



AIA
Continuing
Education
Provider

Beyond a Pretty Scan: Collaborate & Document with Matterport



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Agenda

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Matterport in 60 seconds

02

**Discover solutions for Architecture,
Engineering & Construction**

Trends

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**Transform the way you manage
projects**

Capturing a space
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Use cases

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AEC Solutions

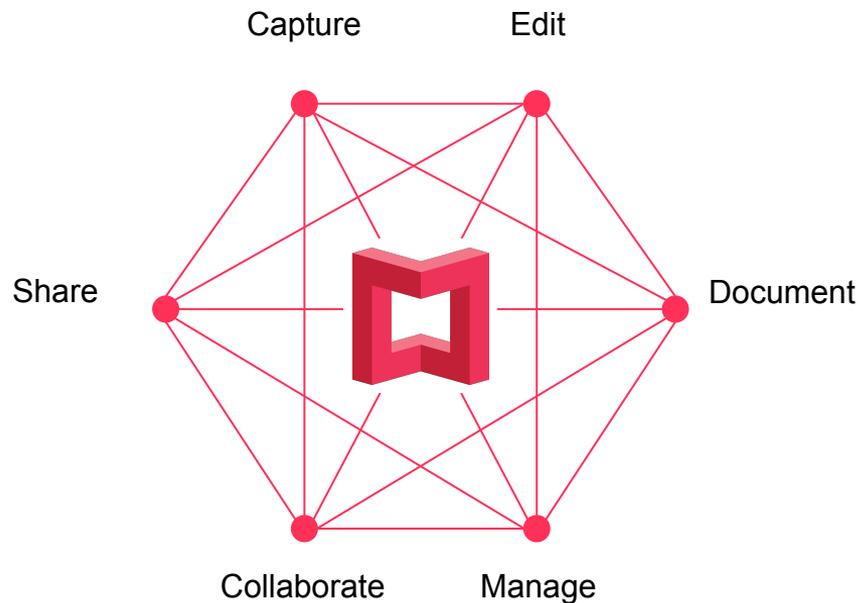


Matterport

Rediscover how you market & manage your properties with Matterport's **digital twin platform.**

What's a Matterport digital twin?

A visually immersive, interactive, accurate 3D replica of the buildings & spaces where you do business.





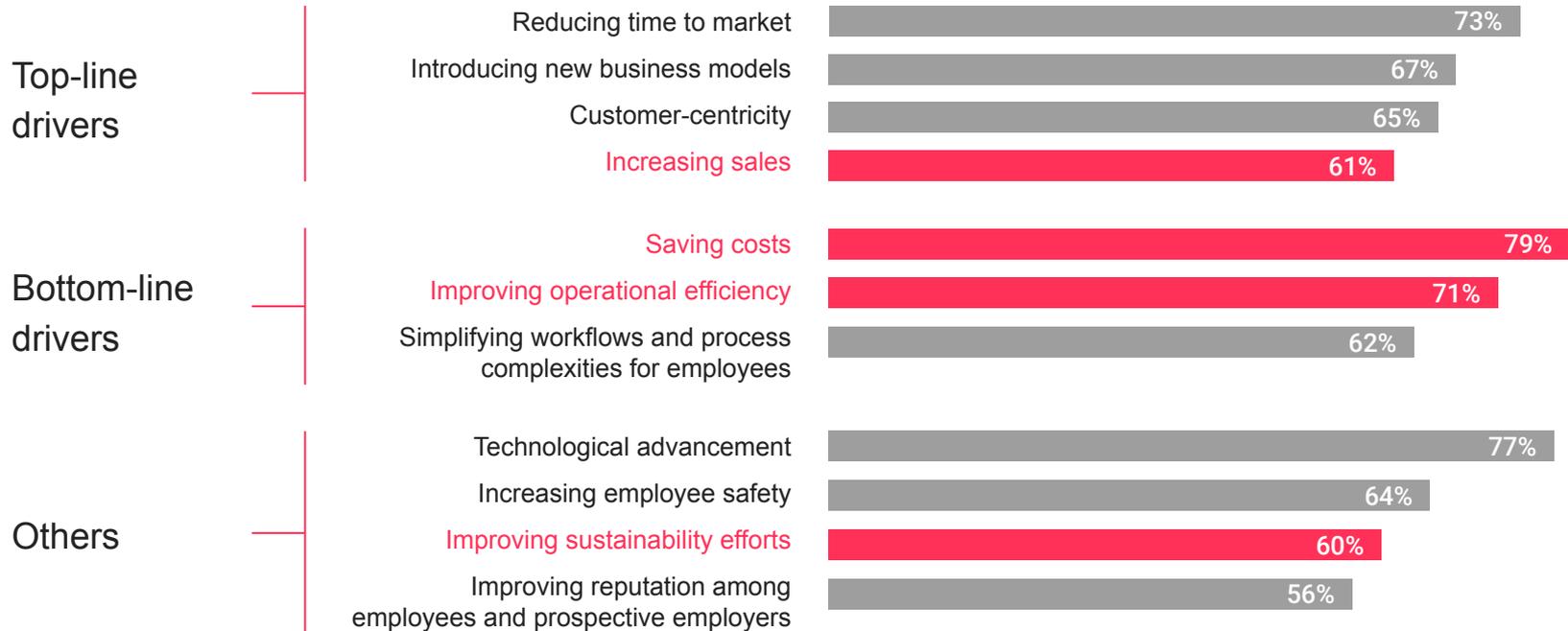
55%

of global software technology
decision-makers are already
adopting digital twins

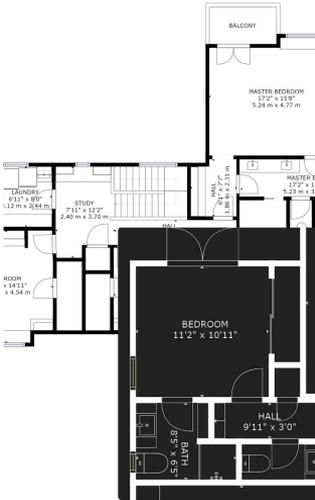
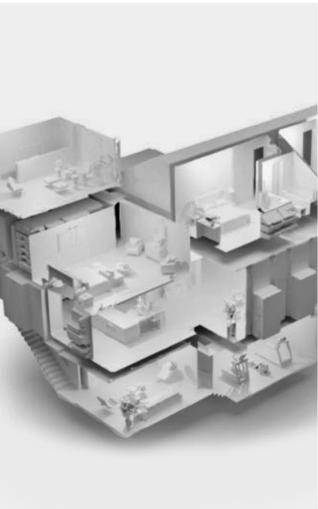
(Source: Forrester Report, 04/22)

Digital twins can drive high performance & sustainability

Extent to which organizations agree that the below are the key drivers of their digital twin investments:



Matterport digital twins can be used by multiple teams in your org



Design

Build

Marketing
& Sales

Insurance

Operations

Retrofit
& Repair

Digital twins throughout a project's lifecycle

Operate

Increase ROI by reducing costs of facility management, ongoing maintenance, and collaboration.

Build

Verify work in progress and eliminate rework due to error.

Cut cost and decrease As-Built production time.

Effectively reduced the number of participants across all trades required on-site throughout the construction process.



Design

Save time capturing existing site conditions.

Gain efficiencies in building information modeling (BIM), and documenting existing as-built states.

Documentation

Showcase work, accurately demonstrate work quality and critical milestones such as punch list or snagging and handover.

