

COMPANY
Hongkong Land Limited
Gammon Construction Limited

PROJECT
Tomorrow's CENTRAL: LANDMARK Atrium & Prince's Building

LOCATION
Central, Hong Kong

TYPE
Commercial Building A&A

SCHEDULED TIME OF COMPLETION
April 2027

Shaping Tomorrow's CENTRAL: A BIM empowered modernization of LANDMARK



“Empowered by 8D BIM, we were able to develop the complex construction phasing which ensures construction and technical compliances, while enabling early communication with our office and retail tenants to minimize disruptions to their businesses.

Ultimately, this maximizes Hongkong Land's retail potential during the major alteration works to modernize LANDMARK.”

—NG Mei Ling
 Assistant General Manager,
 Projects, Hongkong Land Limited

- AUTODESK PRODUCTS USED
- Autodesk® AutoCAD®
 - Autodesk® BIM Collaborate Pro
 - Autodesk® Build
 - Autodesk Construction Cloud®
 - Autodesk® Data Exchanges
 - Autodesk® Docs
 - Autodesk® Dynamo
 - Autodesk® Navisworks®
 - Autodesk® Revit®
 - Autodesk® Validation Tool



Landmark Atrium
 Image Courtesy Hongkong Land Limited and Gammon Construction Limited

Reimagining Luxury in the Heart of Hong Kong

In the vibrant core of Central, Hong Kong, a transformative journey is underway—one that redefines the boundaries of luxury, innovation, and digital construction. The “Tomorrow's CENTRAL” initiative, led by Hongkong Land in collaboration with Gammon, marks a pivotal chapter in the evolution of LANDMARK, Hong Kong's most iconic luxury retail destination. This ambitious alteration and addition (A&A) project spans the LANDMARK Atrium and Prince's Building, encompassing over 78,000 square metres of prime commercial space. It is not merely a renovation; it is a reimagining of space, experience, and sustainability, powered by cutting-edge Building Information Modelling (BIM) technologies.

A Complex Phased Renovation in a Live Environment

Undertaking a large-scale transformation within

a fully operational luxury retail environment presents unique challenges. LANDMARK remains open throughout the multi-year renovation, welcoming over 50,000 patrons daily. The project is meticulously phased to ensure minimal disruption to tenants and visitors, with most construction activities scheduled during nighttime hours. This sensitive approach is essential in preserving the prestige and functionality of the space while enabling a seamless transition into its future form.

The complexity of the renovation is amplified by the need to integrate new multi-storey Maison destinations—ranging from two to eight storeys—within existing structures. These destinations will host the world's most prestigious luxury brands, including Cartier, CHANEL, Dior, Hermès, Louis Vuitton, Prada, Saint Laurent, Tiffany & Co., and Van Cleef & Arpels. The transformation will more than double the retail footprint of these anchor tenants, creating immersive environments that blend haute couture, fine dining, and experiential art.

BIM as the Backbone of Innovation

At the heart of this transformation lies BIM—a digital backbone that underpins precision, coordination, and innovation across every phase of the project. More than a 3D design tool, BIM acts as a centralized data environment, integrating architectural, structural, mechanical, electrical, and operational information into a single source of truth accessible to all stakeholders.

For “Tomorrow’s CENTRAL,” the reliance on BIM has been crucial in managing a complex phased renovation in a live luxury retail setting, where precision and planning are paramount. By visualizing construction sequences, optimizing material usage, and simulating operational outcomes before implementation, BIM has empowered the project team to make faster, better-informed decisions, minimize disruption to ongoing retail operations, and maintain the high standards expected of LANDMARK.

Scan-to-BIM and Concrete Scan Integration

Given the age and complexity of the buildings, accurate documentation of existing conditions was paramount. Traditional drawings were insufficient to capture the intricacies of the site. Gammon deployed laser scanning technologies to generate high-resolution point cloud models, which were then integrated into BIM platforms. This scan-to-BIM approach enabled the creation of verified existing models, ensuring millimeter-level accuracy for design and coordination.

