



The High-Tech,  
Low-Carbon  
Solution for  
Multi-Storey  
Structures

Ed 25/26

# TALL TIMBER

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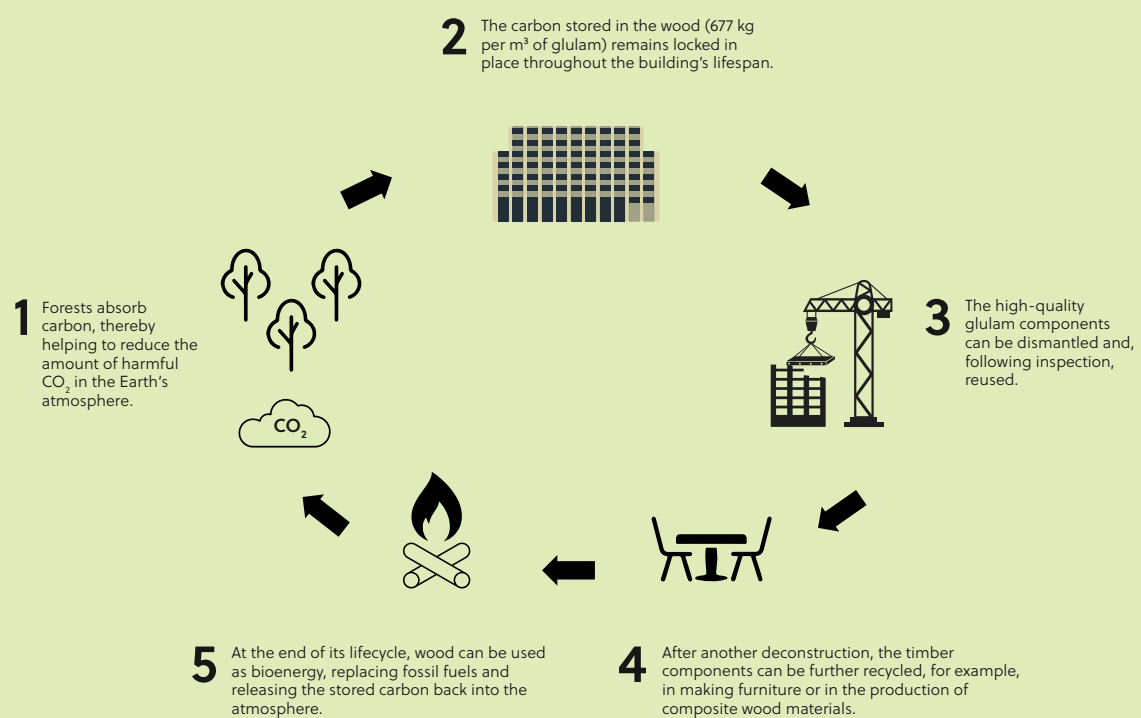
## MORE TIMBER *LESS CO<sub>2</sub>*

The construction industry is one of the largest CO<sub>2</sub> emitters worldwide, making it central to addressing our global climate crisis. Reducing emissions requires thoughtful planning and responsible design, given the lasting impact of building projects.

Sustainably sourced wood is a reusable, circular material and a powerful solution for cutting CO<sub>2</sub> emissions. As a leader in engineered timber construction, WIEHAG is committed to driving change in the industry.

We collaborate with project developers, architects and builders, providing expertise to advance sustainable building practices. Through research and innovation, WIEHAG is redefining how wood integrates into modern building systems.

### FROM TREE TO BUILDING AND BACK AGAIN...



## TALL TIMBER BUILDINGS: *SUSTAINABLE AND INNOVATIVE*

WIEHAG's timber high-rise buildings blend environmental responsibility, advanced engineering, and modern design—redefining sustainability, functionality, and aesthetics.

### TIMBER: A CLIMATE-POSITIVE RESOURCE

Timber is key to reducing the CO<sub>2</sub> footprint and advancing construction decarbonisation. Growing trees capture CO<sub>2</sub>, building with timber stores it in buildings for decades. Our wood is sourced exclusively from sustainably managed, certified forests and supports a circular economy through reuse.

