

VANCOUVER HOUSE



ARCHITECTS Bjarke Ingels Group (design architect), DIALOG (architect of record), James K.M. Cheng Architects (advising architect)
LOCATION Vancouver, British Columbia

Vancouver House negotiates a difficult site trisected by the Granville Bridge. The base of the tower is conditioned by two neighbouring elements. First, a 30-metre setback from the bridge greatly cuts down the area of the site. Second, concerns for sunlight reaching an adjacent park limit how far south the site can expand. As a result, the footprint is restricted to a 540-square-metre triangle—almost too small to build on.

The tower ascends as a simple extrusion of this triangular footprint. Thirty metres above the bridge, it begins to reclaim the lost area from the setbacks by expanding into a rectangular floor plate. This gradual cantilever protects residents at the lower levels from the noise, exhaust and traffic of the bridge. At the higher levels—beyond the bridge’s zone of influence—the massing maximizes real estate for the most desirable apartments.

This movement not only turns the inefficient triangle into an optimized rectangular floor plate, but also frees up a generous public space at the building’s base. The resultant silhouette resembles a curtain being drawn aside, welcoming people as they enter the city.

The 52-storey Vancouver House will house 375 residential units and will be Vancouver’s fourth tallest building when completed. The tower is situated on a 9-storey podium base, housing a mixed-use urban village offering intimately scaled commercial, retail, recreational and public spaces.

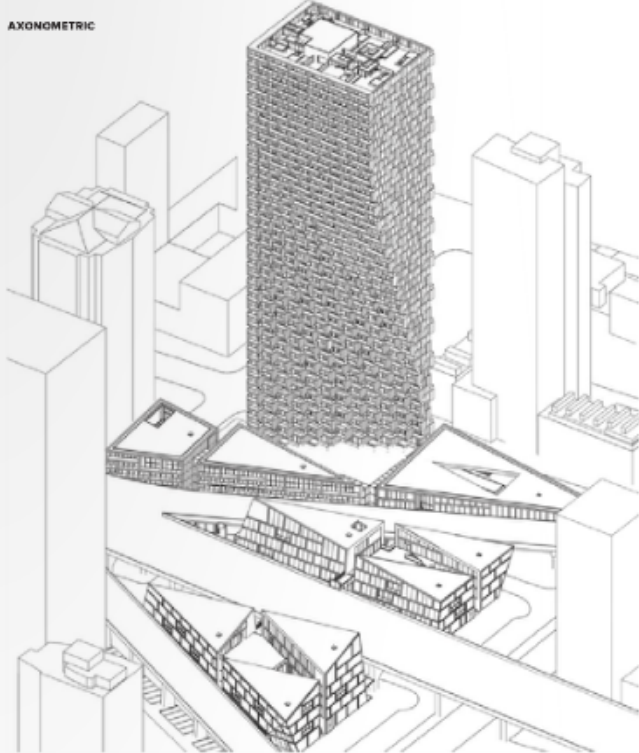
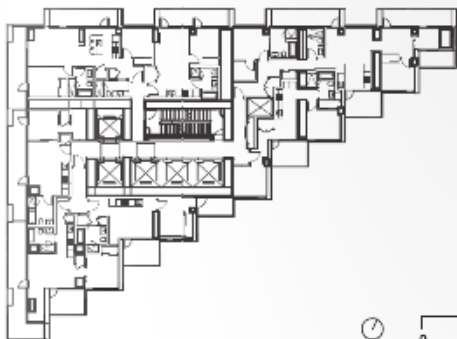
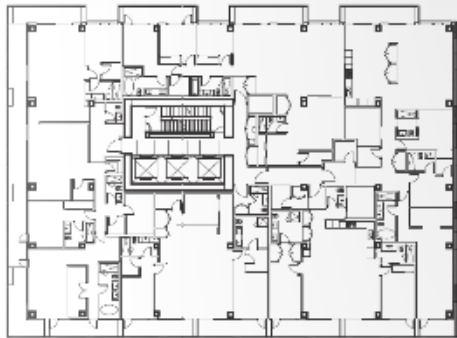
Beyond its role as the defining infrastructural element of the site, the Granville Bridge functions as an urban umbrella for the street life

underneath. Local artists will turn the underside of the bridge into an outdoor gallery, transforming the perception of this area as a new form of public space. What used to be an unfortunate side effect of a piece of infrastructure—the overpass—is re-envisioned as a vibrant covered street for a reinvented neighbourhood.

The project targets both LEED Platinum and LEED Certification for Neighborhood Development. Each façade uses high-performance, triple-glazed insulating units and all balconies are fully insulated at the top, bottom and slab edges. The envelope is designed to provide a 60-40 glazing-to-solid ratio.

The building’s shape necessitates a unique structural system. It will be the first project in Vancouver to employ vertical post-tensioning and a robust walking-column system. Stepped columns merge as they move towards the base of the building. Each offset column induces lateral thrusts into the horizontal, post-tensioned slabs at each floor, which in turn transfer this load to the core and to vertically post-tensioned shear walls.

