

REALITY LOOP REPORT

From talk to tangible outcomes.
Insights from the BIM Smart Summit.

4th Annual BIM Smart Summit 2026

REPORT ISSUED April 24, 2026

PRESENTED BY

LEAPTHOUGHT



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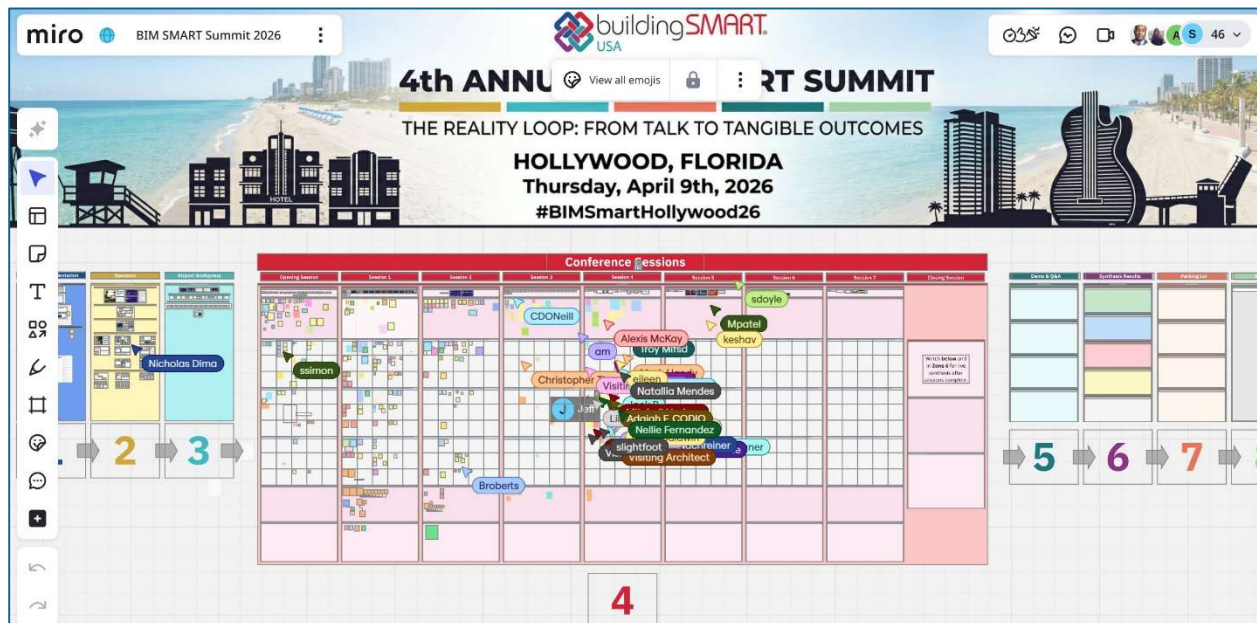
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Executive Introduction - Welcome to the Reality Loop Report

This isn't a recap. It's a reflection of the industry, captured in real time at the 4th Annual BIM SMART Summit through working sessions, discussions, debates, audience input, and documented by our AI Agents.

What you will find here has not been softened or polished into perfection. It is grounded in what practitioners, owners, designers, contractors, trade partners, and technology leaders are experiencing across projects today.

The insights in this report come directly from the room. They come from the conversations that are often avoided in more formal settings, from the tensions that exist between expectation and execution, and from the recurring issues that continue to surface across digital delivery in the AEC industry. These are not isolated problems. They are patterns. And these patterns point to a larger issue, the ongoing gap between what is promised and what is actually delivered.

That gap, and the path forward, is where this report is focused.

Inside these pages, you will see where alignment is beginning to take hold and where it continues to break down. You will see discussions around BIM, VDC, AI, coordination, trust, contracts, standards, accountability, scope, and implementation. Not as separate topics, but as interconnected parts of the same system. You will also see opportunities, places where the industry is ready for change, ready for clarity, and ready to move beyond theory into action.

Most importantly, this report reflects the collective voice of an industry that is no longer satisfied with surface level conversation or theoretical alignment. It reflects a growing demand for practical solutions, clearer expectations, stronger accountability, and better alignment between policy, procurement, standards, technology, and real project delivery.

It includes a path forward: a place to identify actions, assign responsibility, improve transparency, and continue working together to solve real problems.

The Reality Loop does not end with the Summit, and it does not end with this report.

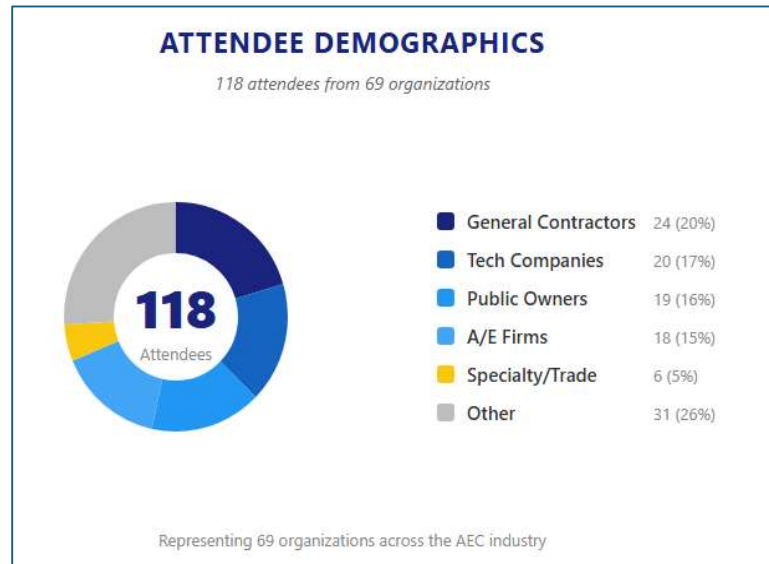
It continues through an ongoing process of capturing input, documenting experience, identifying patterns, and bringing those findings back to the industry for continued feedback, refinement, and action. The Miro boards remain active. The conversation remains open. Additional input continues to be gathered and incorporated.

We invite you to engage with it. To challenge it. To question it. To contribute to it. Push back where needed. Build on it where it resonates. Because the future of this industry will not be shaped by one voice, one company, or one event. It will be built through collective intelligence, open dialogue, honest reflection, and the willingness to confront what is not working so we can improve what is. This report is not the end. It is a point in the cycle. What happens next is up to you.

What the Summit Was Designed to Do

The 4th Annual BIM SMART Summit was built on a premise that separates it from every other event in the AEC calendar: the most valuable knowledge in this industry is not on stage. It is at the tables, in the hallways, and in the things people say when they are not performing.

The Summit achieved meaningful cross-industry representation, with no single stakeholder category dominating the room. The presence of 19 public owner representatives (16%) alongside 24 general contractors (20%) and 18 A/E firms (15%) meant that the conversations about contracts, procurement, and standards were informed by all sides of the table. The 20 technology company attendees (17%) ensured that practitioner feedback reached the people using and building the tools. Six specialty/trade contractors represented 5% which brought an often-underrepresented voice to discussions about BIM scope, trade inclusion, and subcontractor accountability and responsibility.



Every session was built around a three-part structure: Expert Presentations, Roundtable Discussions, and Reality Loop Debrief, designed to move the conversation from the stage to the room and back again. That was the intent.