### PRECISION PLANNING AND PREFABRICATION

Using detailed planning data, timber structures are prefabricated with industrial precision, transported just-in-time to site, and assembled efficiently. This method reduces construction timelines, on-site emissions, disruptions, and risks.

### BIOPHILIC DESIGN

Timber enhances well-being by creating healthier, more comfortable spaces. Tall timber buildings reconnect urban areas with nature, fostering inspiration and vitality.

### STRENGTH AND SAFETY

Timber high-rises provide exceptional strength and stability while meeting rigorous safety standards. Advanced fire protection strategies and excellent seismic performance ensure timber structures offer reliability in all conditions.



Client	Atlassian, Dexus
Support Structure	WIEHAG
Architect	BVN, Sydney & SHoP Architects, New York

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*Timber construction plays a crucial role in combating climate change. With our expertise in timber building, we are part of the shift towards more material- and energy-efficient construction methods.*



## ATLASSIAN CENTRAL *SYDNEY, AUSTRALIA*

Standing at 186 meters and 39 storeys, Atlassian Central will claim the title of the world's tallest hybrid timber commercial tower upon its completion in late 2026. This groundbreaking project sets a new standard for sustainable and intelligent commercial buildings with ambitious environmental goals.

WIEHAG played a pivotal role by delivering sustainability reports and calculations, meeting the client's rigorous requirements, and positioning Atlassian Central as a global benchmark for hybrid timber construction. The first three floors of the habitat contribute to natural airflow. Atlassian Central features an innovative adaptive thermal comfort strategy that incorporates naturally ventilated atrium "park spaces" within the high-rise commercial tower.

Thanks to the moderate climate and innovative use of solid wood, the project meets the investors' fundamental requirements: a 50% reduction in upfront embodied carbon and a significant decrease in its overall CO<sub>2</sub> footprint. WIEHAG also provided technical consulting, advanced 3D modelling, detailed design, and the production and delivery of GLT structural components and CLT elements, including pre-assembled fire protection panels. A total of 11,000 m<sup>3</sup> of timber (around 300 containers) will be delivered to Sydney. This innovative project exemplifies the future of sustainable hybrid timber high-rise construction and is a global benchmark in Hybrid Timber Construction.





# HEADQUARTERS GERMAN BUNDESLIGA SOCCER CLUB *LEIPZIG*

On a 14,500 m<sup>2</sup> site, a new office building is taking shape, set to accommodate up to 300 employees across four floors by late 2025. The project showcases eco-friendly and sustainable building practices, with timber playing a central role in both structure and design.

The building features visible glulam columns and beams, along with prefabricated ribbed ceilings made of CLT and glulam. Its centerpiece is a spacious atrium with a floating staircase, framed by an elegant WIEHAG timber structure.

Thanks to a high level of prefabrication, the timber construction was completed in just 10 weeks, with WIEHAG supplying 2,250 m<sup>3</sup> of timber components for the project.

Client	Soccer Bundesliga Club, Leipzig
Timber Construction and Engineering	WIEHAG
Architect	SHA Scheffler Helbich Architekten GmbH



*The project in Leipzig is another prime example of WIEHAG Timber Construction's expertise in international engineered timber construction. With our dedicated team of experts, we continually set new standards for innovative and forward-thinking building projects.*



# OUR HOLISTIC PROJECT APPROACH

## THE WIEHAG ADVANTAGE

### EARLY COLLABORATION

Timber construction demands a unique approach. By involving all stakeholders early, we ensure quality and cost-efficiency throughout the build. WIEHAG's expertise offers a clear advantage in planning and execution.

### COMPREHENSIVE TECHNICAL SUPPORT

From initial design to assembly calculations, WIEHAG provides extensive engineering consultation for investors, designers and contractors. Our wood-friendly solutions and technical optimisations minimise costs and streamline execution.

### SEAMLESS EXECUTION

WIEHAG integrates engineering, production, and project management into a streamlined process. Our skilled engineering team handles even the most complex projects efficiently, utilising advanced CAD programs and BIM interfaces for precision and workflow continuity.