**Transform the way
you manage projects**



Industry needs

Challenges

95% of all data captured in construction and engineering industry goes unused

Source: FMI

52% of rework is caused by poor project data and miscommunication

Source: Autodesk

24% of total project cost (direct or indirect) is rework

Source: Navigant Construction Forum

Marketing & Sales

14% Increase in conversion to sale

300% Higher engagement on websites

Bring More ROI to Projects

53% Cost savings on travel & site visits

30% Less time to complete projects

24% Improved sustainability

Why Matterport digital twins?



A significant opportunity exists for project teams to capitalize on that information by delivering a holistic and usable view of design and construction data as a digital twin of the built asset. This in turn will enable owner/operators to have a single source of truth for operations that reduces the total cost of ownership, achieves greater operational efficiency, and realizes the value of BIM long after handover”

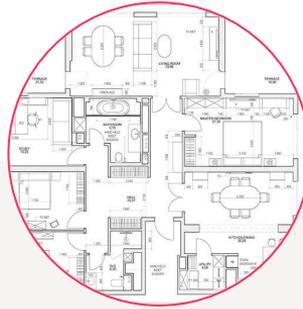
Robert Bray

Senior Director, Autodesk

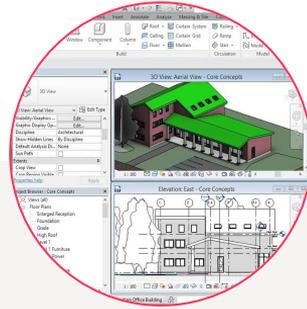
A quick history



Manual Drafting



CAD
(Computer Aided Design)



BIM
(Building Information Modeling)

Challenges:

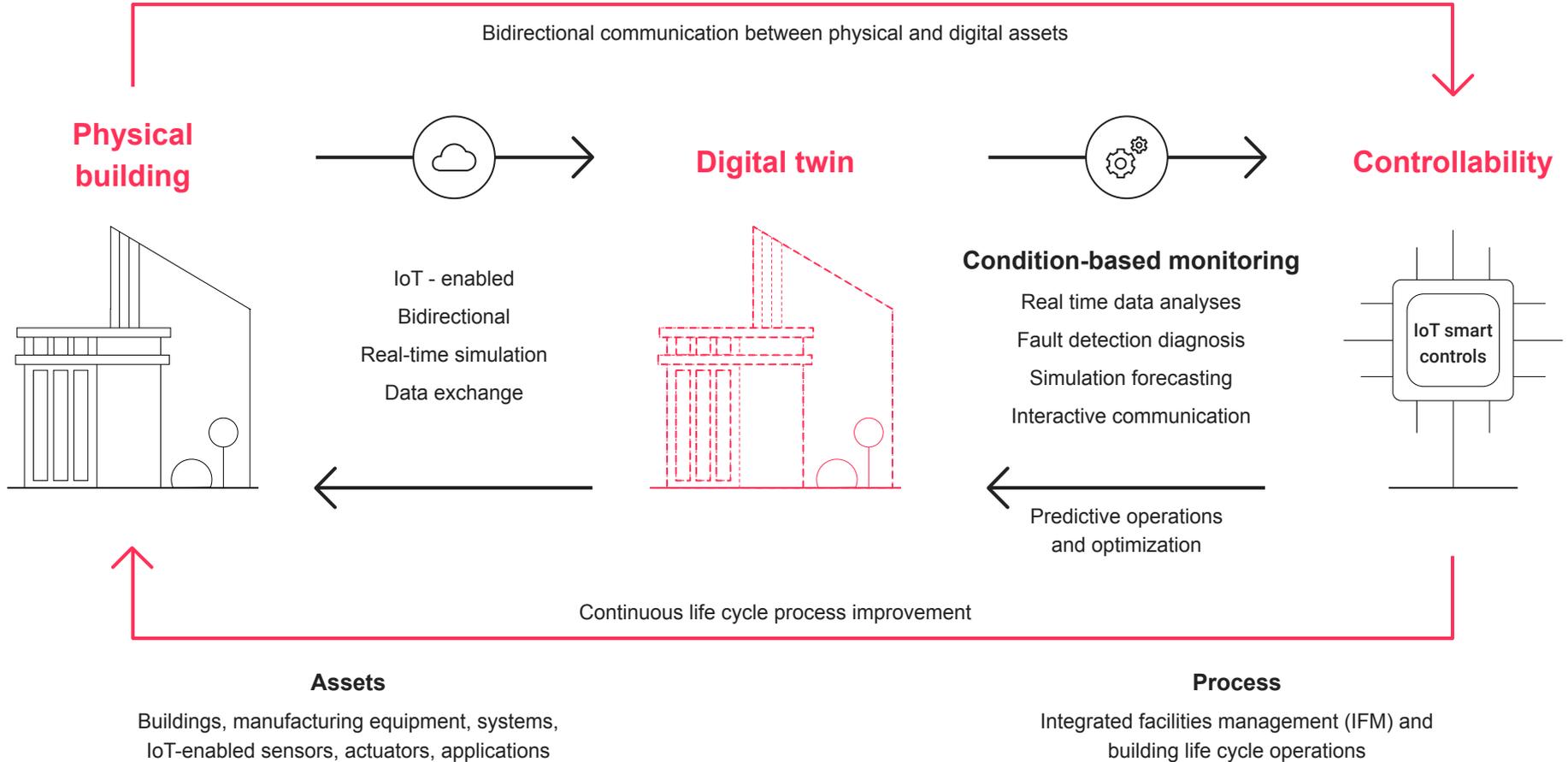
- Typically most labor intensive
- Process is reliant on skill of drafter
- Tape measurements, hand sketches, translation on to the drawing board, using drawing pens, rulers

Solution:

- CAD uses computers for design and technical documentation, which eliminates manual drafting processes
- Draft construction docs, explore design ideas, visualize concepts and simulate how a design would perform in the real world.

Future:

- BIM offers more comprehensive tools that are better suited to the construction industry and allow more complex design.
- Collaborate together throughout the project using the same database and building models (federated).



A man in a white jacket and red shirt is using a Matterport mobile scanner. The scanner is a black device with a smartphone attached to it, mounted on a black tripod. The man is looking at the scanner. The background is a room with white shelves, a clock, and various items.

Capturing a digital twin

Choose the right tool for the job

There are many ways to capture, but the prevailing standards for creating digital twins of buildings are **3D cameras & LiDAR**. The sensor of choice is largely determined by desired workflow & accuracy requirements.

The **most critical consideration** for capture is the software or platform for viewing and managing the digital twin.



Smartphones
& Tablets

iOS & Android



360, SLR & Video
Cameras

Insta360



3D Cameras

Pro2



Other

Drones, IoT Sensors, SLAM
& Mobile Mapping Systems



LiDAR Sensors

Pro3





Introducing **PRO3**

Digital twin capture reimagined, re-engineered,
and ready for anything.