Part 1: Expert Presentations (20 Minutes) Two session leaders shared focused, 10-minute Reality Stories covering the problem they faced, the real constraints, what happened, and the lesson learned. No 30-minute sales presentations. No theory without proof.

Part 2: Roundtable Discussions (30 Minutes) Attendees broke into small, facilitated groups to discuss the topic through their own project experience. People went off topic. They jumped around. They talked about what was important to them, not what was scripted. They asked questions, challenged each other, and had real dialogue after each session. The conversations were organic, and attendees were given the opportunity to agree, disagree, and speak up.

Part 3: Reality Loop Debrief (10 Minutes) Session leaders returned to the stage while a facilitator synthesized recurring themes, surfacing gaps and contradictions live, and connecting discussion back to industry-wide implications.



The structure created the conditions. The people in the room created the value. It was documented on the Miro Board, and the AI Agents documented it for this report.

The Miro board was not a side activity. It was the primary capture tool. Every session had its own frame. Every frame had areas for audience reactions, roundtable responses to three guided prompts, notable quotes and metrics, and an open comment section that remained active after the event. Attendees contributed in real time throughout the day, and the board reopened post-event through April 17, 2026, for continued input at attendee request.

The Reality Loop: From Talk to Tangible Outcome

The 4th Annual BIM SMART Summit was intentionally designed to do what many industry events avoid: create a space, a home base, where owners, contractors, designers, technologists, and advisors could speak honestly about the true state of digital delivery in the AEC industry.

Not the version that sounds good in a panel discussion. Not the version that gets cleaned up for marketing. The real version. What is actually happening on projects. What is working. What is failing. What is unclear. What is underfunded. What is misunderstood. What is being pushed forward without the structure needed to support it.

The goal was not to present solutions as if they were already fully defined. It was to create space for honest discussion about the current state of digital delivery in the AEC industry, from multiple perspectives, in the same room, at the same time.

The Summit theme, **The Reality Loop: From Talk to Tangible Outcomes**, was chosen because the AEC industry has spent years developing standards, frameworks, contracts, processes, and tools, yet too often still struggles to turn those efforts into consistent project outcomes. On real projects, teams continue to reinvent the wheel. Requirements are often disconnected from funding. Scope is misaligned. Contract language is incomplete. Expectations are vague. Innovation gets trapped somewhere between aspiration and execution.

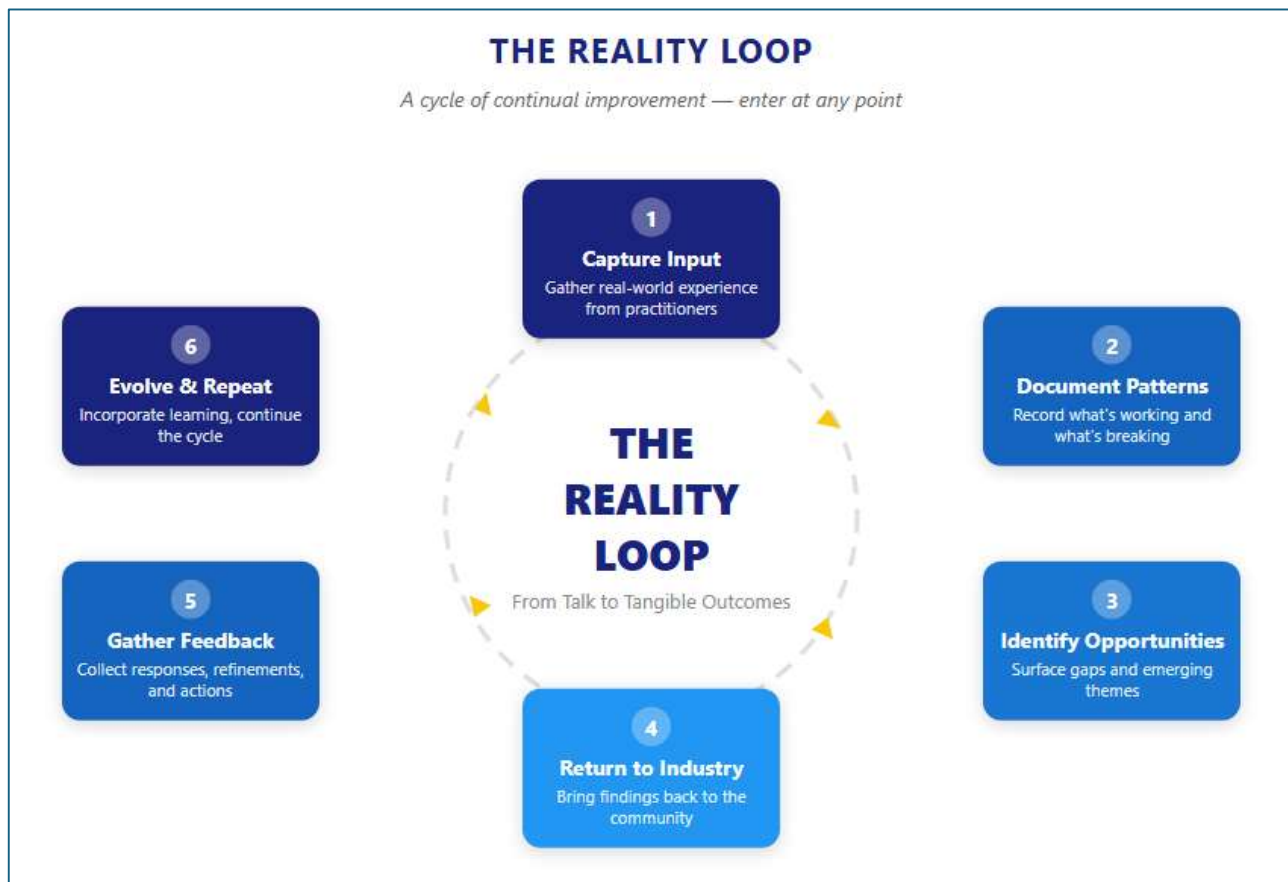
This report captures what happened in the room.

It captures what was written, discussed, debated, questioned, and challenged by real practitioners. **It captures 1,742 data points on the Miro board** reflecting input across sessions, breakout discussions and open commentary.

Those inputs were not filtered for consistency or simplified for readability. They were analyzed to identify patterns, areas where the same issues are being raised across different roles, organizations, and project types, as well as identify the outliers that challenged them.

Those patterns are significant. That is where collective intelligence becomes industry intelligence.

This report is designed to surface those patterns. It brings forward the themes, tensions, and questions raised. It is published not for applause, but for use. It is for every owner, architect, engineer, contractor, consultant, trade partner, technologist, and industry leader trying to solve these problems, often without realizing how many others are wrestling with the same issues.



This report is not a conference recap. It is a call to action.

The Reality Loop is free, open to anyone, and designed to be a safe place for the industry to speak honestly. It gathers feedback from practitioners across every discipline, documents what they are experiencing, synthesizes the patterns, acts on what emerges, and carries those findings back to the industry for consensus, refinement, and adoption.

It is a cycle of continual improvement: capturing what is happening on real projects, documenting where things break and where they work, identifying opportunities for change, and tracking whether that change occurs.