### EXPERT PROJECT MANAGEMENT

Our core business is project management. With experienced project managers at the helm, we coordinate every detail from planning to assembly. Supported by 3D modelling and trusted subcontractor partnerships, we deliver smooth and reliable project execution.

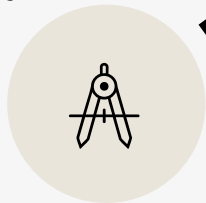


## SUSTAINABLE CONSTRUCTION FOR A SUSTAINABLE FUTURE

Since 1849, our passion for timber construction has been shaped by our history. The forest is both our origin and our vision – a symbol of growth and resilience. We create innovative timber solutions that stand the test of time, guided by this enduring philosophy. Our projects harmoniously integrate people, the environment, and architecture, fostering a future where we grow together in balance with our surroundings.

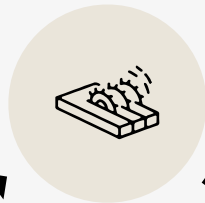
### INHOUSE ENGINEERING

- Structural Planning
- 3D CAD Design
- BIM



### PRODUCTION

- Maximum Prefabrication
- Pre-assembled Building Kits



### PROJECT MANAGEMENT

- Collaborative Project Execution
- Optimized Construction Processes



### ASSEMBLY

- Integration of Assembly into All Processes
- Consideration of Urban Conditions
- Effective Weather Protection



### LOGISTICS

- Organization of Global Transport, Including All Permits



### EPD - ENVIRONMENTAL PRODUCT DECLARATION

To meet the requirements of all our clients worldwide, WIEHAG's EPDs are certified by two recognized institutes (MRPI and IBU).

EPDs are based on life cycle assessments (LCAs) that analyze the environmental impacts of building products from raw material extraction to disposal. They provide a comprehensive evaluation for sustainable solutions. The life cycle assessment of a building includes the LCAs of the building products and the energy consumption during the use phase, from production to deconstruction.

Conducting these calculations during the planning phase allows for the ecological comparison of materials and concepts to optimize the building. This forms the foundation for sustainable structures and certification systems.

EPDs are publicly available, enabling a thorough assessment of the environmental impacts of building products.