Concrete scanning further enhanced safety and precision. By mapping embedded utilities and structural elements, the team avoided destructive testing and reduced the risk of hitting live wires or rebar during drilling. Over 1,130 openings were scanned, saving thousands of hours compared to conventional methods. These technologies not only improved efficiency but also contributed to safer and more sustainable construction practices.

Immersive Technologies: VR & AR for Design and Safety

Virtual Reality (VR) and Augmented Reality (AR) played a crucial role in stakeholder engagement and safety training. VR walkthroughs allowed clients to experience proposed designs in context, facilitating informed decisions and reducing downstream changes. AR overlays helped visualize façade modifications, bridging the gap between digital models and physical spaces.

For safety, custom VR modules simulated hazardous scenarios unique to the A&A project. Workers could train in immersive environments, gaining familiarity with site-specific risks before commencing physical work. This approach improved retention, reduced incidents, and fostered a culture of proactive risk management.

Sustainability and Digital Excellence

Hongkong Land’s commitment to sustainability is deeply embedded in the project. BIM enabled precise quantity take-offs and material tracking, supporting the use of 100% low-carbon concrete, green rebar, and sustainable timber. Over 80% of construction equipment is electric, significantly reducing carbon emissions.

The project aims to achieve top-tier certifications, including BEAM Plus Interiors, LEED Commercial Interiors, and WELL. BIM dashboards, powered by Speckle and Autodesk Data Exchange, visualize carbon metrics, empowering teams to make data-driven decisions that align with environmental goals.

Autodesk Construction Cloud (ACC) for Real-Time Monitoring

Managing a phased renovation across 15 distinct sections within a live retail environment required robust project monitoring. Autodesk Construction Cloud (ACC) was adopted to centralize data, track progress, and facilitate communication between day and night shifts.

ACC Build, with its linked Schedules, Sheets, and Issues, enabled supervisors to complete nightly quality inspections and safety verifications against predefined workflows. Photographic evidence uploaded in Build captured as-built conditions, enabling seamless handovers between shifts. Each morning, program managers accessed a consolidated progress report complete with time-stamped images, status flags, and forecasted completion dates each morning, enabling proactive adjustments to logistics, manpower, and procurement.

ACC also supported document control and versioning, ensuring that all teams worked from the latest information and maintained a single source of truth. This minimized rework and enhanced coordination among consultants, contractors, and client representatives.

BIM 9D - Lean Construction for Optimal Efficiency

In combination with the adoption of BIM 2D through 8D, BIM 9D, incorporating lean construction principles, was leveraged to plan and execute works with minimal disruption, reduced waste, and optimal use of raw materials, while keeping the project on schedule and within budget.

Due to limited material storage space at the construction site, the team utilized the integrated capabilities of 4D programme simulations and material delivery modelling to synchronize site activities with manufacturing outputs. Using Autodesk Construction Cloud (ACC) schedules, deliveries were precisely timed to arrive only when needed, enabling a just-in-time construction workflow from production to installation. This sequencing minimized idle time

avoided premature storage, and increased site efficiency in a live retail environment.

The lean approach was further reinforced by 5D BIM quantity take-offs, which provided accurate procurement requirements, preventing over-ordering of materials. These were paired with 6D BIM carbon emission calculations to assess the environmental impact of every procurement decision, avoiding unnecessary purchases of materials with high embodied carbon. By combining spatial planning, time scheduling, cost control, and sustainability metrics, the integrated 2D–9D BIM process delivered a tightly coordinated, resource-efficient construction programme that supported both operational excellence and environmental responsibility.

Leveraging AI-Driven OpenBIM Workflows for Innovative Modeling and Integration

The project embraced openBIM to improve interoperability and let teams use the best tool for each task in native formats. AI accelerated modelling by converting furniture reference images into detailed 3D meshes, exported to common 3D standards and converted back into Industry Foundation Classes (IFC) for coordination. This cut modelling bottlenecks while preserving data consistency across the BIM environment. By operating on native data before reintegration, the team broadened workflows and encouraged innovation. The result is greater collaboration, accuracy, and agility across the model’s lifecycle—showcasing how AI and openBIM together enable flexible, data-driven decision-making in architecture, engineering, and construction.