High performance

Highly accurate LiDAR depth information

Speed Up Capture

Scan up to 4X faster at < 20s per scan

Up to 100M range for data collection & documentation

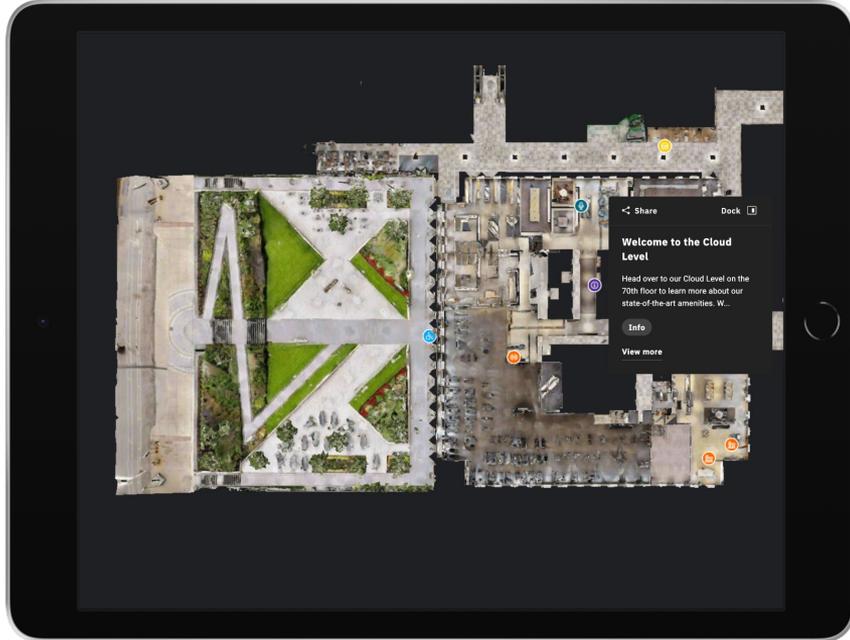
Complete Scan

Capture high fidelity digital twins indoor & outdoor in full sun

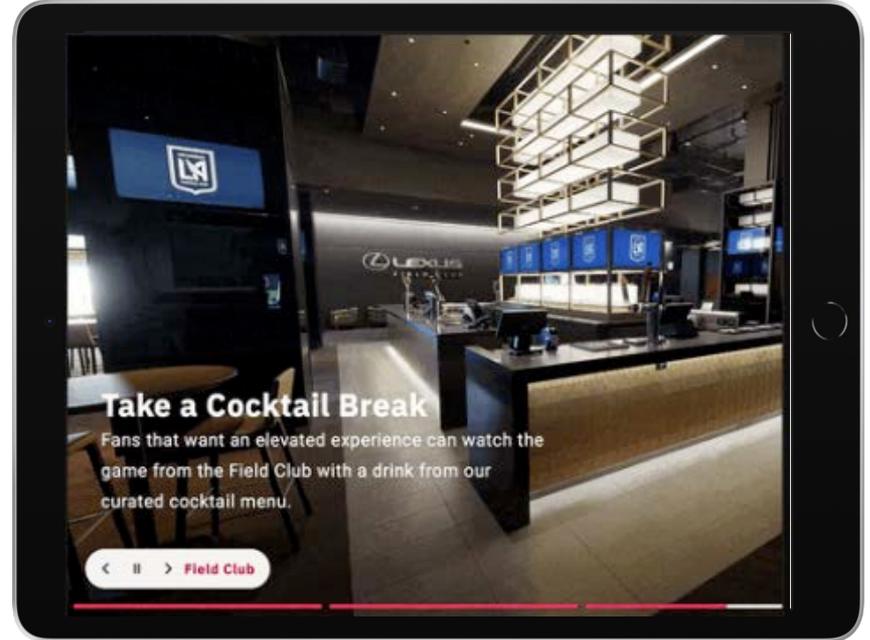
High Accuracy

±20mm @10m range

Accurate & immersive digital twins of any space



Indoor, outdoor - anytime



Storytelling with Tours

Enhanced digital twin platform capabilities



Higher visual fidelity and more accurate models

Higher fidelity mesh for all models, even the big ones.



Enhanced Showcase and Workshop experiences

Better-looking dollhouse & floor plan views with increased accuracy of in-model measurements, notes, tags



Fast loading time in Showcase

Customers and colleagues spend less time waiting for models to load and more time collaborating within the space.

Optimize the way you manage your entire project portfolio



Design and Project Management



Keep projects on schedule, save time & money at key stages

Save 100s of hours in design review
80% cost savings on documentation

Avoid costly delays by reducing mistakes with contractors on the ground

Work faster with AutoDesk and ProCore integrations



Collaboration and Documentation



Eliminate costly site visits and improve field-to-office collaboration

82% agree a 3D walkthrough is better to communicate job site status

Seamlessly communicate milestones, flag issues, and field-to-office collaboration

Improve handover with powerful data and insights at your fingertip



Facilities Management and Operations



24/7 remote access and inspection

Reduce site visits and cost by 50%

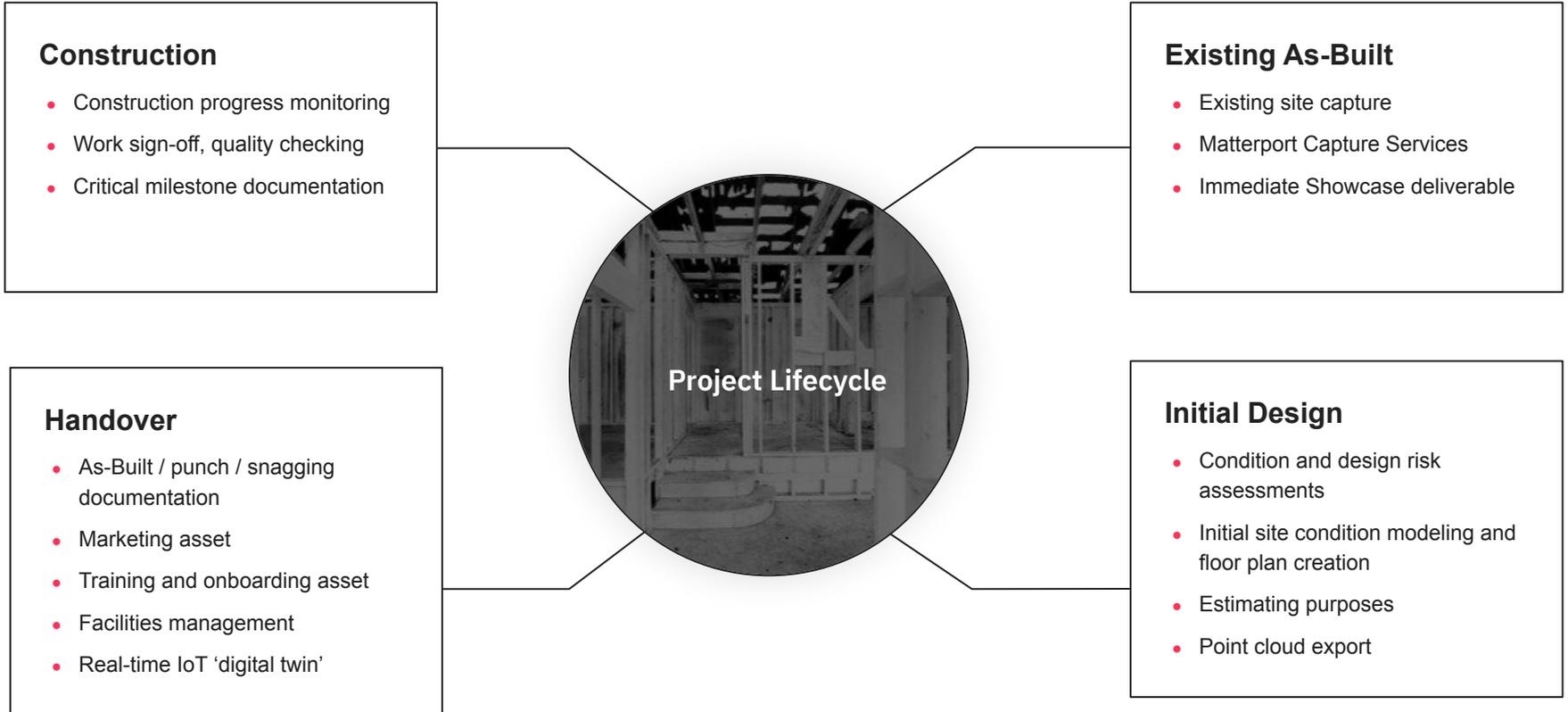
Take measurements, manage inventory, and prep for installation remotely

Integrate Matterport digital twins with existing systems (IoT)

Features & Integrations



Bring teams together - from design to handover



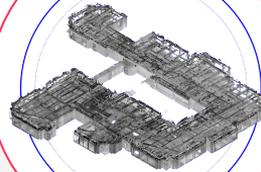
From a digital twin to optimization, productivity, and efficiency

Export your digital twin to multiple common files types with ease, and save countless hours of time and money.