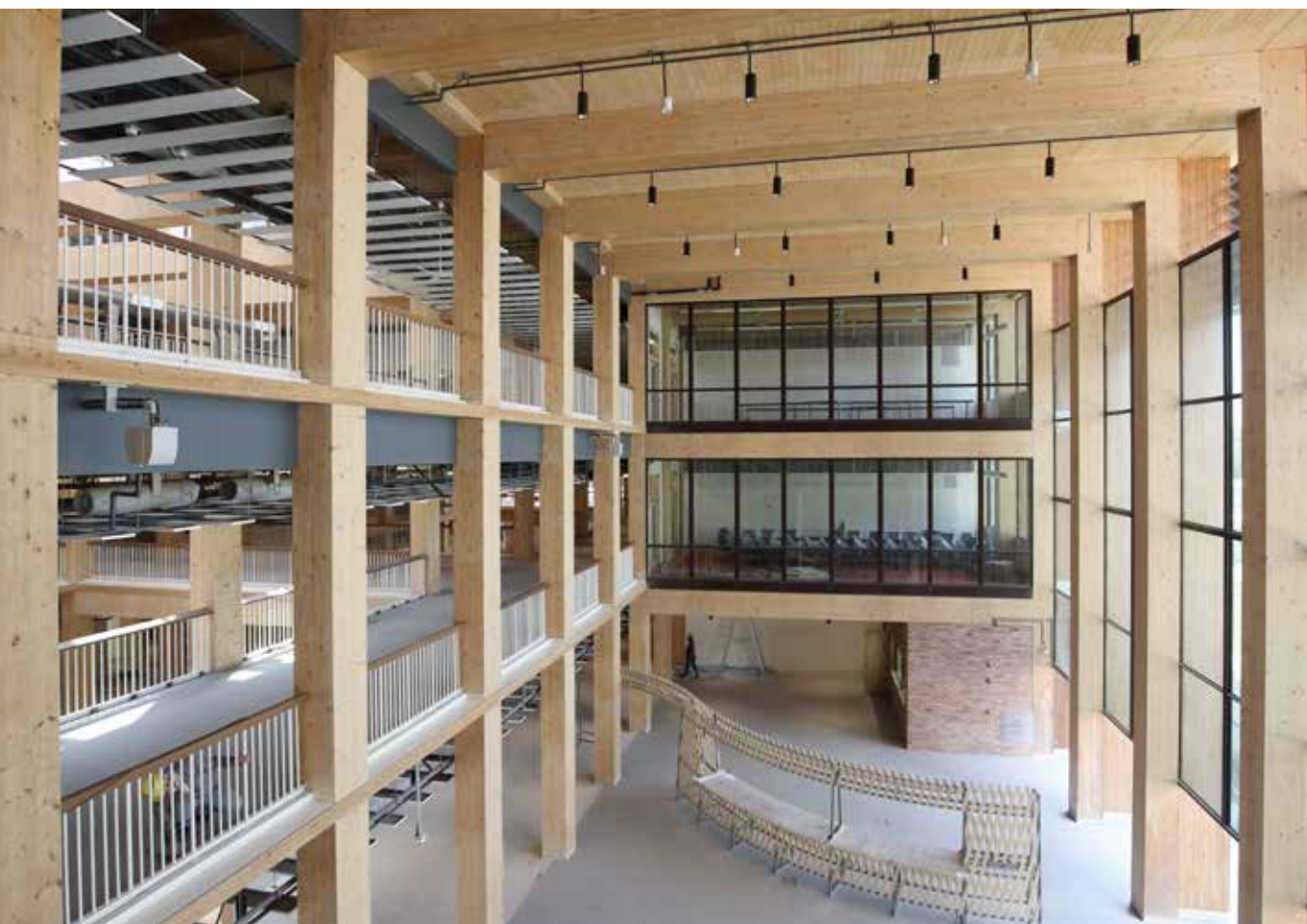


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*We constructed Asia's largest timber building alongside the Ascent Tower, the world's tallest hybrid wooden structure. WIEHAG is fully equipped to handle and execute multiple large-scale projects simultaneously.*



Client	Nanyang Technological University
Architect	Toyo Ito & RSP
Support structure	WIEHAG



## NANYANG TECHNOLOGICAL UNIVERSITY (NTU) *SINGAPORE*

By constructing the new Gaia Academic Building South, Singapore has set a milestone for the future of construction, aiming to significantly reduce CO<sub>2</sub> emissions. This six-storey building, Asia's largest timber structure, offers over 40,000 m<sup>2</sup> of usable space.

Designed by Pritzker Prize-winning architect Toyo Ito, Gaia stretches approximately 220 meters in length and 38 meters in width. Built entirely with a modular timber framing system, it sets a groundbreaking example for sustainable construction.

The project utilised around 6,000 m<sup>3</sup> of glulam (GLT) and 7,000 m<sup>3</sup> of cross-laminated timber (CLT). Over 1,900 columns and 1,660 beams were pre-assembled in the factory, surface-treated, and fitted with connectors before being delivered to the construction site via shipping containers.

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*We approach timber construction holistically and have aligned our resources accordingly. Supporting interfaces and seamlessly integrating with all other trades is a given for us.*

Client	Team 7
Architect	Motulik Architects
Support Structure & Building Shell	WIEHAG



## TEAM 7 WELT *RIED, AUSTRIA*

The Team 7 building is a pioneering timber office project in Austria, featuring a four-storey timber structure with solid wooden ceilings and a slotted curtain façade. It offers 6,200 m<sup>2</sup> of usable space. WIEHAG was the general contractor, providing technical consulting and engineering for the support structure, building shell, and flexible façade design. Our high level of prefabrication accelerated construction, and early façade integration protected the building from moisture. The spacious entrance hall is spanned by two 25-meter lattice girders.