You can enter the Reality Loop at any point. Contribute a single insight, study a specific theme, challenge an existing standard, or step back and see the full picture to understand where the industry stands and where the opportunities lie.

The loop does not close when the event ends. The Miro board is a live document that lives on www.buildingsmartusa.com. Comments to this report can be entered there.

The Reality Loop's Role of AI and Agents

The Summit was transparent about its own use of AI. The agents were not used to replace human judgment but were used to support human work.

Scott Yates, Data Lead of buildingSMART's Airport Room and Chief Data and AI Officer for VDCO Data, volunteered to develop the AI systems that managed the Miro board. At the event attendees used the board to document their comments. The AI System took the inputs from the 594 sticky notes on the board and created the closing speech at the event, which was then read live by the event coordinators.

It was also used to extract, organize, and categorize additional sticky notes and comments that were gathered post conference from attendees across nine sessions for this report. AI synthesized hundreds of sticky notes across sessions and identified recurring patterns. AI compared content, flagged missing or conflicting data, categorized attendee feedback by theme, and will be maintaining a structured knowledge base as we continue forward. AI agents were also used to reduce report creation time, automate document categorization, and support quality checking.

The role of AI in the Reality Loop is to support synthesis, not to replace thinking. We believe AI agents can help the industry capture, organize, and connect its collective experience. But the accountability for what gets done with that knowledge remains with the humans responsible for delivering the report.

This matters because the conversation about AI in AEC is too often framed as a choice between AI is the answer for everything or the end of everything. The Summit demonstrated a third option: AI as infrastructure for continuity.

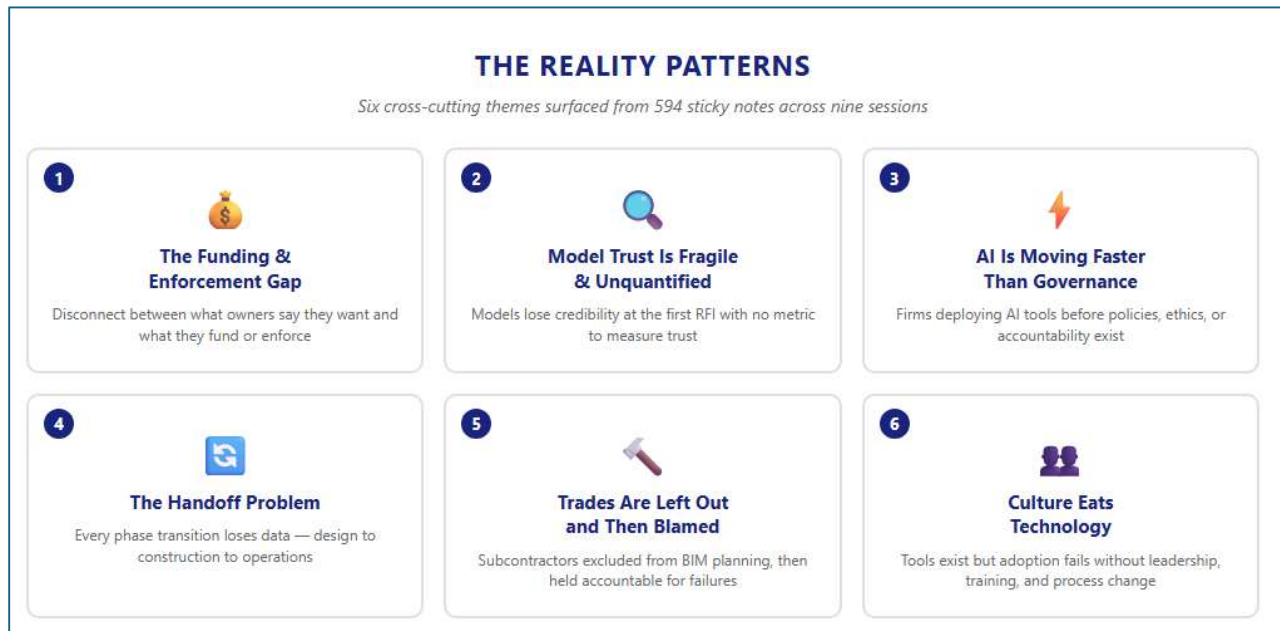
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The Reality Patterns

Several patterns emerged from the conference and comments with such consistency that they cannot be dismissed as individual opinions.

These are systemic patterns. They represent the industry's actual condition, as described by the people doing the work. These patterns are documented below.



Pattern 1: The Funding and Enforcement Gap

The single most persistent theme across the entire Summit was the disconnect between what gets written into BIM/VDC requirements and what gets funded, delivered, and enforced. Attendees described a cycle where owners mandate BIM in contracts but don't fund it; contractors propose BIM in bids but cut it from scope after award; and standards are written but never enforced.

As one attendee put it: ***"There is a disconnect between what owners say they want and what they actually fund. Until that gap closes, digital delivery will keep getting value-engineered out."***

Another noted: ***"We still have GCs who bid BIM but don't deliver it. And owners who require it but don't enforce it."*** This is not a technology problem. It is a procurement and accountability problem. Until BIM requirements carry the same weight as safety requirements, non-negotiable, funded, audited, and enforced, the gap between policy and practice will persist.

Pattern 2: Model Trust Is Fragile and Unquantified

Across sessions, attendees repeatedly described a model trust crisis. Models lose credibility at the first RFI. Design models are used for purposes they were never designed for. As-built

conditions are assumed, not verified. And no one has a standard way to measure whether a model is trustworthy.

The statement **"The Model stops being trusted at the first RFI"** appeared in multiple sessions, making it arguably the Summit's most defining insight. When a single request for information can destroy confidence in a digital model, the foundation of every downstream process - coordination, fabrication, quantity takeoff, operations - is compromised. Multiple attendees called for a "model trust score" or "confidence index" that travels with the model through the project lifecycle. Until model reliability is quantifiable, it will remain subjective, and therefore unreliable as a basis for decision-making.

Pattern 3: AI Is Moving Faster Than Governance

The Summit's AI-related discussions revealed a clear pattern: firms are deploying AI tools on projects before the contracts, insurance, standards, and governance frameworks have caught up.

As one attendee described it: firms **are "using tools and producing outputs that their contracts don't acknowledge, their clients don't fully understand, and their insurers haven't priced."** The industry currently has no shared framework for AI transparency, no standard for disclosing when AI is involved in project deliverables, and no clear answer to the question of who is liable when AI-generated content causes failure.

The firms that are succeeding, like Moss Construction, VDCO Tech, and McCarthy Building Companies, have built internal governance structures. But these are proprietary to those firms, not industry wide. The consensus was not that AI should be slowed down. It was that governance needs to speed up.

As one attendee wrote: **"Governance doesn't have to mean slow. It means thoughtful. You can move fast with guardrails."**

Pattern 4: The Handoff Problem - Where Data Goes to Die

Every phase transition in a construction project - from design to construction, from construction to operations, from one team to the next - is a point where data, context, and accountability are lost. This was identified across multiple sessions as the single biggest structural failure in the industry's digital delivery process.

Design models are not validated before they are used for construction planning. Construction data does not flow into commissioning. Operations teams inherit digital assets they cannot use.

