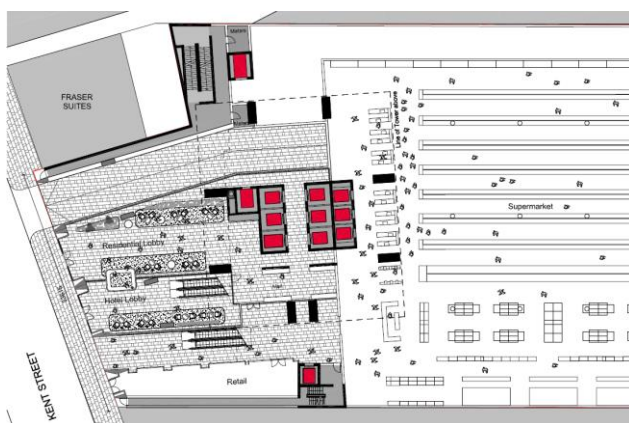


Figure 9 – Bates Smart revised Kent Street plan



Figure 10 – Bates Smart revised low-rise residential plan

6.2 Ingenhoven + Architectus

Ingenhoven + Architectus provided a revised design that rationalised the structural system, attempted to improve apartment amenity and planning flexibility, introduced a dedicated goods lift by utilising TWIN lifts and addressed privacy and views at the interface with Frasers Suites to the north-west and potential development to the south.

The rationalised structure reduced the number of external columns from 26 to 17 (**Figure 11 and 12**), also removing the need for a transfer at lower levels. Façade column spacing was developed to integrate with room sizes and dimensions, functioning as natural separations between apartments where possible. In addition, the width of horizontal shading elements was increased to compensate for the loss of shading produced by the rationalised façade columns. The ventilation strategy was also refined by introducing vertical louvers on either side of the façade columns.

A revised apartment layout was provided, as shown in **Figure 13**. The revised layout was integrated with the rationalised façade column grid and reconfigured in an attempt to improve apartment amenity. The north-eastern apartments were re-oriented towards the north-eastern views, while vertical louvres were proposed at the north-west and south of the façade to address privacy and view issues associated with Frasers Suite to the north-west and potential future development to the south.

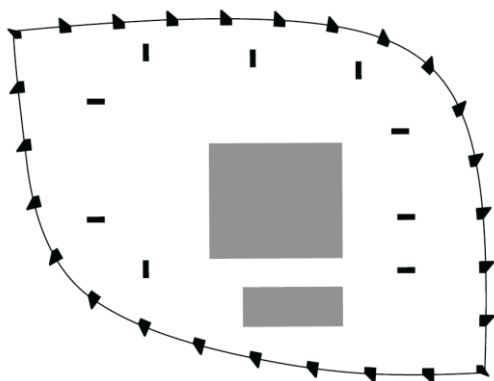


Figure 11 – Ingenhoven + Architectus original structural proposal

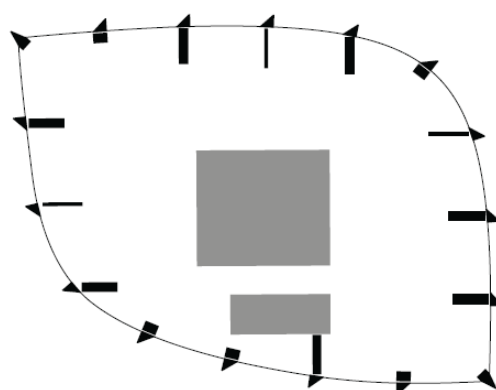


Figure 12 – Ingenhoven + Architectus revised structural proposal



Figure 13 – Ingenhoven + Architectus revised low-rise typical floor plan

Request for Further Clarification

In consideration of the Stage 2 Design Report Addenda submitted by Bates Smart and Ingenhoven + Architectus, the Jury identified additional areas of the Ingenhoven + Architectus design that required confirmation with regards to structure, apartment planning, vertical transport and solar protection.

