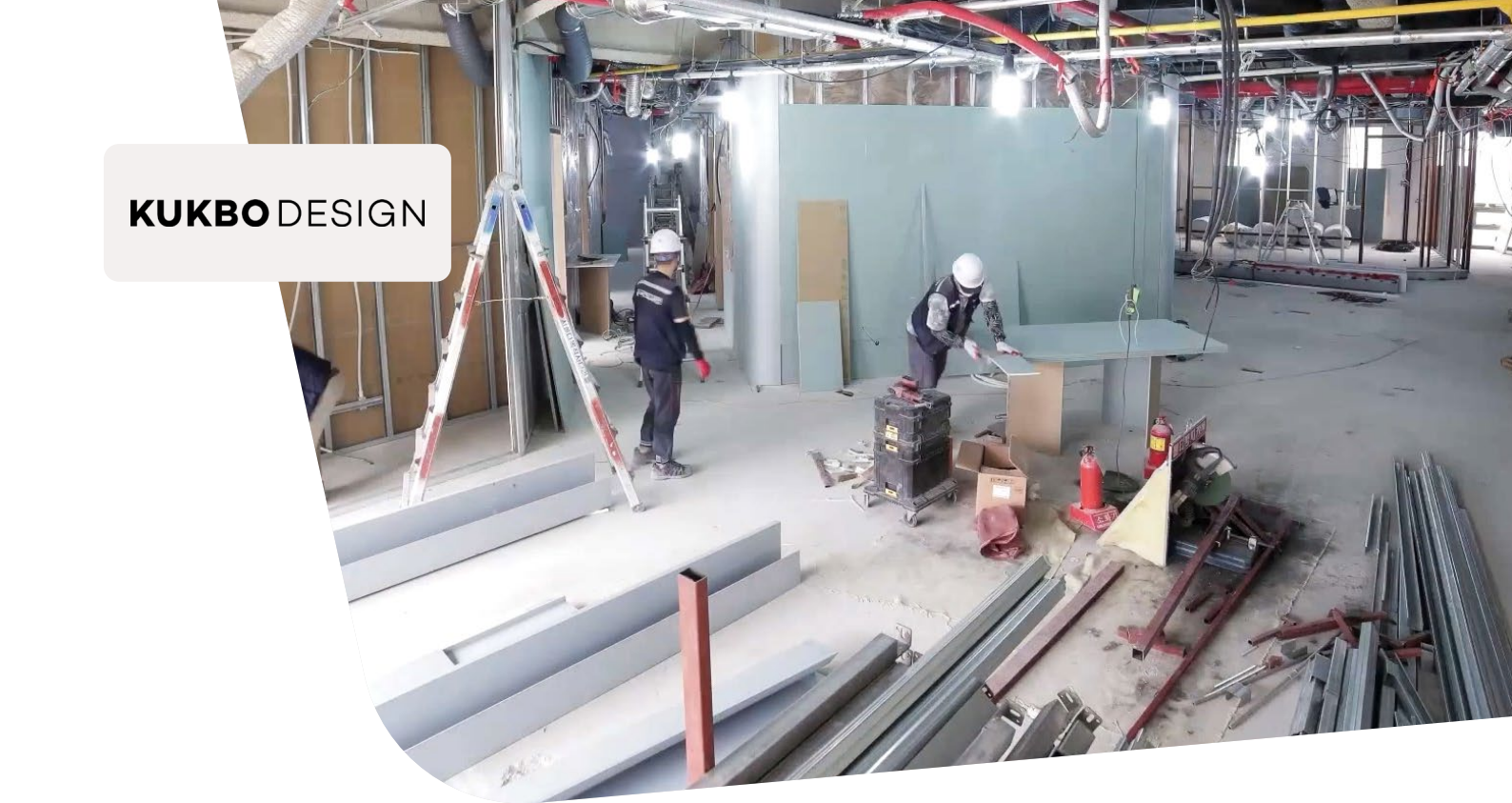




KUKBO DESIGN

CASE STUDY

Leading Digital Transformation in Tenant Improvement

DETAILS

LOCATION:

Seoul, South Korea

FIRM TYPE:

Tenant Improvement Contractor

PRIMARY INDUSTRY:

Commercial, Hospitality, Retail

Kukbo Design Co., Ltd. is a leading interior construction company located in Seoul, South Korea with over 400 specialised professional employees in design and engineering. Established in 1983, Kukbo Design stands as one of Korea's leading interior design and construction firms and has maintained its position as the #1 interior construction capability evaluation for 13 consecutive years. Their commitment to enhancing spatial experiences and quality has earned them an AAA credit rating since 2010, demonstrating their financial stability and operational excellence.