As one attendee wrote: **"The biggest handoff failure is when operations doesn't know the model exists."** The feedback loop that should connect construction, design and operations exists in theory, but in practice, it barely functions.

Until this loop is closed through data standards, contract requirements, and shared accountability, the industry will continue to lose the value of its digital investments at every phase.

Pattern 5: Trades Are Being Left Out and Then Blamed

A theme that ran through Sessions 3, 4, and 5 with intensity was the position of trade partners and subcontractors in the BIM ecosystem.

Trades are often excluded from BIM planning, not given access to models until after coordination starts, asked to deliver BIM requirements they were not informed of during bidding, and then held accountable when data doesn't flow.

One attendee put it bluntly: ***"Subs often bid without knowing or being given full BIM Scope. Then when they get it, they are hammered over pricing."*** Another observed: ***"If we want trades to adopt BIM, we have to pay them for it."*** Other attendees agreed, ***"Contractors don't let us talk to owners, so we don't receive the models and are starting the process from scratch most of the time."*** This is not a training problem. It is a procurement problem.

Until trade partners are included in BIM planning from day one, given access to models as part of their contract, and compensated for the BIM work they are asked to perform, the industry's coordination ambitions will continue to fall short at the point of execution.

Broward County Construction Management Division took great notice of this process break and vowed to correct this issue. They currently make the models available at bidding and encourage subcontractors to reach out directly.

Pattern 6: Culture Eats Technology

Multiple attendees across sessions made the same observation in different words: the industry's technology is far ahead of its organizational readiness to use it. The challenge is not that tools don't work. It is that firms have siloed disciplines, rigid hierarchies, and resistance to transparency, conditions that prevent data from flowing, prevent feedback from reaching decision-makers, and prevent learning from being captured and applied within their own companies.

"Process before tools. If you can't define your workflow on paper, software won't save you." One attendee wrote. ***"The hardest part of BIM isn't the software, it's getting people to follow the process."***

The firms that will lead in AI and digital delivery are not the ones with the best software. They are the ones that have built cultures where learning is not a weakness, where failure is documented rather than hidden, and where accountability is shared across disciplines rather than concentrated in a single department.

The Reality Loop is looking to do just that.

From Talk to Tangible Outcomes: Action Items

1. Provide BIM models and full BIM scope to subcontractors during bidding — not after award. Broward County agreed to take this on. The synthesis called it out by name. Trades are

bidding from PDFs, then getting hammered on pricing when the BIM scope shows up. This was the single most concrete owner-level commitment of the day.

2. Make BIM requirements enforceable contract language, not optional addendums.

Showed up in the Opening, Session 3, and Session 5. The room consensus was clear: BIM specs that aren't in the base contract with funded scope get value-engineered out every time.

3. Bring a formal AI governance framework to your executive team within 90 days. This was a stated commitment from the Closing Session. The red/amber/green risk classification model from Massport was the most adopted framework of the day.

4. Issue BIM models with 2D PDFs to all subs on every BIM-based project. The synthesis flagged this as a concrete room commitment. Multiple sessions confirmed that subs don't get models and then get blamed when coordination fails.

5. Implement dimensional sign-off milestones with defined accuracy tolerances. From Session 7, coordination is not validation. If no one is accountable for accuracy, the model is just a suggestion. This can go into contracts and BEPs immediately.

6. Stop treating closeout and data handover as an afterthought, plan it from day one. Sessions 2 and 5 hammered this. Model data dies at every phase boundary. If owners required structured data handover plans in contracts, the rest of the chain would follow.

7. Establish Responsibility Matrices in every BEP, define who owns what at every phase handoff. This was a 30-day commitment from the closing synthesis. The BEP is the most underutilized tool in the industry, and accountability gaps are where rework lives. Broward County has now adopted an NBIMS v4-aligned BCF 202 document and BEP with 43 BIM Uses mapped across 7 national categories.

8. Get decision-makers into BIM / VDC / AI conversations, not just practitioners. The people who approve budgets don't understand what they're approving. This surfaced across the Opening, Session 5, and the synthesis narrative. Until executives are in the room, digital delivery stays underutilized.

9. Build internal AI literacy. Don't wait on software vendors to teach your teams. Session 1 was emphatic: firms that depend on vendor training get locked into one ecosystem. The firms winning with AI, invested in clean data and internal capability first.

10. Quantify the cost of NOT doing BIM and present it to leadership with data. The ROI argument keeps losing because the cost of failure is never calculated. Multiple attendees said: ***"Take the emotion out and show the numbers."***

These actions are not exhaustive, they are the starting point. The full set of Reality Loop action items, including supporting tasks and industry-wide initiatives, is provided at the end of this report.

What Happens Next

This report is not a finished product. It is a working document inside an active Reality Loop, designed to evolve through ongoing input, challenge, and contribution from industry practitioners.

The Reality Loop Report will be distributed through buildingSMART USA and industry partners. It is intended to reach owners, contractors, designers, technology companies, trade partners, and policy makers who are in a position to act on what is documented here.

The Miro board was open to attendees through April 17, 2026 for post-event contributions, and every addition had the potential to be included in this report. Future events will continue to use this model: real-time capture, open participation, and published synthesis.

Participation is not restricted by membership. The Reality Loop is open to anyone in the AEC industry who has experience to share, questions to raise, or commitments to make. You do not need to be a buildingSMART member. You do not need to be an expert. You need to be willing to engage honestly.

Future synthesis will be supported through AI agents and industry partners. The patterns documented in this report will be tracked over time. Future summits will revisit commitments made here and ask: What changed? What didn't? Why?

Named contributors are listed individually. Every attendee is listed in this report as a contributor as their participation in the event was foundational to the report. If attendees chose anonymity in posting their sticky notes, their insight was still included. The name was optional. The input was what was needed.

For a deeper dive into the presentations, board responses, and industry implications behind each action item, see the Session-by-Session Analysis that follows.

Session-by-Session Analysis

Opening Session: BIM, VDC, AI. From Talk to Tangible Outcomes

8:00 AM - 8:30 AM

Speaker: Cindy Baldwin, CGC, LEED AP, CM-BIM, CM-Lean. President, VDCO Tech & VDCO Data. Baldwin has over 34 years of AECO industry experience. She serves on the Executive Committees for buildingSMART USA, BIMForum and USIBD. She is the Chair of buildingSMART USA Airport Workgroup and is the event organizer.

What Was Presented

The Phone Bucket. The Summit opened with a challenge that set the tone for the entire day. As the conference kicked off, attendees were asked to put their phones in a bucket. The opening slide read: "Your phone goes in the bucket. Drowning without Devices." Baldwin was direct about what she was asking: "If I were sitting where you are, I would hate this. Giving up my phone feels wrong. It's a reflex I didn't even choose to have, and that's exactly the problem."

Remember The Drowning Ducklings. Baldwin explained that at last year's conference she introduced the drowning duckling. That "killing kittens" at BIMForum 20 years ago has turned into drowning ducklings today. She presented ten specific problems plaguing the industry as "Drowning Ducklings": No BIM Execution Plans, file naming chaos, LOD ambiguity, clash detection avoidance, no templates, data silos, over-modeling, training deficiency, and more. These were not theoretical. They were documented failures occurring on real projects. She stated we are still drowning, but this year she wanted to talk about the "Why".