Conclusion: Shaping the Future of Central

“Tomorrow’s CENTRAL” is more than a construction project—it is a vision brought to life through innovation, collaboration, and digital transformation. By leveraging BIM and Autodesk technologies, Gammon and Hongkong Land have redefined what is possible in luxury retail renovation. The project balances heritage and modernity, elegance and efficiency, creating a destination that will captivate global audiences for years to come.

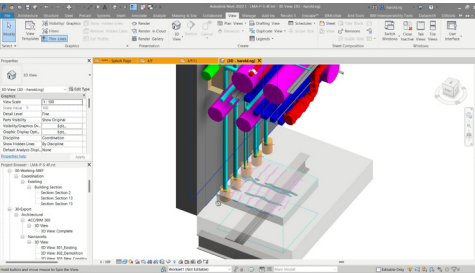
As Hong Kong continues to evolve as a global luxury hub, LANDMARK stands as a beacon of excellence, powered by the future-forward spirit of BIM. This project not only enhances the city’s skyline but also elevates its reputation as a leader in sustainable, intelligent, and experiential design.



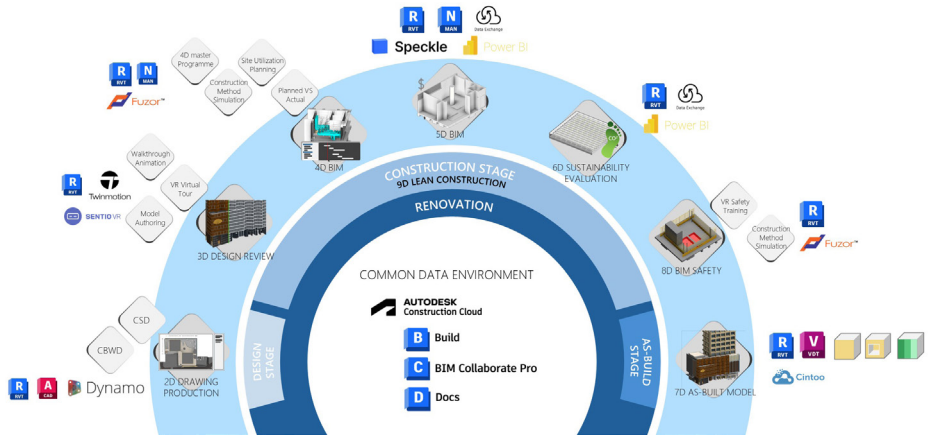
Prince's Building
Image Courtesy Hongkong Land Limited and Gammon Construction Limited



Concrete Scan
Image Courtesy Hongkong Land Limited and Gammon Construction Limited



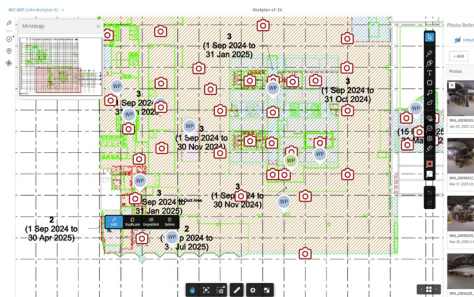
Concrete Scan record in Revit
Image Courtesy Hongkong Land Limited and Gammon Construction Limited



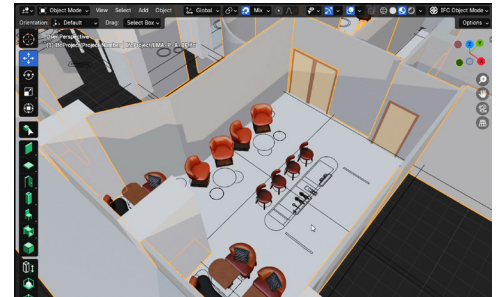
BIM Uses
Image Courtesy Hongkong Land Limited and Gammon Construction Limited



Facade Augmented Reality (AR)
Image Courtesy Hongkong Land Limited and Gammon Construction Limited



ACC Build Sheets
Image Courtesy Hongkong Land Limited and Gammon Construction Limited



AI accelerated modelling
Image Courtesy Hongkong Land Limited and Gammon Construction Limited