As such, a further submission was requested from Ingenhoven + Architectus to demonstrate, at a conceptual level only, the design’s ability to meet the design objectives in the Brief and to achieve design excellence. This additional request was approved by Council on the basis that the Jury indicated Ingenhoven + Architectus was the preferred scheme and could potentially be selected as the winning scheme pending further clarification relating to the abovementioned matters. The Competitor was given two weeks working time to provide 1:100 typical floor plans in PDF and DWG format of all podium levels, the low, mid and high rise residential levels, and one typical hotel level, along with written responses to the requests for further clarification. The request issued to Ingenhoven + Architectus is presented in **Appendix C**.

Response to Request for Further Clarification

Ingenhoven + Architectus provided a second design report addendum that responded to each item in the Jury’s request for further clarification. Key components of the response are outlined below.

- Potential reconfiguration of the core to have a north-south orientation was considered, however an east-west core was confirmed as the preferred option as it provided for more appropriate apartment depths;
- Refinement of apartment layouts, building form, façade detailing and angling of the vertical columns to improve residential amenity.
- Further consideration of the lifting system and confirmation that the twin lift concept was capable of providing sufficient performance without a separate low-rise lift bank, resulting in 8x twin lifts; and
- Refinement of the solar protection strategy and façade system.

7.0 Competition Winner

Following the Stage 2 deliberations, the Jury selected Ingenhoven + Architectus as the Competition Winner, subject to **Section 7.1 Further Amendments to Winning Scheme**. The Jury was unanimous in its decision for the following reasons:

- The Ingenhoven + Architectus scheme is compelling in its clarity and elegance as a timeless and poetic new addition to the Sydney skyline and as an urban response at ground level;
- The tower is deceptively simple. It presents as a single form but, through a curved façade articulated by an expressive layering of vertical faceted columns and secondary horizontal shading elements, reads as a slender, refined and dramatic contribution to the city;
- The use of a light-coloured concrete and the texture created by the expressed structure and shading elements responds and contributes to a recognisable Sydney tower language in contemporary form;
- The design delivers on its philosophy as a 'friendly neighbour' offering a seamless integration into the urban landscape whilst contributing to the functionality, vibrancy and amenity of the George Street precinct;
- The finesse of the shading elements and sharpness of detail is offset against the mass of the columns creating a refined and compelling play of light and shade;
- The design concept provides a unique opportunity to deliver a world-class retail vision. The simplicity of the conceptual diagram at ground level, and its expression as developed through the podium levels ensures the design's special character will be experienced in an authentic and legible way by users;
- The podium and tower are brought together in an integrated, holistic solution. This ensures the presence and character of the tower is also read at ground level, and contributes to a unique and authentic ground level experience which is at all times connected to the presence of the tower and its place in the wider city context;
- The podium 'street wall' screen above ground level, at a height appropriately related to its neighbours, presents a powerful and engaging contribution at both George and Kent Streets – providing consistency and coherence with the streetscape context, while also animating and illuminating the development at its urban interface, and inviting engagement;
- The scale and grain of the design proposition at street edge responds effectively to context and ensures the scheme 'knits' within its urban setting while significantly enhancing the pedestrian experience;
- The clarity of the through-site link as a legible urban connection is supported and the concept should be developed to ensure the commercial and design objectives outlined in the Design Brief are achieved;
- The set back at ground level on Kent Street balances activation and animation with deference to the Judge's House and its significance as a heritage place;
- The expression of the tower's vertical columns at the perimeter is also evident within the apartments and hotel levels, bringing a non-generic and authentic sense of identity and belonging to the experience of these interior spaces;
- The punctuation of the tower's expression with spaces associated with amenity levels and expressed belt trusses creates visual dynamism and intrigue from a distance, while also modulating the tower's scale and height;
- The concept of integrating soft landscape at key levels, and vertically through the tower in conjunction with accessible plant spaces, is supported in principle and will require further consideration to ensure ongoing practicality and viability; and
- Overall, the design is exceptional in its clarity and resolution as a holistic podium and tower concept which will contribute a compelling, enduring and beautiful tower element within the heart of Sydney and a robust, engaging and authentic experience for pedestrians and other users at the street level.