Managing multiple interior design projects within tight construction windows and maintaining a high standard of quality interior construction presented significant challenges. Site documentation and continuous monitoring added another layer of difficulty without the proper documentation and progress tracking management systems for Kukbo's geographically dispersed sites.

66% reduction in site visits required per project

50% reduction in documentation time

60% improvement in payment verification acceptance rates

Challenge

- **Spatial Understanding Gap in Remote Client Communication**

Kukbo's client base includes international organisations and hence, traditional photography often fails to fully capture the nuances of space, lighting or materials. Communication challenges regarding jobsite spatial information become even more pronounced with international clients when relying solely on photos and PDF reports. This can lead to communication challenges in particular jobsite spatial information.

- **Spatial Understanding Gap in Remote Client Communication**

As Kukbo project managers are handling projects across multiple locations, with multiple stakeholders, remote site management is a major hurdle. Frequent site visits consume excessive time and are costly, and at times teams often struggle to communicate accurate, real-time site conditions, impacting decision-making. Without the correct spatial context on site, rework and project onsite conflict can potentially become an issue.

- **Payment Verification Challenges**

Proving construction progress is crucial for timely payments, yet traditional documentation and photography methods fall short. Photos without geo-location data lack credibility, leading to payment delays and disputes. The verification process for multiple work phases becomes

cumbersome without accurate, location-based evidence. And with tight deadlines, smooth ongoing payments to multiple parties provides harmony and onsite productivity.

“Before Cupix, we couldn't identify which floor or location site photos were from, making them difficult to use as documentation. Collecting and organizing these photos was very problematic. We chose Cupix because it lets us automatically identify locations, verify dates immediately, and improves our efficiency in managing 3D site documentation.”

Yoon-ho Kwon

Head of Digital Transformation at Kukbo Design



Solution: CupixWorks Implementation

Kukbo Design's adoption of CupixWorks marked a fundamental shift in their project documentation and management approach. Starting in February 2021, this innovative journey transformed every aspect of construction management from site documentation to collaboration methods. The transition from manual documentation to an automated digital system significantly improved operational efficiency and data accuracy.

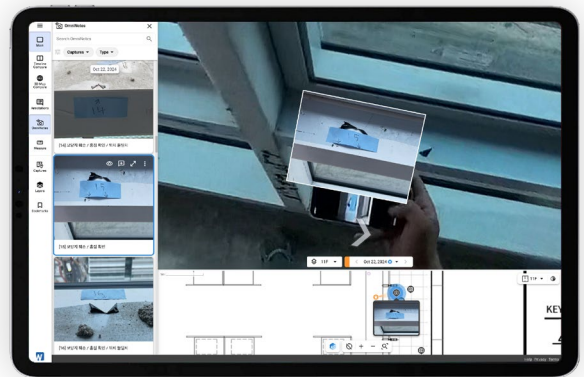


• 4D Digital Site Documentation

Kukbo transformed their project documentation from static photography to dynamic 4D records through periodic 360° video captures. By converting all site changes into 3D spatial models with time-stamped data, they created a comprehensive digital archive of project evolution.

○ Key Effects:

- Regular 360° video captures create a comprehensive timeline of site changes.
- Site managers can instantly review historical site conditions with a simple click.
- Cloud platform enables remote access to periodic site records for all stakeholders.
- Systematically replaces manual site documentation with digital workflows.

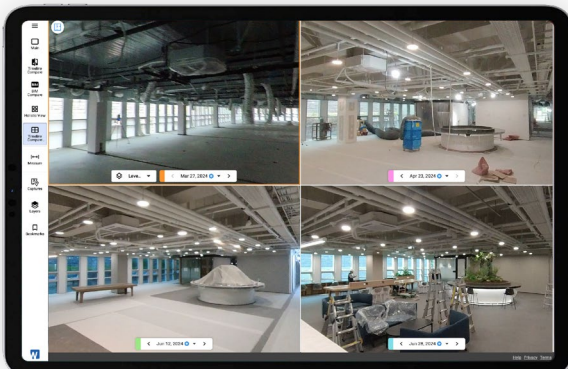


• Enhanced Site Records with OmniNote

OmniNote enables capturing high-resolution mobile photos and voice memos during 360° video walks. By combining mobile photography with 360° video capture, the system creates more detailed and reliable site records. This is particularly effective for documenting confined spaces, minor defects, text details, and joint conditions that might be missed in standard 360° captures.

○ Key Effects:

- Pre-construction site handover documentation.
- Post-completion punch list items.
- Detailed recording of joint conditions between walls, ceilings and floors.