The phone exercise was not a gimmick. It was a deliberate connection to the keynote's central thesis, drawn from Jonathan Haidt's research in his book *The Anxious Generation*. When we remove the conditions for safe, grounded exploration, when screens replace real-world connection, we don't create bold explorers. We create anxious ones.

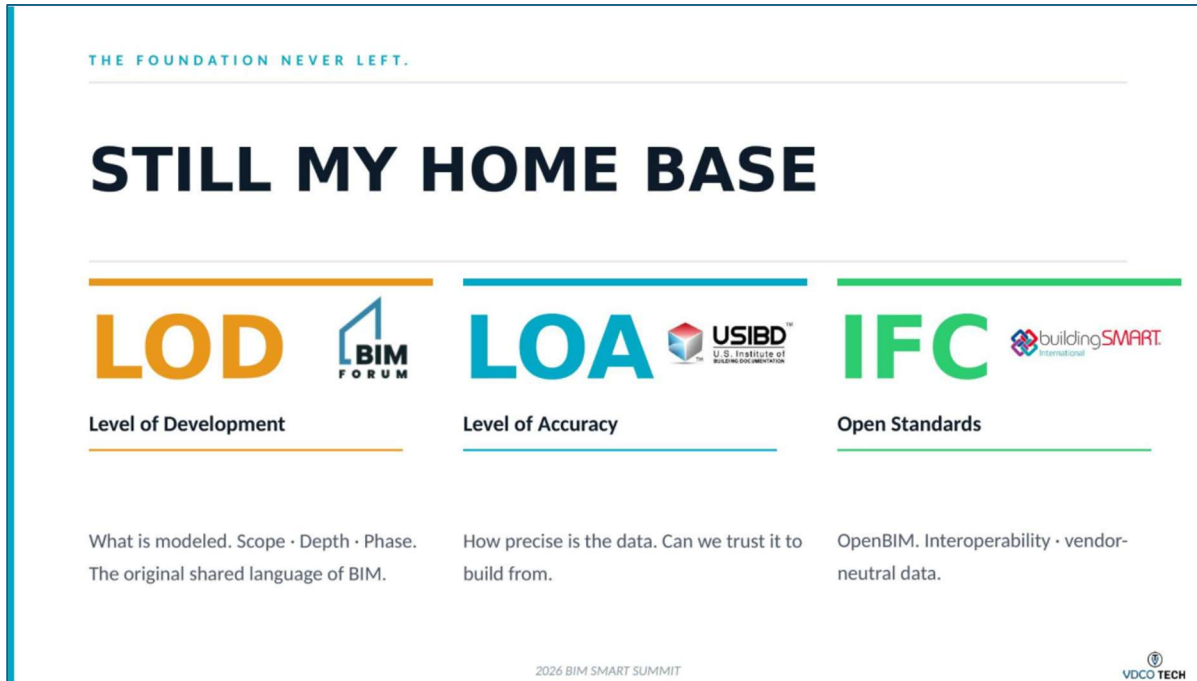
The Home Base Thesis. The keynote then introduced Bowlby and Ainsworth's Attachment Theory as a framework for understanding how humans learn and grow.

Humans have two behavioral modes --- Explorer (curiosity, risk, innovation) and Defender (anxiety, retreat, survival). Both require a home base to function. Baldwin then turned this understanding of human behavior and applied it to our industry's professional lives. Baldwin argued that BIMForum served as the industry's home base twenty years ago: " There were debates, disagreements, and egos in the room. It was great! What we've lost is people, in the same space, working through the same problems in real time." When that home base disappeared, the industry fragmented and messages blurred.

Baldwin drew a parallel to digitization in our industry: That our digital technology cannot be used to replace the human connection. When it does, our industry has the same outcome. Increased anxiety and distrust while hindering our ability to innovate.

Home Base and the Need of the Industry. The concept of "Home Base" was not branding. It was a diagnosis.

The AEC industry does not lack conferences. It does not lack technology. It does not lack smart people who understand what needs to change. What it lacks is a place where those people can speak honestly, challenge each other productively, and return to when the pressure of daily project delivery makes it easier to comply than to improve.



THE FOUNDATION NEVER LEFT.

STILL MY HOME BASE

LOD	LOA	IFC
Level of Development	Level of Accuracy	Open Standards
What is modeled. Scope · Depth · Phase. The original shared language of BIM.	How precise is the data. Can we trust it to build from.	OpenBIM. Interoperability · vendor-neutral data.

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Home Base means a place where owners can admit their requirements are unfunded. Where contractors can say they bid BIM but don't know how to deliver it. Where designers can acknowledge that their models weren't built for what they're being used for. Where technology companies can hear, directly from practitioners, where their tools fall short.

This kind of honesty does not happen in environments designed for marketing. It happens in environments designed for learning. That is what the BIM SMART Summit is! HOME BASE!

The Industry Problem. The keynote laid out four systemic failures: disconnected workflows where tools don't talk to each other and there is no single source of truth; poor handover where every phase transition loses critical information; expensive rework where up to 30% of construction costs trace back to poor data and coordination failures; and digital without trust where technology was deployed but no one trusts the data, so no one uses it. Baldwin's framing: "We gave the industry tools for exploration. We forgot to build the home base."

How Baldwin Applied the Learning. Baldwin introduced her two-company model: VDCO Tech as the Home Base ("boots on the ground - BIM modeling, management, coordination, real-world execution") and VDCO Data as the Explorer ("brains in the cloud - AI, structured data, intelligence layer"). "Exploration without a home base is chaos. A home base without exploration is stagnation. The loop only works when both exist."

AI in AEC. The keynote also presented hard numbers: an estimated \$340B AI market impact in construction by 2030 (McKinsey); thirty percent of activities (not jobs) across industries can be automated by current technology (McKinsey); and only 27% of AEC firms actively using AI (Bluebeam). Set against this, AGC's 2026 study showed 82% of firms struggling to hire crafts and 80% struggling to hire salaried staff. Baldwin also disclosed Autodesk's recent layoffs as reported (1,350 jobs in 2025, 1,000 in 2026) as evidence of the shifting landscape.

Rather than concede the AI-replaces-jobs narrative, Baldwin challenged it with a live example. She introduced Nathan BuildRight™. An AI agent that started as VDCO Tech's internal knowledge brain and has since been promoted to an AI Supervisor for new staff. Nathan's first direct report: a recent college graduate. "By shifting supervision of tasks to AI, we've unlocked a new workforce model. Our teams can manage more work with greater consistency, while junior staff are trained through guided execution instead of trial and error. It's not job replacement, it's job creation and workforce acceleration," said Baldwin.

The Summit Charge. Baldwin closed the opening by framing the BIM SMART Summit as "not a conference. It's a home base, your safety net."