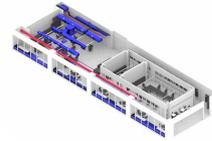
Capture a space

Unlock outdoor, scan larger spaces up to 108K sqft/hr on a flat ground



Accurate model generating

Exportable and integrate with BIM files, E57 Point Clouds, CAD, Schematic Floor Plans, and more



Powerful building documents

Collaborate online, accelerate design and build schedule

Advanced digital twin features

Customize immersive 3D experiences of your projects with Matterport to share information about the physical locations the way you want.



Photos - Convert your 3D space into 2k or 4k photography



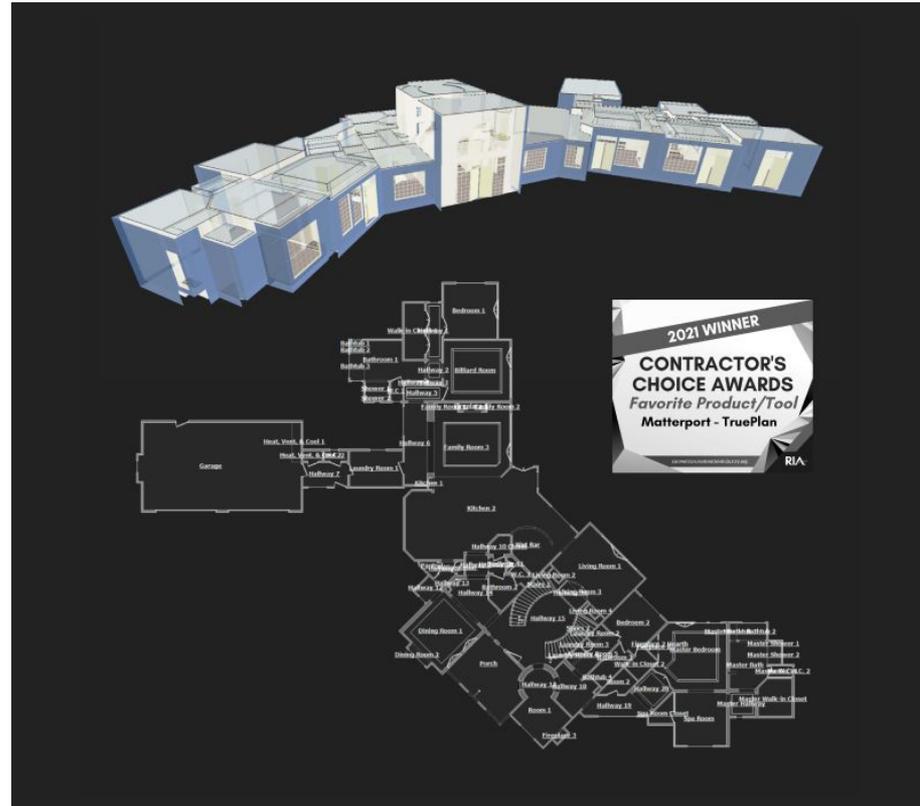
Measurements - Take accurate measurements of anything featured in a digital twin



Export to Floor Plans - Quickly generate and download floor plans



TruePlan - Generate SKX files in floor plan and 3D views to use in Xactimate





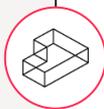
Notes - Collaborate on Matterport digital twins in real time



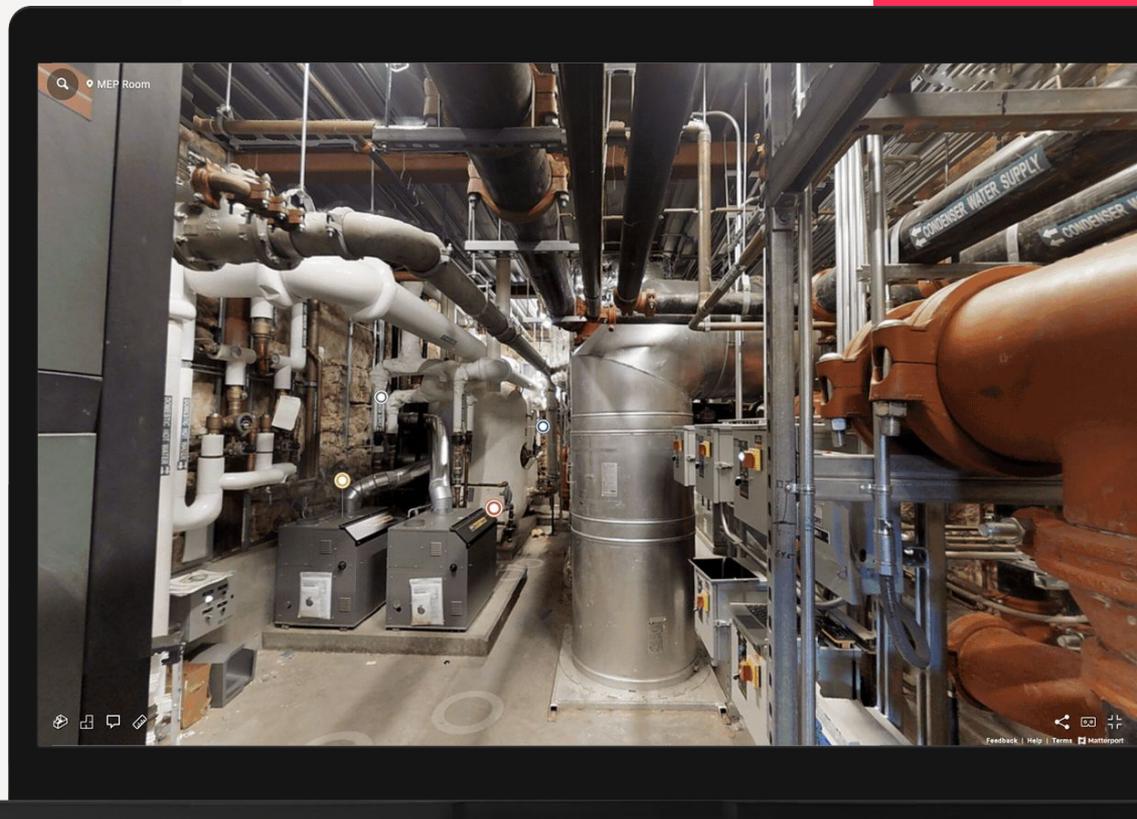
Tags - Embed pop-up notes, links, videos, and links to warranty information and maintenance manuals.



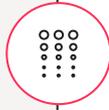
Space search - Locate an element in a model with a keyword search



MatterPak - Download, edit, and import high-resolution digital assets from Matterport Cloud.