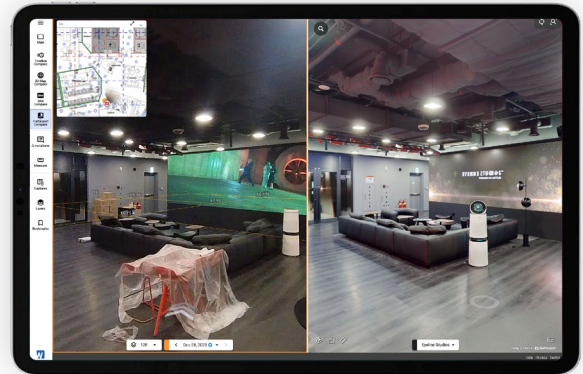


- **Streamlined Remote Collaboration with BookMark**

The Bookmark feature stores any viewer configurations easily for personal reference or team sharing. This includes camera angles, BIM layouts, and measurement configurations, ensuring all team members see exactly what needs to be discussed. This has been particularly valuable for international client communication since the COVID-19 pandemic.

- **Key Effects:**

- Stores and shares specific locations, camera angles, screen layouts, and BIM configurations.
- Reduces meeting time spent searching for previous discussion points.
- Streamlines decision-making by removing irrelevant visual elements.
- Eliminates confusion by ensuring all stakeholders view identical perspectives.

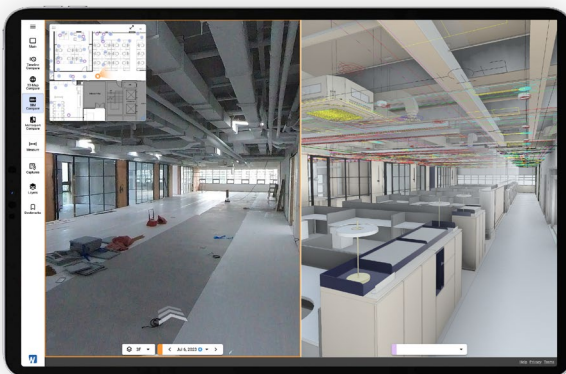


- **All-in-One Spatial Hub**

Thanks to Cupix's capability to unify all reality capture data, Kukbo Design now manages various forms of spatial data in a single platform, from BIM models and 360° captures to laser scans and Matterport data. This consolidation was particularly crucial for TI (Tenant Improvement) projects where quality control requires various types of 3D data verification.

- **Key Effects:**

- Multiple BIM files for accurate project understanding and design intent verification. screen layouts, and BIM configurations.
- Integration with high-precision scans for final space-to-furniture fitout planning presentation for overseas clients.
- BIM deviation analysis for monitoring construction accuracy against design.



Measurable Impact: By the Numbers

- **Enhanced Workflow Efficiency**

- 50-66% reduction in site visits per project, significantly reducing workload
- Over 50% reduction in documentation time through automation
- 2-2.5x faster report approval process with accurate information
- 50% decrease in documentation errors through automated report generation

- **Strengthened Collaboration**

- Centralized data access for all stakeholders
- Average 60% improvement in payment verification acceptance rates based on comprehensive 4D progress records
- Reduced disputes due to complete documentation
- Enhanced project transparency

- **Cost Reduction and Quality Improvement**

- Early issue detection and resolution
- Systematic documentation improving construction quality
- Higher client satisfaction through improved delivery quality
- Reduced rework through better coordination



“Cupix’s location and date-based site documentation tremendously reduced the needs for site visits for clients, partners, and even our office staff. We spend less time organizing photos and more time being productive. It’s especially valuable for payment verification. In many cases, we used automatically generated reports as evidence for work verification after each construction milestone was completed. Being able to intuitively compare BIM models with actual site conditions is a huge benefit as well.”

Byung-soo Lee

Senior VDC Manager at Kukbo Design

Conclusion

By implementing CupixWorks, Kukbo Design has significantly improved project management efficiency, reduced travel costs, and enhanced collaboration across teams with a comprehensive spatial twin data management system and seamless integration. With a proven track record of 98 completed projects spanning nearly 350,000 m², the company continues to set new benchmarks in interior construction technology management.

“Our initial Cupix adoption coincided with COVID-19, so reducing site visits was a major advantage. Even after COVID, Requests to use Cupix platform kept coming from both clients and site teams. New features like BookMark and OmniNote expanded our use cases across more projects, adding more tangible values to using the Cupix platform.”

Yoon-ho Kwon

Head of Digital Transformation at Kukbo Design