## 25 KING *BRISBANE, AUSTRALIA*

At 45 meters tall and nine storeys high, 25 King is recognized as Australia's tallest timber office building. The structure features a glulam construction, with columns and beams supporting floor slabs made of cross-laminated timber, all delivered as part of the WIEHAG Glulam Kit. WIEHAG Timber Construction oversaw the detailed design, production, and delivery of the glulam frame, complete with all connection components, ensuring precise and efficient on-site assembly. The project utilized 1,400 m<sup>3</sup> of glulam, comprising 1,240 individually crafted pieces.



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*Our international logistics experience is a key factor in the success of our projects. Based on comprehensive 3D planning, we optimise container transport and coordinate delivery with the installation team on site.*

Client	Lendlease
Engineering	Aurecon
Support Structure	WIEHAG
Architect	Bates Smart

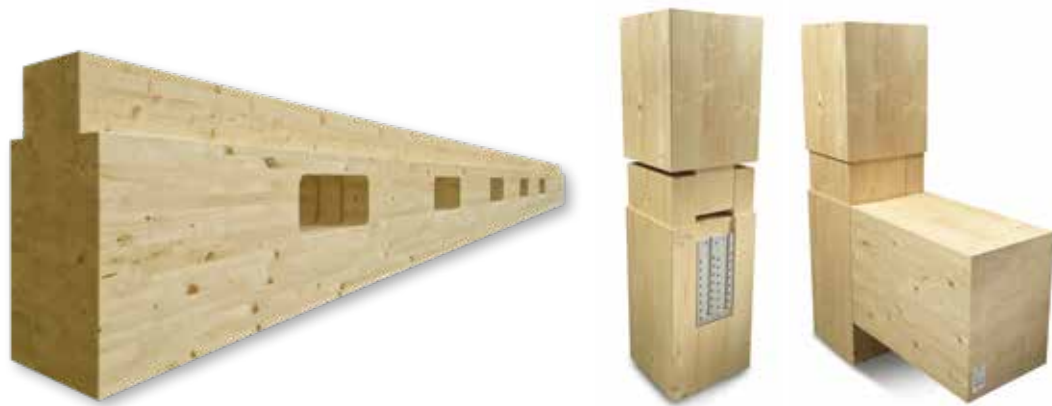




# PRODUCTION OF GLT COMPOSITE PARTS FOR MULTI-STOREY TIMBER CONSTRUCTION

## CUSTOMISED PRODUCTION

One of WIEHAG's core strengths is producing composite parts from glued laminated timber. Using special press modules, we can bond components up to 2 meters deep, 1 meter wide, and 50 meters long. For high-rise construction, we have a fully mechanized line with planing and CNC machining. Components are carefully transported between systems to maintain high surface quality.



WIEHAG specialises in the production of block-glued components and composite parts for multi-storey timber construction. Joining takes place precisely on state-of-the-art CNC systems.

## HIGHEST PRECISION LEVELS

The CNC system is tailored for multi-storey timber construction, enabling parts to be produced with precision that other materials often cannot match. In the next stage, add-on parts and fasteners are attached, and coatings are applied if needed. Finally, components are carefully packaged for shipment, with truck or container deliveries planned for efficient on-site installation.

## CONSISTENT QUALITY ASSURANCE ACROSS THE VALUE CHAIN

Quality Control monitors the entire process, from raw lamella to finished component, ensuring the highest standards are maintained throughout.



Client	DPG Media Group
Architect	SO -IL
Support Structure	WIEHAG

## THE CUBEHOUSE AMSTERDAM, NETHERLANDS

Set to be completed in late 2025, The CubeHouse will be Amsterdam's first hybrid timber building in the Zuidas district, a growing hub for business and residential spaces.

Prioritising well-being, The CubeHouse offers a WELL Gold-certified indoor climate, an exceptional rooftop garden, and three „breathing spaces“ that seamlessly blend indoor and outdoor areas.

The building is constructed with 75% recycled and/or bio-based materials, including 13,000 m<sup>3</sup> of sustainably sourced timber. This timber will store up to 9,000 tons of CO<sub>2</sub>, equivalent to the annual electricity consumption of over 10,000 households.