3D scanning that fits your workflow



E57 - Easily import an accurate high density point cloud into any design software



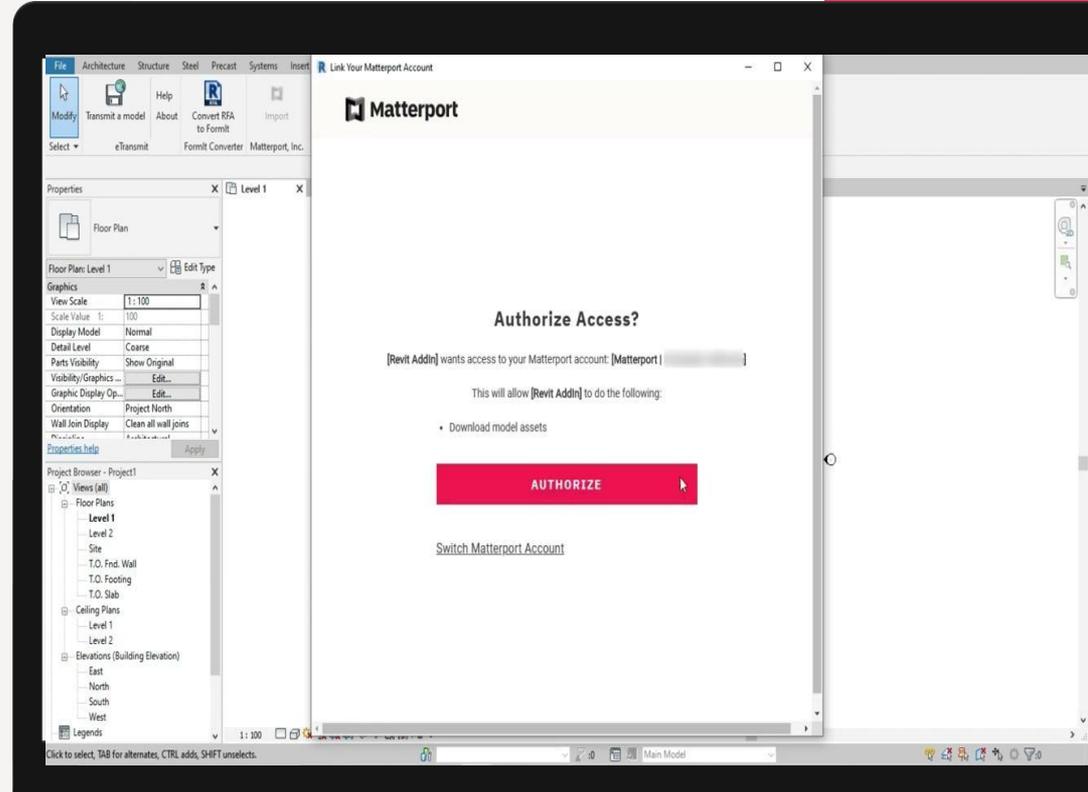
BIM File - Transform your space into a 3D Autodesk Revit model and 2D CAD files



Autodesk Revit Plug-in - Import Matterport point cloud files and Scan-to-BIM assets to use within Revit



Autodesk Construction Cloud - integration coming soon!



 bit.ly/3LKQYU9

Coming soon! Preview our
upcoming Autodesk
Construction Cloud Integration

Use Cases





Sustainability

55%

Improvement in sustainability¹
for digital twin leaders



We're reducing our own travel time by 50% & client travel time by 100%— by allowing clients to experience a space without setting foot inside it. Matterport is a game-changer for our company”

Swinerton

Actual Matterport Client



7 team members



400 hours of travel time saved

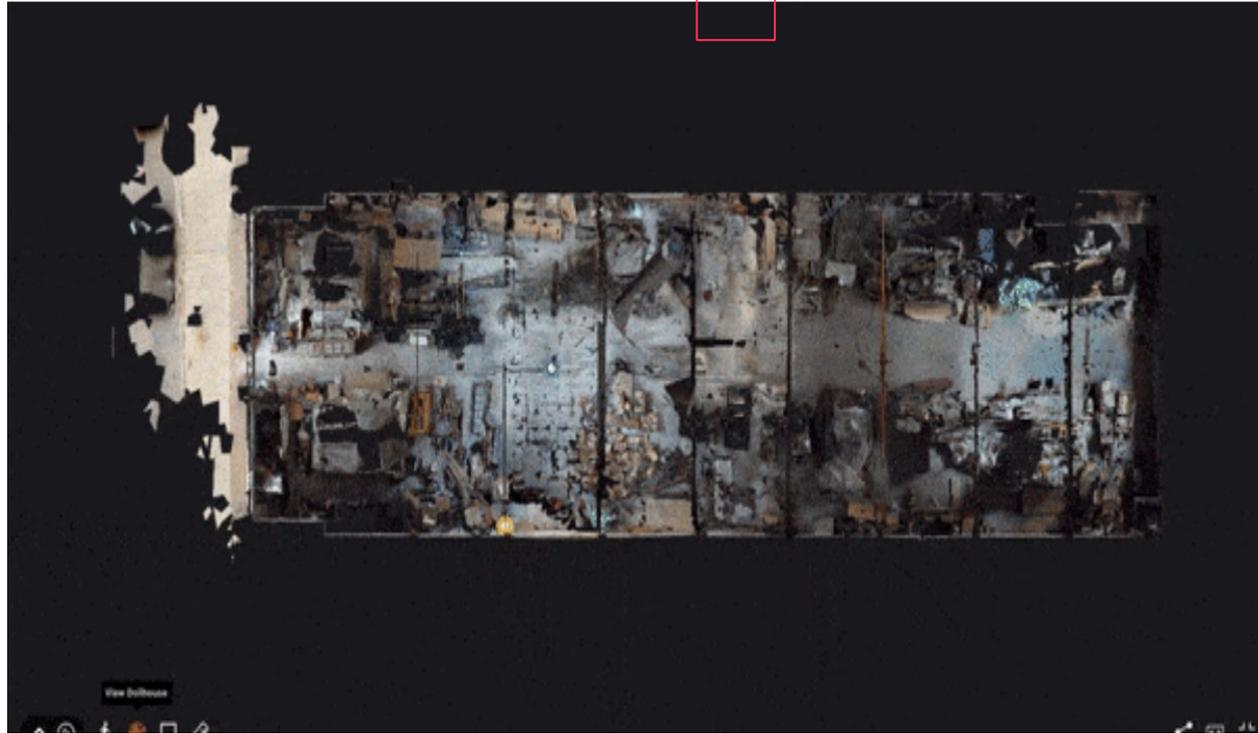


13K CO₂ kg saved

¹Source: CapGemini Research Institute, Digital Twins Survey.
September - October 2021. N = 1000 Organizations

Design phase

- Existing building surveys
- Condition surveys
- Design and risk assessments
- Concept and detailed design
- Construction planning
- Scan-to-BIM/CAD file



Proven to decrease design costs & turnaround time

 TAKENAKA



- **Reduced scanning costs** by thousand of dollars per project
- **Decreased project costs and turnaround time** by collaborating and working remotely

Perkins&Will



- **Reduced** site visits by two-thirds
- **Decreased project costs and turnaround time** by collaborating and working remotely

“

We were eager to introduce [Matterport] technology into our workflow. With the dimensionally accurate digital twins, we can analyze MEP information throughout the building lifecycle”