Miro Board Key Comments:

- 1. The Funding-Execution Paradox.** The room kept circling back to the same frustration: everyone says they want BIM/VDC/AI, but nobody funds it properly. Stickies like **"there is a disconnect between what owners say they want and what they actually fund"** and **"the cost of NOT doing BIM is rarely calculated"** reveal an industry that can articulate the value but can't get it into a budget line. The ROI problem is structural, **"the ROI of BIM is hard to show when the value shows up on someone else's budget line."** This isn't ignorance. It's a misaligned incentive structure.
- 2. AI as Amplifier, Not Savior.** There's a sophisticated split in how attendees think about AI. The optimists see force multiplication, submittal review saving 40% of time, AI agents handling tasks end-to-end, and preconstruction estimating cut by 60%. But the skeptics aren't anti-AI; they're anti-carelessness. **"AI will not fix broken processes. It will scale them"** and **"The risk isn't AI replacing jobs. It's AI replacing judgment, before the judgment is trustworthy."** The room isn't debating whether to adopt AI. It's debating whether the foundation is ready for it. **"We're in a period where AI is advancing faster than the contracts, insurance, and standards frameworks that govern our industry. This creates a gap, a 'reality loop' where firms are using tools and producing outputs that their contracts don't acknowledge, their clients don't fully understand, and their insurers haven't priced."**
- 3. The Standards-Culture Tension.** A recurring theme: standards exist, but culture defeats them. **"The hardest part of BIM isn't the software; it's getting people to follow the process."** The BEP is **"One of the most underutilized tools in AEC."** Contracts don't enforce what specs require. The underlying tension is that the industry keeps writing rules it doesn't follow, and the stickies suggest the problem isn't the rules themselves, it's that the people writing them aren't the people living them. **"Most BIM coordinators are doing compliance work, not value work."** Another said, **"There's a big gap between 'we use BIM' and 'we use BIM well.' Many firms say they do digital delivery, but when you look under the hood, it's just 3D modeling with no standards, no data structure, and no plan for how the model gets used downstream."**

4. **The Next Generation Gap.** Multiple stickies flag education and workforce development. *"We need better BIM education at the university level,"* Another stated, *"We need to train the next generation differently,"* and *"Can the education system teach them what they need for our industry?"* This connects to a deeper anxiety: the experienced practitioners in the room know the industry is transforming, but they aren't confident the pipeline behind them is being prepared for what's coming.
5. **This Summit as Proof of Concept.** Stickies like *"This is the only conference I've attended where people actually said what they think,"* Another stated, *"We need fewer thought leaders and more thought doers,"* and *"Please keep running this event"* signal something important. The room recognized that the format itself (phone bucket, Miro board, honest conversation) was the innovation. The Opening Session didn't just discuss the industry's need for a home base. It demonstrated one. *"We need fewer 'thought leaders' and more 'thought doers'."* Another stated, *"Less stage. More table. Less pitch. More proof. That's what BIM SMART Summit represents to me."* And another, *"This event should be required reading for every project executive and procurement officer in the AEC industry. Not the slides. The conversations. The moments where someone said what everyone else was thinking but was afraid to put in writing. That is where the real value is."* Lastly, *"The gap between what gets presented at conferences and what happens in the field is one of the biggest problems in AEC. Conferences show best-case results. Jobsites deal with worst-case constraints. This event bridged that gap by letting people be honest about what isn't working."*

Tensions and Gaps:

The opening surfaced an immediate tension between aspiration and execution. Multiple attendees noted that the industry talks about BIM and AI adoption but fails to fund it, enforce it, or measure it. The disconnect between what leaders say and what gets procured was identified as a systemic problem, not a project-level one.

Industry Implication:

The opening confirmed what the Summit was designed to test: the industry's gap is not technological. It is organizational, contractual, and cultural. The tools exist. The standards exist. What does not exist is consistent alignment between what gets written into contracts and what gets funded, delivered, and enforced on projects.

None of that is new. The industry has been saying it for years.

What's new is creating a "Home Base" where the problems are named, the conversations are honest, and the accountability carries forward.

Session 1: Real World AI Use Cases. Massport's Digital Twin Roadmap

8:30 AM -- 9:30 AM

Speakers: Scott Yates, Chief Data & AI Officer, VDCO Data | Michael Salvato, Managing Partner, InfraRE Partners

Scott Yates is VDCO Tech's Chief Data and AI Officer with over 22 years of experience in infrastructure, utilities, transportation, life sciences, and government. Most of his work involves connecting capital project data to operations through asset management, digital twins, and information governance. He's active in BuildingSMART USA, USIBD, and IFMA.

Michael Salvato runs InfraRE Partners, a boutique management consulting firm focused on infrastructure and the built environment. His background spans capital program management, asset management, enterprise systems, and digital transformation. He advises CEOs, COOs, and Chief Engineers across the infrastructure sector and is currently working on the role of AI in mega-project delivery for the US Department of Defense.

What was presented

This session used the Massport Integrated Network of Digital Twins (MINDT) program, covering Boston Logan Airport and the Port of Boston, as a backdrop for two questions the industry has been avoiding: how do you govern AI responsibly, and how do you scale digital twin and AI use cases with discipline rather than enthusiasm?

The structure was the argument. Salvato took the first half and laid the governance foundation. Yates took the second half and introduced the scaling engine. You cannot talk about use cases until you have talked about the operating conditions under which those use cases can be trusted.

The governance problem. The presentation opened with a cartoon that got an immediate reaction from the room: a massive line of people queuing for "AI & Digital Twins" while the desk labeled "Master Data Management & Governance" sat completely empty. The initial argument was blunt. If organizations skip governance, what they get is not intelligence. It is automation of confusion, usually at scale, usually with a lot of confidence attached to it. He framed the core question as relational, not technical: what kind of relationship are we trying to build with AI? Is AI something we bolt on to accelerate existing disorder, or is it something we place in right relationship with trustworthy data, human judgment, and institutional responsibility? For Massport, the answer was unambiguous: governance is the condition that makes meaningful AI use possible.

Fragmented truths. The problem MINDT was built to solve is not a lack of data. It is fragmented truth. BIM provides project truth. Enterprise Asset Management provides asset truth. GIS provides spatial truth. IoT delivers operational truth. ERP provides business truth. Each system sees something real, but critical decisions almost always sit at the intersection of two or more of them. People have historically stitched those truths together manually, a process that is slow, fragile, and impossible to scale. MINDT is a unified control tower where those truths

can meet in a coherent and actionable way. Salvato posed a question the room clearly recognized: where are the blind spots in your own organization created not by missing data, but by disconnected data?

Governance that enables, not restricts. Rather than beginning with a compliance manual, the MINDT team starts with a short Information Management Plan answering four practical questions: where does the data live, who can see it, how is AI being used, and how does the output reach the client. Their golden rule: the worst AI governance policy is one centered around restrictions, one that gives you a lot of "nos" but no "yeses." An AI policy should be enabling, not restricting. The maturity model starts with project level control, scales to program level frameworks, and only then moves toward enterprise governance. Massport already had an enterprise AI policy that was quite restrictive. The MINDT team convinced them to pilot a risk-based Information Management Policy on this program and prove improvements to the enterprise policy through validated practice. Governance earned through demonstrated competence, not imposed through bureaucratic fiat.

The risk classification matrix. To make governance operational on a daily basis, the team uses a traffic light model that became one of the most referenced frameworks of the summit. The Green Zone is unrestricted: public information, generic references, industry data. Teams can use any public AI tool (ChatGPT, Claude) with no approval needed. The Amber Zone is enterprise only: project-specific insights, internal drafts, workshop notes. Only enterprise-controlled tools (such as Massport's M365 Copilot) are permitted, and human review is required before any output reaches stakeholders. The Red Zone is restricted: security plans, critical infrastructure details, client-flagged sensitive data. No AI use is permitted without explicit stakeholder and IT sign-off. The model removes guesswork and, critically, tells people where they *can* say "yes" to AI instead of providing a blanket "no" across the board. The intent is to create a culture of safe, productive AI use instead of a culture of fear.