7.1 Further Amendments to Winning Scheme

The Jury identified a range of matters that will need to be resolved during the design development phase of the project to ensure the design adequately responds to the design Brief and achieves design excellence while maintaining the original design intent. These matters are outlined below.

Tower

- The Jury requests that further work is undertaken to enhance consistency with the Apartment Design Guide. The design does not currently achieve the solar and daylight access design criteria under ADG Objective 4A-1. The Jury notes that to achieve the solar and daylight access design criteria, the building form may require minor adjustment and the hotel may be required to be relocated within the tower. Further work should maintain the design intent and architectural integrity of the tower.
- The Jury questions the viability of the vegetation proposed on the mid-levels and the roof. These areas should be reviewed to ensure the overall floor space provision is not restricted, and that any landscaping be carefully resolved to ensure appropriate species mix is supported by adequate soil depths, micro climate, irrigation, drainage and on-going maintenance.
- The Jury requests that residential planning is reviewed and refined to ensure the requirements set out at Section 4.2.13 of the Competition Brief are achieved.
- The Jury requests that hotel planning is reviewed and refined to ensure the requirements set out at Section 4.2.12 of the Competition Brief are achieved.
- The Jury requests that the wintergarden design is further developed to ensure consistency with DCP 2012 clause 4.2.3.13 Wind Affected Balconies.

Podium

The Jury considers that the podium planning, in its current form, does not fully achieve the design and commercial objectives set out in the Competition Brief. The following must be reconsidered in consultation with the Proponent. Further work must maintain the design intent and architectural integrity of the concept for the podium:

- The achievement of the design and commercial objectives set out in the Competition Brief with particular regard to:
 - Section 4.2.2.2 Podium Design;
 - Section 4.2.2.5 Retail and Entertainment Podium Building Requirements;
 - Section 4.2.2.3.1 Childcare Facilities (also recognising the design endorsed by the City of Sydney as part of the Voluntary Planning Agreement); and
 - Section 4.2.2.3.2 Community Meeting Facility.
- The location of the mid and high rise residential lobby;
- The location and extent of voids in the context of future leasing requirements outlined in Section 4.2.2.5;
- Wind and weather impacts on the outdoor residential amenities; and
- Wind and weather impacts on the retail pedestrian areas.

ESD

The Jury acknowledges the aspirational ESD targets in the Competition Brief and requests that appropriate consideration be given to the ESD strategies proposed by the Competition Winner. The Competition Winner should seek to achieve the ESD strategies in the context of Section 4.3 of the Competition Brief.

Hotel/Residential Porte Cochere

The Jury requests further work is undertaken to refine and enhance the pick-up / drop-off methodology for the hotel and residential apartments.

General

The Jury requests that the design, including ESD initiatives, be further developed to align with the design objective to create a timeless and elegant building form with a façade that minimises unnecessary lifecycle maintenance; and the target construction budget of approximately \$500 million (AUD). Materials proposed should be consistent with the Commercial Objectives outlined in Section 4.3 of the Competition Brief, while maintaining the design intent. Cost saving measures are to be identified and investigated in the further development of the design without impacting on the fundamental design integrity of the competition winning design proposal.

The Jury believes that the Ingenhoven + Architectus scheme is capable of achieving design excellence following the resolution of the matters outlined above. It is noted that the public benefit components of the scheme will remain the subject of the Planning Agreement between the Proponent and the City of Sydney.

8.0 Conclusion

This invited Architectural Design Competition has been carried out in a professional and transparent manner in accordance with the Brief, the Design Excellence Strategy and the Competitive Design Policy. This Architectural Design Competition Jury Report documents the competitive process and the Jury's selection of Ingenhoven + Architectus as the Competition Winner.

The Jury consider that the selected Competitor's design demonstrated a superior response to the design, commercial, and planning objectives of the Brief, and subject to the recommendations above is capable of achieving design excellence.

Overall, the significant efforts made by all Competitors are recognised, and the Jury, Coombes Property Group and Mirvac Projects wish to thank Bates Smart, Foster + Partners, FJMT, Ingenhoven + Architectus, SOM + Crone and WilkinsonEyre for accepting to participate in this significant architectural exercise.