

# Hiraiwa Construction Leads Japan's Digital Transformation in Infrastructure

Embracing digital tools, international talent and sustainable practices, Hiraiwa Construction reshapes Japan's construction industry for a smarter future. *By Daniel de Bomford and Arthur Menkes*



"Digital Transformation (DX) is a critical focus for us, as it directly contributes to improved productivity."

Toshikazu Hiraiwa, President, Hiraiwa Construction Co., LTD.

Japan's construction industry is like bamboo: remarkably resilient and engineered to adapt. It has withstood economic cycles, demographic shifts and natural disasters while supporting one of the world's most complex urban environments. Within this dynamic landscape is Hiraiwa Construction. A forward-thinking and innovative one-stop firm spanning design, construction, and maintenance, it is leveraging cutting-edge technology and a bold international strategy to build smarter and more sustainably.

## The ongoing evolution of Japanese construction

Founded in 1946, Hiraiwa Construction combines its history

and experiences during the peak of the construction boom with advances in technology to meet the evolving demands of Japan's infrastructure. Toshikazu Hiraiwa explains that private construction and redevelopment projects are increasing at a time when the labor pool is shrinking, creating a shortage of contractors.

As buildings continue to age, this leads to an exponential increase in demand from governments to maintain existing infrastructure. Companies like Hiraiwa Construction are also contracted to carry out disaster recovery work, and the president cites the recent road cave-in incident as an example of their vital work. "These administration collaborations are crucial, but they also mean we are balancing a full workload across both public and private sectors," he states. Additionally, various economic situations such as the war in Ukraine has caused material prices to increase dramatically.

## Building a future-ready workforce

Hiraiwa Construction is tackling the labor challenges affecting Japan's workforce, improving employee retention and satisfaction, and enhancing overall competency. The company has worked to alleviate the financial stress caused by inflation by implementation of various treatment improvements such as increasing salaries and providing meal vouchers.

Concurrently, it has appointed a Construction Director to re-

duce the workload of field technicians, taking on clerical work that can be completed by non-technicians and assisting with surveying and other tasks.

Hiraiwa's recruitment philosophy is skill-based, and the company is eager to hire staff with expertise regardless of their nationality. "We actively hire talent from various countries, including Vietnam, Myanmar, China and Mongolia," the president says. Older veterans who are in good health can stay beyond retirement age to mentor younger staff and pass on their valuable experience to the next generation.



Construction director

## Construction's future is digital

Alongside its HR initiatives, Hiraiwa Construction is leveraging digital transformation (DX) to address labor shortages and enhance transparency. The company has pioneered the use of Building Information Modeling (BIM), a digital tool that creates 3D representations of infrastructure, providing a comprehensive view of projects.

"The use of a three-dimensional BIM model allows us to instantly perform tasks that used to take hours to reconcile multiple two-dimensional screens in your mind, at a glance," the president states.

So successful has the implementation of BIM been that two of the company's projects have been designated as BIM promotional models. These are projects where the technology has been leveraged throughout the entire process, rather than just for mock-ups and presentations.

Beyond BIM, the company utilizes drones, 3D mapping and scanning technologies. The president states that these tools are essential for large-scale projects and benefit not only the company but also local governments and communities.



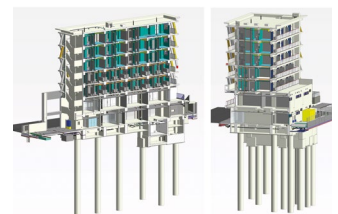
In-house designed building

## Global ambitions realized with diversification

Hiraiwa Construction's vision extends well beyond Japan's borders. In Vietnam, the company has been active for seven years, supporting Japanese firms in the region. While currency fluctuations and economic headwinds recently slowed momentum, signs of recovery are strong, with renewed inquiries and projects on the rise.

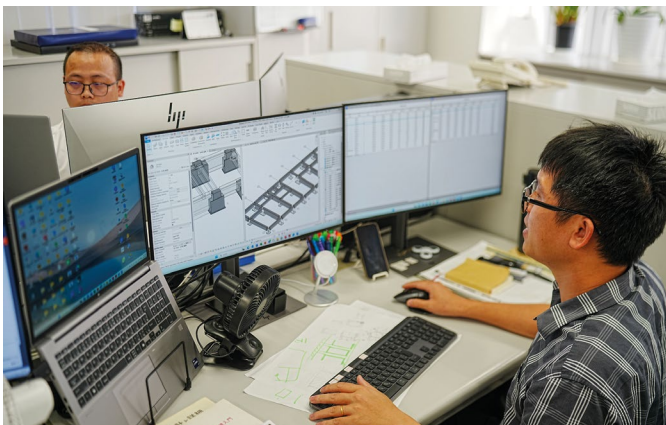
Looking ahead, Hiraiwa Construction aims to offer advanced construction expertise, particularly in cleanroom and precision facilities to Taiwanese companies, such as semiconductor manufacturers expanding into Vietnam.

The company is also considering non-construction ventures to diversify its portfolio, including the introduction of Japanese cultural experiences such as ryokans and medical-wellness services.



BIM 3D data

Hiraiwa Construction continues to blaze a trail by merging innovation and a global perspective. With strong roots in Japan and an expanding international reach, the company is poised to lead Japan's resilient industry into a new era with confidence.



Contributions by foreign employees