WIEHAG is responsible for the design, manufacturing of glulam and CLT elements, and the delivery and installation of this 13-storey masterpiece. The CubeHouse has earned an outstanding BREEAM rating, a globally recognised sustainability standard for environmental performance in building design, construction, and operation.



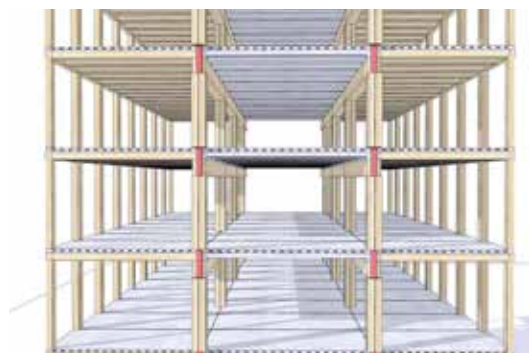
*The CubeHouse in Amsterdam is an outstanding example of biophilic design. Through the innovative use of timber and other natural materials, it creates a deep connection with nature.*



Client	UBM Development & Paulus Immobilien
Support Structure	WIEHAG
Architect	Eike Becker

## TIMBER PIONEER *FRANKFURT, GERMANY*

The Timber Pioneer in Frankfurt's European Quarter is the city's first hybrid timber office building, spanning eight storeys and 15,000 m<sup>2</sup> of floor area. It features high ceilings, exposed natural wood surfaces, and flexible layouts for diverse office configurations. The timber-frame structure incorporates 2,000 m<sup>3</sup> of wood, with mounted double beams supporting bolted prefabricated concrete components, reducing structural weight by 57% compared to traditional construction methods and achieving a CO<sub>2</sub>-neutral shell for the office floors. High levels of prefabrication enabled rapid assembly at a rate of 1,000 m<sup>2</sup> per week while minimising noise, dust, and waste. This landmark project combines sustainability, efficiency, and design innovation.



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*First-class project planning is the key to success in timber construction. To ensure that our comprehensive expertise flows into the planning process as early as possible, it is essential for us to be involved from the outset.*



Client	DPG Media Group
Architect	SO-IL
Support Structure	WIEHAG



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 General contractors and construction companies need experienced, reliable partners for timber engineering. For DPG, we took charge of designing, manufacturing, and installing the entire timber package – glued laminated timber and CLT.