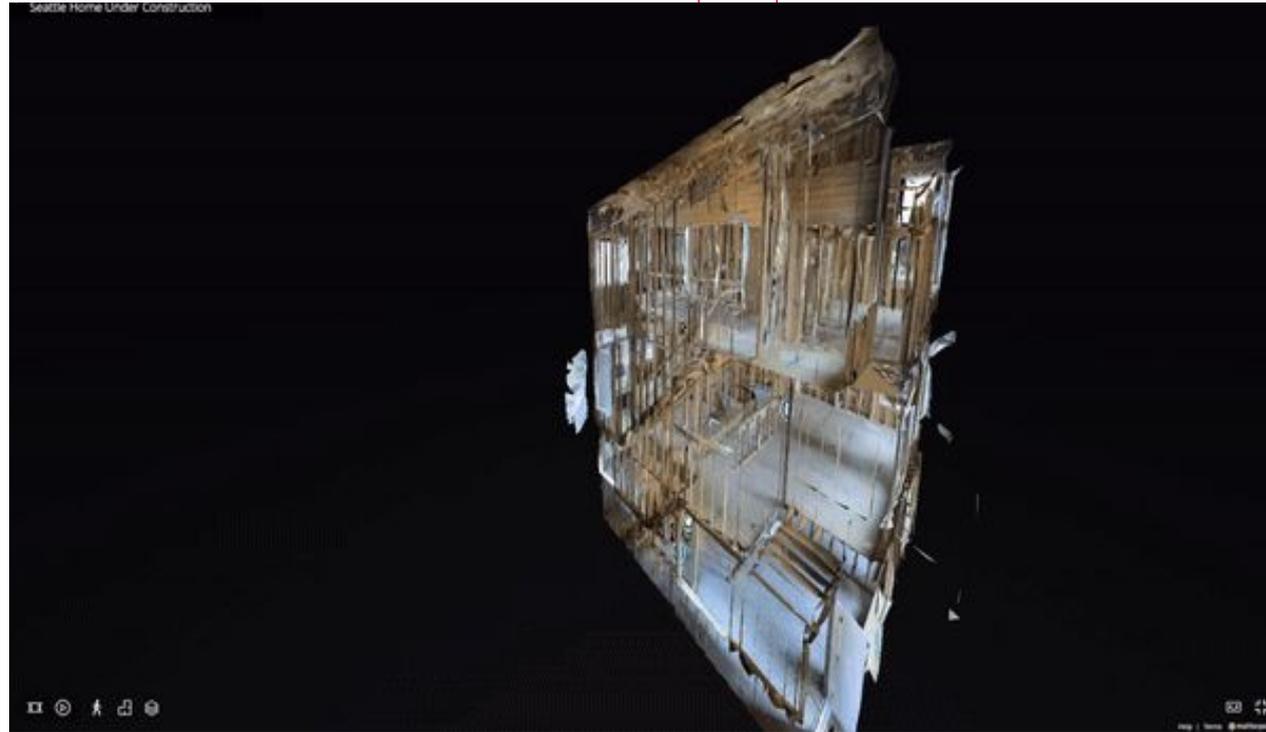
“

We never had to go back and remeasure anything because Matterport captured it correctly the first time. It made us feel confident that we were doing a good job and providing our client with the right design approach”

Construction phase



- Monitor site construction progress
- QA / QC
- Issue coordination
- Concept and detailed design
- Work package sign off
- Milestone documentation



Construction efficiency that's proven to cut costs



- Verify work in progress and **eliminate reworks due to error**
- **Cut costs** and decrease As-Built production time



- **Time savings** of 1,000 hours by eliminating travel and site visits
- **Improved Productivity** in reviewing 21 sites remotely in 4 hours
- **25% to 30% in time and money savings** by accelerating design-build phases

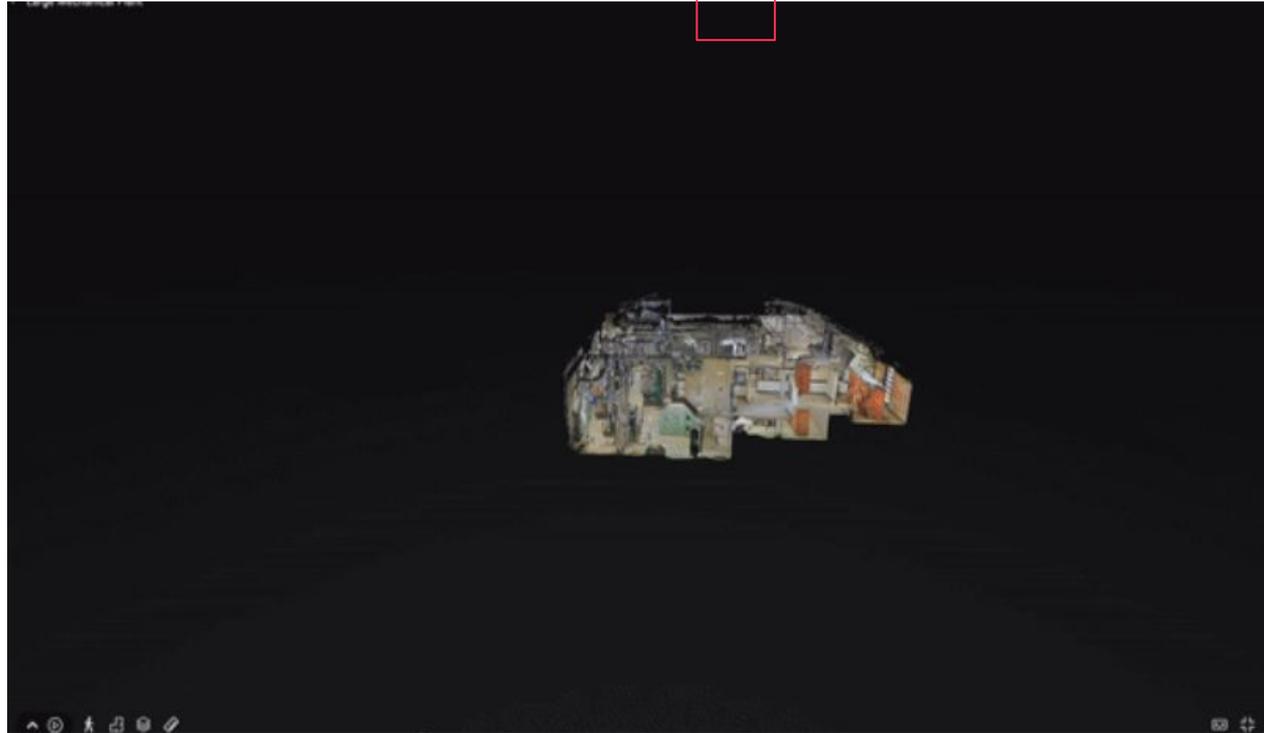


...with Matterport, our project manages capture and share the job site every week, helping stakeholders 'remote-in' to solve problem, track resolutions, and save time and money”

Operational phase



- Monitor site construction progress
- QA / QC
- Issue coordination
- Concept and detailed design
- Work package sign off
- Milestone documentation



Kraus-Anderson



Founded in 1897, they provide award-winning consulting and construction services coast to coast.

Client Portal

A one-stop-shop for client communication, documentation and interaction provided during and after construction.



Enhanced capabilities with Matterport



Pre-bid - Walk through / design phase

Replaces thousands of site photos with a single set of immersive 3D spaces.



Communication

Measure, annotate and communicate project details and progress without having to tour the site.