AI DATA RISK CLASSIFICATION MATRIX

The framework the room coalesced around — the most adopted framework of the day

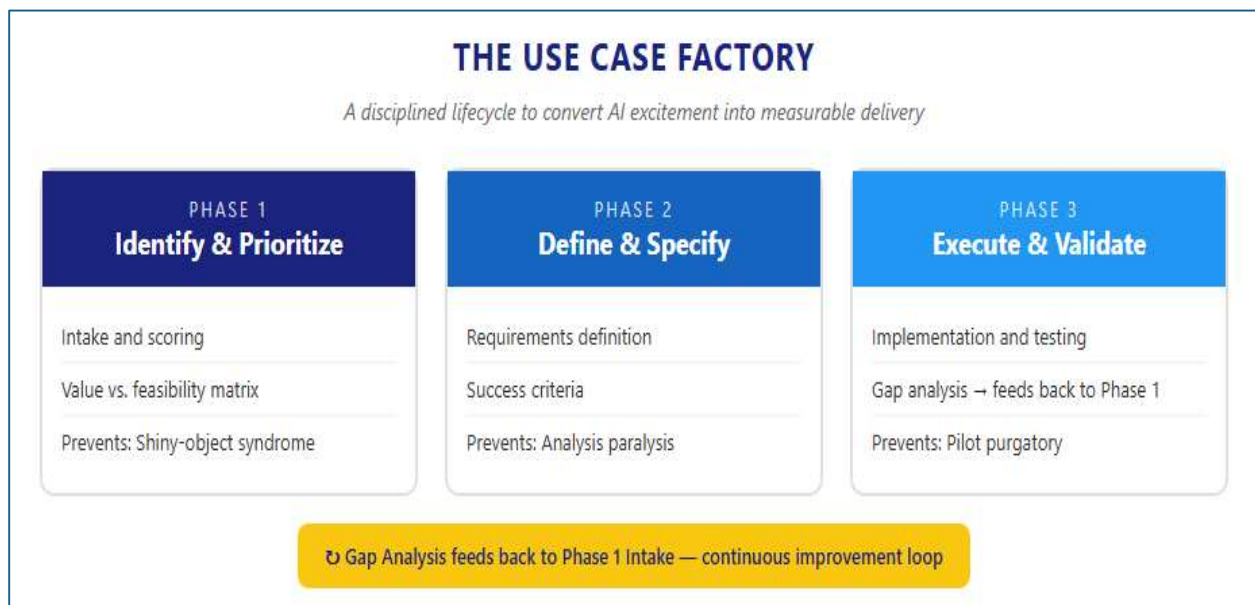
<div style="background-color: #2e7d32; color: white; padding: 5px; text-align: center;">GREEN ZONE</div> <div style="text-align: center; font-size: small; color: #555;">Unrestricted / Public</div> <ul style="list-style-type: none"> ✓ Public or non-sensitive data ✓ General-purpose AI tools permitted ✓ Standard security protocols apply ✓ No additional sign-off required 	<div style="background-color: #ff9800; color: white; padding: 5px; text-align: center;">AMBER ZONE</div> <div style="text-align: center; font-size: small; color: #555;">Enterprise-Only / Internal</div> <ul style="list-style-type: none"> ✓ Internal or operationally sensitive data ✓ Approved enterprise AI tools only ✓ Data stays within org boundaries ✓ Manager approval required 	<div style="background-color: #c00000; color: white; padding: 5px; text-align: center;">RED ZONE</div> <div style="text-align: center; font-size: small; color: #555;">Restricted / No AI Without Sign-Off</div> <ul style="list-style-type: none"> ✓ Confidential, security-critical, or PII data ✓ No AI processing without explicit authorization ✓ Full audit trail required ✓ Executive or legal sign-off mandatory
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Developed for the Massport MINDT program — applicable to any organization deploying AI

The AI ethics statement. Alongside the risk matrix, the team operates under a one-page, technology-agnostic AI ethics statement built to survive the next model release without revision. Four rules: **AI assists, humans decide** (no binding decisions made by AI, period); **sensitive data stays protected** (Amber and Red zone content never enters public models); **human accountability** (project teams remain fully accountable for accuracy, and all source prompts must be traceable); and **total transparency** (whenever AI is used for synthesis or drafting, that use is explicitly disclosed to all stakeholders). Salvato kept these deliberately simple: easy to understand, easy to enforce, and designed so that technological advancement never outpaces ethical responsibility.

The use case explosion. Yates then took over to address the second challenge. His opening observation drew knowing laughs: the impact of AI and digital twins on organizations from a systems implementation perspective is unlike anything he has seen in twenty-plus years of enterprise system implementations. For two decades, getting end users to adopt new digital strategies ranked only one rung above visiting the dentist. But something happens when people see a well-demonstrated digital twin or AI solution. Old paradigms shatter instantly, and demand for new use cases skyrockets. Without structure, that unfiltered demand crashes into three hazards: shiny object syndrome (chasing every new technology without strategic alignment), analysis paralysis (spending months evaluating tools but never deploying), and pilot purgatory (running isolated experiments that might work in a lab but completely fail to scale).

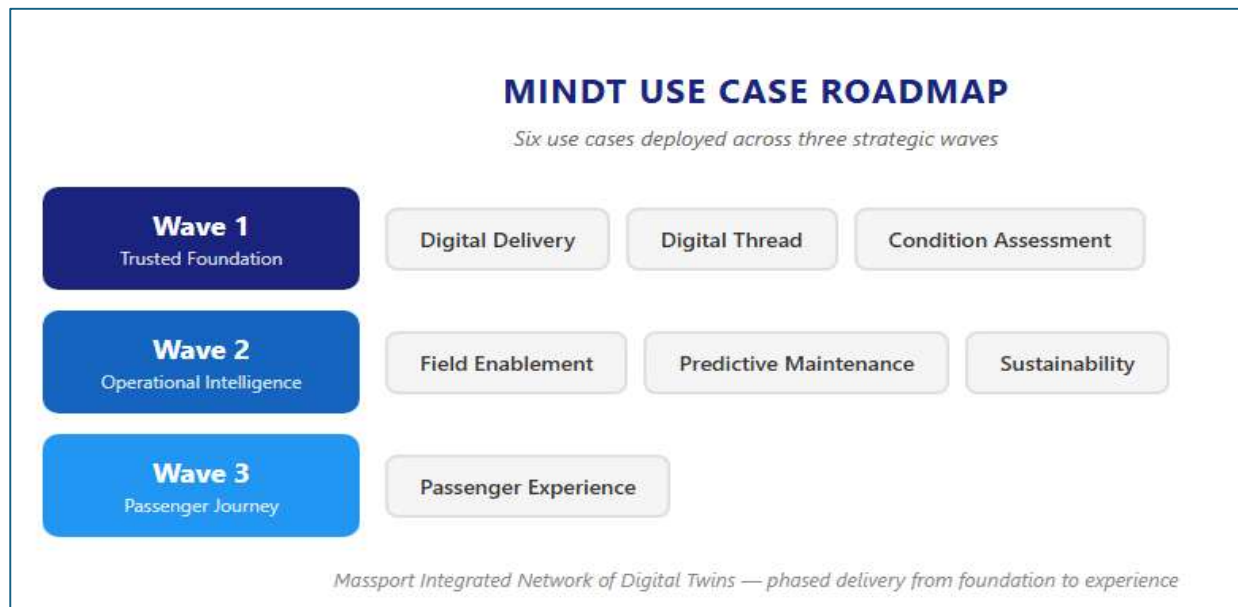
The Use Case Factory. To convert excitement into disciplined delivery, the team built the Use Case Factory, a continuous three-phase lifecycle with formal authorization gates. Phase 1 identifies and prioritizes: every idea is scored against six dimensions and plotted on a value matrix. If an idea passes Gate 1, it moves to Phase 2: define and specify. This is the critical phase. It establishes vertical traceability and executes a design freeze. The team is not building yet; they are making sure intent and verification are properly defined so the effort can be scoped and measured. Phase 3 is execute and validate: build the solution, curate the data, train or harness the models, and measure outcomes against original baselines. The gap analysis at the