## DPG MEDIA GROUP AMSTERDAM, NETHERLANDS

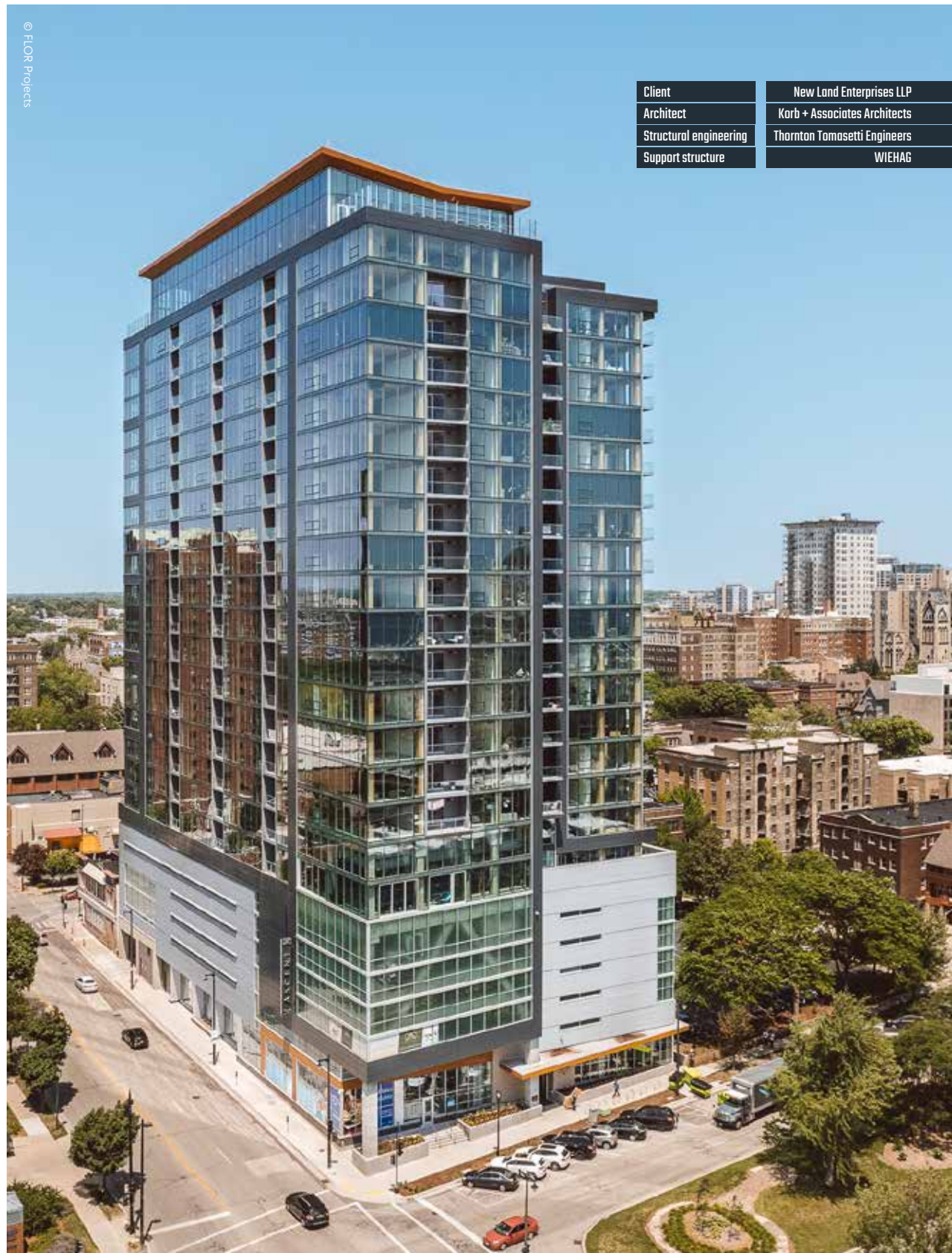
The new DPG Media office building in Amsterdam spans nearly 45,000 m<sup>2</sup> over seven floors, ranking among the world's largest hybrid timber office buildings with a strong emphasis on innovation and sustainability. Its hybrid wood structure incorporates 6,500 m<sup>3</sup> of timber, including approximately 1,050 columns and beams fabricated, surface-treated, and fitted with connectors at WIEHAG's factory before transport. These columns and beams are composed of large double- and triple-laminated timber components. Additionally, 25,500 m<sup>2</sup> of CLT panels from Stora Enso's Ybbs manufacturing plant were processed and surface-treated at WIEHAG's facility, with some laminated with glulam beams to handle high façade loads. This precision engineering highlights the project's commitment to sustainable construction.





# ASCENT TOWER MILWAUKEE, USA

Rising 86.6 meters over 25 storeys in Milwaukee's East Town district, the Ascent Tower is the world's tallest hybrid timber building, offering nearly 46,000 m<sup>2</sup> of usable space. Designed with sustainability at its core, the structure features six concrete parking levels topped by 19 timber floors, housing 259 apartments. WIEHAG supplied approximately 2,200 m<sup>3</sup> of prefabricated glulam beams and columns, delivered as complete kits with pre-installed connectors and surface finishing, which reduced construction time by 25%. Around 50% of the timber load-bearing structure remains exposed, showcasing the innovative design and commitment to sustainable construction.



Client	New Land Enterprises LLP
Architect	Korb + Associates Architects
Structural engineering	Thornton Tomasetti Engineers
Support structure	WIEHAG

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Our global orientation, our many years of international experience in different projects, and our great engineering expertise give us the competence to deal with different technical standards and guidelines at local level.



LCW Bestseller, Amsterdam



Stafford University, UK



Siemens City, Berlin

Upcoming  
WIEHAG projects

## WIEHAG Timber Construction

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