Rough-ins

Capture measurable data creating a time capsule of project documentation



Facility assessment

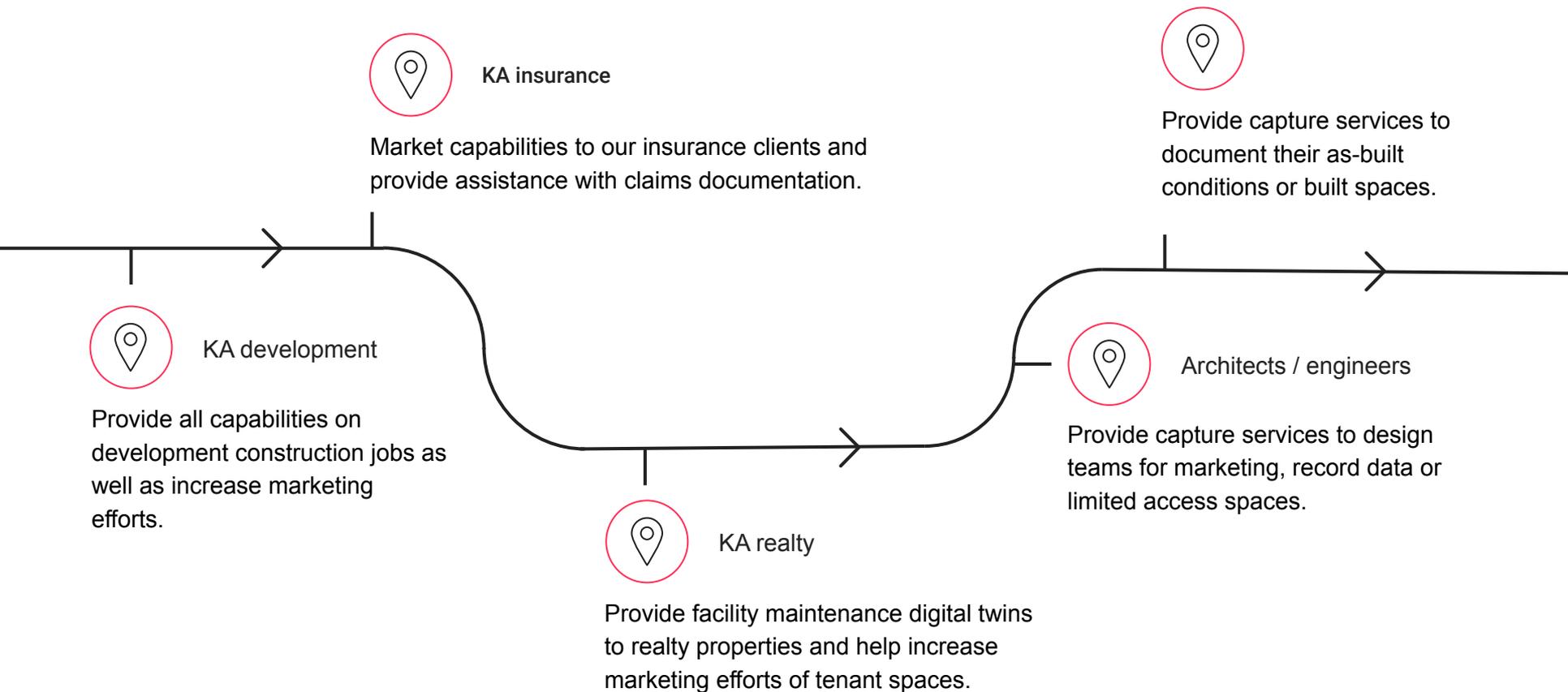
Provide immersive access to buildings with measurements and exportable data.



Facility management / closeout

Turn over documentation to building owners for long-term facility management.

Future strategy



Adding value through custom development

Harness the power of Matterport SDK and APIs to create innovative and differentiated 3D experiences