Vancouver House’s form is a result of its circumstances: a trisected site, existing infrastructure, and concerns for neighbouring buildings and parks. City regulations were applied to the site and hidden opportunities uncovered through analyzing current urban conditions. The sculptural silhouette is not the result of formal excess, but rather the outcome of design and real estate optimization. The building appears different because it performs and responds differently. ▲



OPPOSITE Creating value from a previously neglected infill site, Vancouver House squeezes up and out from the residual spaces at the base of the Granville Bridge. **BELOW, LEFT TO RIGHT** The underside of the bridge is reinvented as an urban art gallery and covered street; the twisting tower is a striking presence in downtown Vancouver's skyline.

:: MF :: Many "leftover" sites in our cities are nice found opportunities to develop new types of buildings. That's what this project is doing. It's a focal point for people that arrive from the bridge. Even if the building is quite spectacular, this site can take it. To balance the sculptural aspect of the tower, the external façade is quite simple and subtle.

:: PH :: This is a developer's dream because the largest floor plates are on the top—that maximizes the number of units that will sell for the most. The cantilevered form is in line with the profit centre of the building, and those profits probably pay for the structural gymnastics. It's really quite brilliant.

:: JH :: We often see geometric moves in the work of architectural offices today. But in this case, it's actually coming from the zoning requirement; it's responding to a real site condition. In addition to finding an opportunity to build on an urban residual site, the project reimagines the spaces under the freeway ramps as active urban conditions. These places are often simply ignored and are in need of innovative solutions.

CLIENT WESTBANK | **ARCHITECT TEAM** BIG—BJARKE INGELS, THOMAS CHRISTOFFERSEN, BEAT SCHENK, AGUSTIN PÉREZ-TORRES, MELISSA BAULD, AMINA BLACKSHER, ARAN COAKLEY, ALEXANDRA GUSTAFSSON, ALINA TAMOSIUNAITE, ARASH AHMADIAN, ARMEN MENENDIAN, BARBORA SRPKOVÁ, BENNETT GALE, BEN ZUNKELER, BIRK DAUGAARD, BLAKE SMITH, BRIAN FOSTER, BRIAN ROME, CAROLIEN SCHIPPERS, CHRISTOPHER JUNKIN, CHRISTOPHER MALCOLM, DAVID BROWN, DAVID DOTTELONDE, DOUG STECHSCHULTE, EDWARD YUNG, ELENA BRESCIANI, FRANCESCA PORTESINE, GABRIEL HERNANDEZ SOLANO, HECTOR GARCIA, IVY HUME, JAN LEENKNEGT, JANICE RIM, JULIAN LIANG, JULIANNE GOLA, KAROL BORKOWSKI, LAUREN TURNER, MARCELLA MARTINEZ, MARTIN VOELKLE, MICHAEL TAYLOR, SEAN FRANKLIN, SPENCER HAYDEN, TERRENCE CHEW, TERRY LALLAK, TRAN LE, YOANNA SHIVAROVA. **DIALOG**—JOOST BAKKER, DOUG CINNAMON, BRUCE HADEN, VANCE HARRIS, MARION LARUE, CAMERON VERES, AIDA AGUILAR, STAN BURY, ALEXA BUSTAMANTE, MARCELLO CAULA, EVAN DYSART, KYLE ELDERHORST, LAUREN FEHR, DORIS FISCHER, WELINGTON HAU, LAURA HERBERT, CAROLE HOVELAND, RICHARD INNES, KEN JOHNSON, JANAY KOLDINGMES, TIM LAZARUK, TRACY LIU, GARY MCCAULEY, MARTIN NEAULT, ERIN PARCHOMA, BRAD PHILLIPS, KEN REA, SARA REMOCKER, PALLAVI SANGWAN, BLAIRE SCHILLE, REY TADIFA, MAHSA TASHAKOR, TREVOR THIMM, JUSTIN SIMPSON, SHELDON UBLANSKY, IVY USI, OSKAR WINNAT, JIANGENG ZENG | **STRUCTURAL** GLOTMAN SIMPSON CONSULTING ENGINEERS | **MECHANICAL** INTEGRAL GROUP | **ELECTRICAL** NEMETZ & ASSOCIATES | **CIVIL** HUNTER LAIRD ENGINEERING LTD. | **GEOTECH** GEOPACIFIC CONSULTANTS LTD. | **ENVELOPE** MORRISON HERSHFELD | **LANDSCAPE** PFS STUDIO | **INTERIORS** BIG | **CONTRACTOR** ICON WEST CONSTRUCTION CORP. | **SUSTAINABILITY & ENERGY MODELING** INTEGRAL GROUP | **CODE** LMDG | **TRANSPORTATION** BUNT & ASSOCIATES | **SIGNAGE** ZACHARKO DESIGN | **ELEVATORS** GUNN CONSULTANTS | **WIND GRADIENT** MICROCLIMATE ENGINEERING | **AREA** 716,000 FT² (ABOVE GRADE) | **BUDGET** WITHHELD | **COMPLETION** 2018

