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Sydney’s tallest residential tower to be designed by ingenhoven architects in cooperation with architectus

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The architectural firms ingenhoven architects and architectus have won the international competition for a mixed-use tower at 505-523 George Street in Sydney with a height of 270 meters. The announcement was made by the clients, Mirvac and Coombes Property Group.
The winning entry is a 79-storey signature tower, which, as the highest residential building in Sydney, will be a profoundly visible landmark standing for an economical, environmental and socially sustainable, future-oriented development. The project is characterized by the connection of a slender, elegant design with the plausible interplay of mixed uses such as high-quality living, retail, a hotel, as well as leisure and childcare facilities. The building will thus greatly invigorate public life in the surrounding area.
ingenhoven architects' and architectus’ design was chosen ahead of five internationally acclaimed architectural firms including Skidmore, Owings and Merrill partnered with Crone, Wilkinson Eyre, Foster + Partners, fjmt and Bates Smart. The winners have collaborated successfully once before, creating 1 Bligh, a 28-storey tower with a height of 139 meters and Australia’s first truly “green” high-rise. It was awarded with the International Highrise Award in 2012.

“Now we have combined our expertise once again by designing a tower which will be highly integrated in the existing surroundings and offer a great public domain. This urban approach is based on the philosophy of a well-connected public and conceives of the tower as being a 'friendly neighbour'. The combination of different uses and the timeless design of the building are integral parts of an environmentally sustainable

approach but also expression of a deep understanding of the project goals", said Christoph Ingenhoven, owner and founder of ingenhoven architects.

Ray Brown, Managing Director at architectus, added: "We are looking forward to working with the team at ingenhoven again on another significant Sydney project. Our collaboration on 1 Bligh Street was very successful and we aim to emulate the same quality and success with 505 George Street."

The very prominent location of the building in Sydney's Central Business District led to a simple yet elegant façade design, which laid great emphasis on the undisturbed view to the outside. It will be a single skin façade with external sun shading devices and balconies, which have been designed as naturally ventilated spaces with a glass windshield, effectively functioning as winter gardens.
In keeping with ingenhoven architects' supergreen® sustainability aspirations, special attention was paid to energy use and environmental impact. For example, to achieve maximal daylighting effects, angled façade elements will be used as hybrid solar collectors on the north façade. Both electricity and domestic hot water can be generated with one element while preventing the building from overheating. For the south façade, intelligent cooling systems will be applied.

The material palette is based on the idea of pure and non-composite materials, which are local to Sydney and typical for the regional architecture. Accordingly, choosing such materials does not only make sense in terms of the locality-based aesthetics but also in terms of the drastically shorter and thus much less energy-consuming transport. All proposed façade and building materials have been chosen with respect to sustainability, durability and authenticity in order to create a timeless and "healthy" building. Among these materials are sand-coloured fair-faced concrete, sand-coloured precast concrete elements, low-iron glazing and anodized aluminium for the façade, mirror-finished stainless-steel cladding, recycled timber for terrace decks and venetian blinds.
An particular structural system was developed for the building, consisting of a post-tensioned flat slab concrete floor structure with a perimeter column grid and internal columns within party walls. The column grid will allow the development of efficient floor framing systems. The lateral system for the tower comprises a reinforced concrete core structure with outriggers and perimeter belt trusses at three discrete levels up the height of the building.

ingenhoven architects are one of the leading international architectural firms with regard to sustainable architecture. Ecologically and economically responsible handling of resources is at the core of their designs. This quality has been confirmed by the highest certifications according to international standards, including LEED (US), Green Star (Australia), BREEAM (GB), DGNB (Germany) and CASBEE (Japan).
The office have extensive experience with large-scale international projects such as the Toranomon Hills Project in Tokyo and the Breezé Tower in Osaka (2005–2008). The largest project by ingenhoven architects yet is Marina One in Singapore, comprising 400,000 square meters. The high-rise complex, in which 20,000 people will work and live, features two office and residential buildings that enclose a large public garden.