Floorplan /
way-finding



Searching /
filtering tags



Facility
sensors



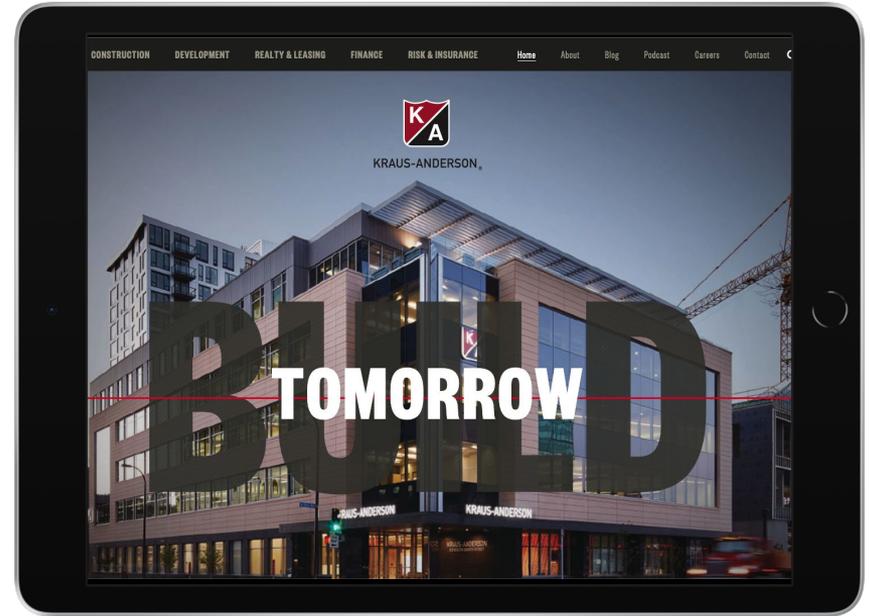
Custom
icons



Custom
branding



Comparison



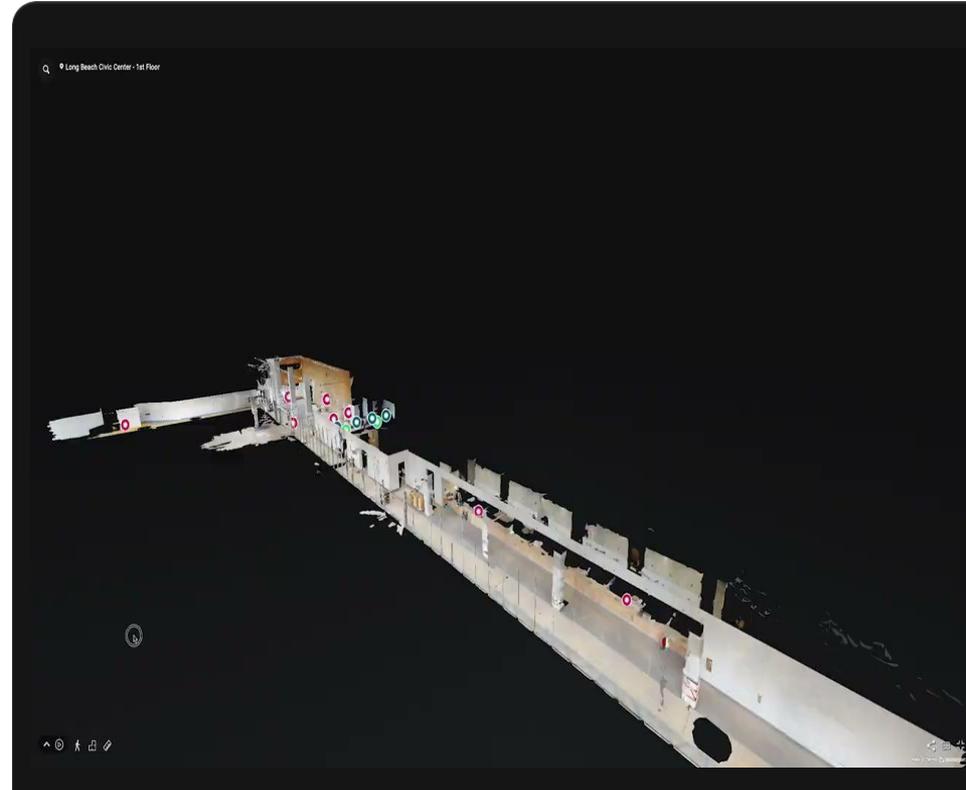
Bring more value to clients

Marketing your portfolio

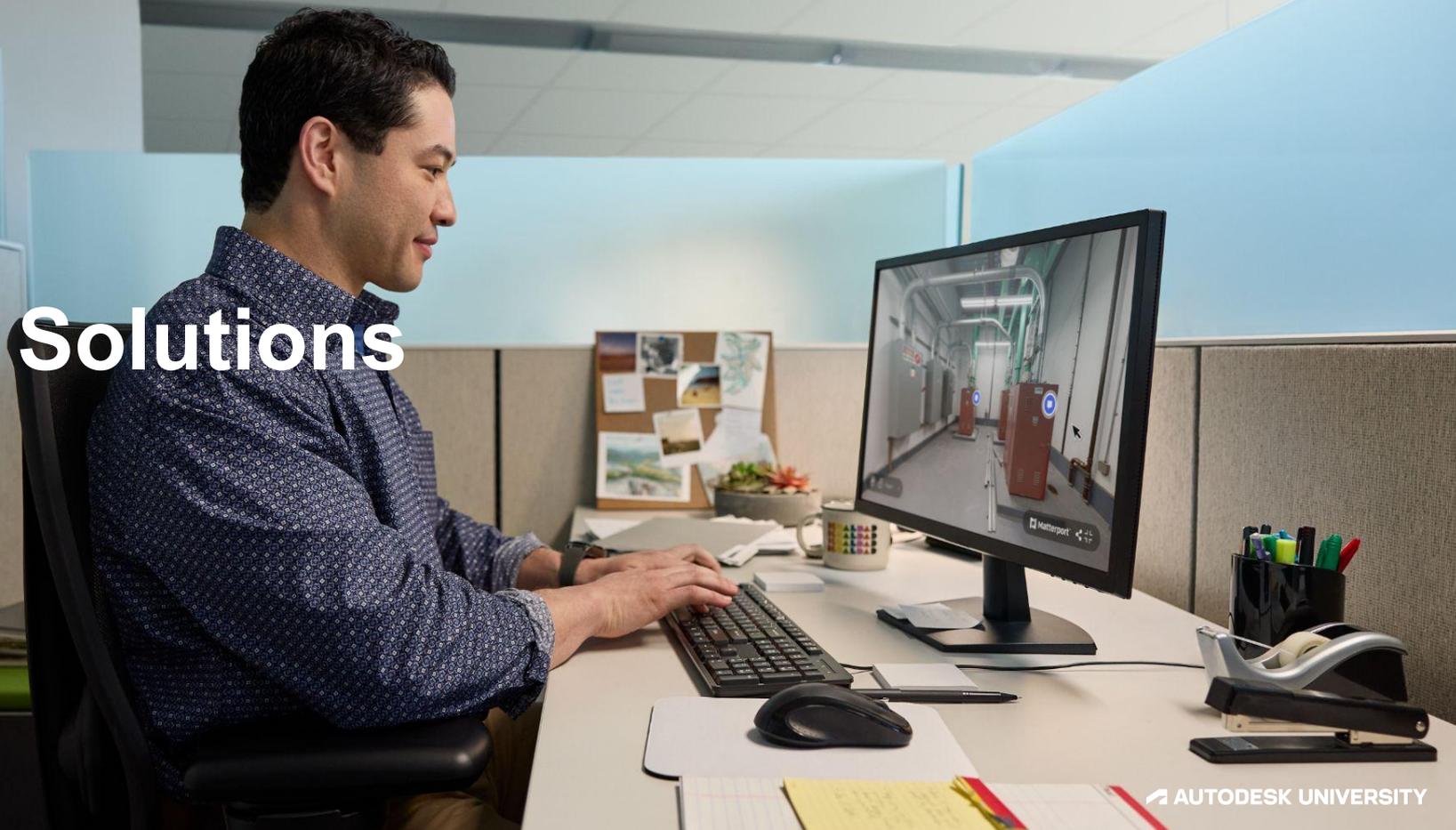
- Showcase portfolio of work and share service offerings with clients
- Accurately demonstrate quality of work through a digital twin and project milestone documentation

For clients

- Increase productivity and cut costs by reducing site visits
- Faster decision making and increase efficiency and revenue generation
- Improve communication and training capability to reduce downtime and improve ROI



AEC Solutions



Digital twin solutions for AEC

Key takeaways

Reality capture creates a static but detailed snapshot in time of current project status

Highly dense point clouds may be exported to clean up and manually trace over to create CAD and BIM as-built files

Provides detailed background to overlay real-time information as generated from IoT systems and integrations

Serves as a background layer for modeling simulations



Matterport solutions for AEC

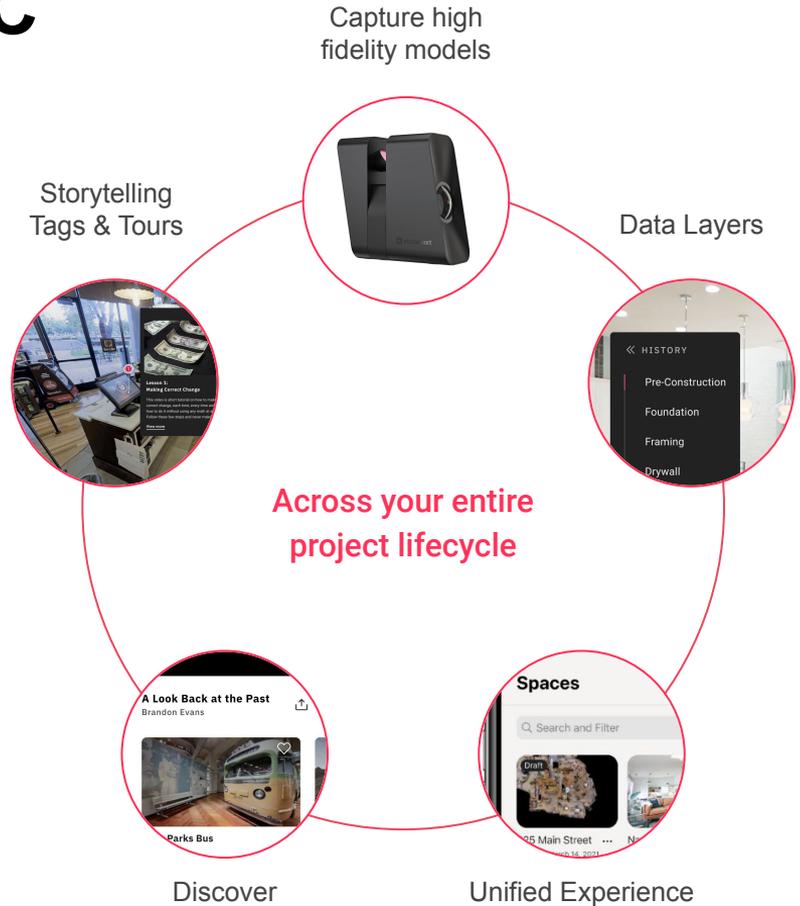
Key takeaways

Streamline documentation, 3D scans as-builts, and collaborate with all your teams - from design to handover

Execute design and BIM modeling processes easier with digital twin cloud data of site conditions

Matterport digital twin platform integrates seamlessly with your existing software

Manage an entire project portfolio remotely, from anywhere



Q&A session

Visit our booth at **CON133**

Learn more at **matterport.com**

Reach out to us at **sales@matterport.com**

Claim your learning unit (LU). Use the QR code or head to:

bit.ly/3Soznna





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