end of Phase 3 flows directly back to Phase 1 as new intake, creating a continuous improvement loop. The factory never stops.

Six use cases in three waves. The factory's first run produced Massport's MINDT Use Case Roadmap, organized into three waves based on dependency, readiness, and value, not visibility or excitement. Underpinning all three waves is a shared foundation of identity, governance, and security. Wave 1 (Trusted Foundation) includes Digital Delivery and Digital Thread for asset truth, and Condition Assessment Integration for smart capital planning. Wave 2 (Operational Intelligence) deploys Field Enablement and worker safety, Predictive Maintenance on critical assets, and Sustainability and Energy Performance. Wave 3 (Passenger Journey) focuses on Passenger Experience Optimization.

The sequencing was deliberate and the presenters were explicit about why: you do not begin with the most visible or exciting use case. You begin with the ones that establish trust, structure, and reusable value. You have to build the foundational and operational intelligence layers first before you can effectively optimize the end user experience.



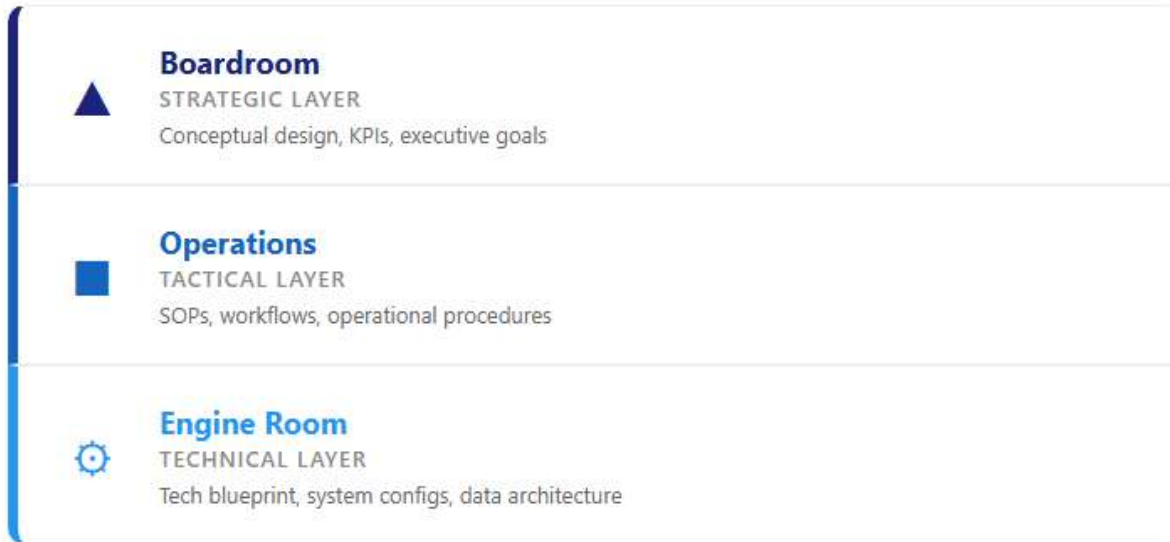
Vertical traceability. Throughout the factory process, vertical traceability ensures that initial intent survives implementation. The guiding principle: if you cannot trace a direct line from the boardroom objective down to specific system configurations, you will inevitably build the wrong thing.

The model uses three layers. The Boardroom (conceptual design: baseline KPIs and success states), Operations (capabilities specifications, standard operating procedures, human workflows), and the Engine Room (technology blueprint: system configurations, data schemas, backend integrations).

If the structural columns do not align across all three floors, the project collapses under its own weight. This was presented not as theory but as the specific instrument the MINDT team uses to prevent the drift that kills most digital transformation programs.

VERTICAL TRACEABILITY MODEL

Every decision traces from boardroom strategy to engine room execution



↑ Full traceability ensures strategic intent flows through to technical implementation and back

Miro Board Key Comments

1. **Governance Before Deployment.** This was the dominant theme. The room was emphatic that policy and structure must precede tooling. ***"Our company heavily restricts what can be used or uploaded into AI and WHICH tools/platforms we can use because our legal team is terrified of our data being available, it shows a sense of misunderstanding as opposed to working with defined guardrails."*** That tension between fear and governance was everywhere. One attendee offered a precise diagnosis: ***"IT and legal departments in firms struggle to understand AIs use and reasoning why - creates bottleneck."*** The green/amber/red data classification model emerged as a framework the room could work with. ***"I love the idea with the Green, Amber, Red, for types of data. Keeps things in its correct lane."*** The message was clear: firms rushing to deploy AI without a data strategy are building on sand.
2. **Data Quality Reckoning.** More than a dozen stickies hammered at the same point from different angles. ***"Data Governance establishment because cleaning the data means more accurate outcome from AI tools and Digital Twin"*** articulated the dependency plainly. Others got even more direct: ***"One key to using AI properly is to already know where your data is and understand what it consists of. If you understand your own data, you can then use AI to access it fast."*** And the failure mode was equally well documented: ***"Just like in anything you do, it is garbage in and garbage out. Clarify your intentions and what your goals are and AI can be your best employee."*** This session laid bare an uncomfortable truth, most firms don't have AI-ready data, and no amount of tooling will fix that.

3. **The Trust-Transparency-Liability Triangle.** Three concerns kept intersecting: Can we trust AI outputs? Are firms transparent about using AI? Who's liable when it's wrong? **"There's a huge challenge in convincing our legal and IT teams that with proper guardrails we can have safe AI utilization"** named the friction directly. Attendees also surfaced the structural gap: **"Personally Identifiable Information (PII) exists in our database and the County is fearful of that leaking through AI."** And the over-correction problem was equally visible: **"Sandboxed, restricted AI is very safe, but nearly as useful, and can introduce non-hallucination based errors from lack of good data and resources. Without purposeful data input and resource monitoring, it quickly becomes an obsolete toy rather than the useful tool it should be."** The room identified the need for frameworks.
4. **Hype vs. Substance.** The room was self-aware about AI washing. **"Distinguishing AI value from hype in 2026 requires moving past 'demo-driven' excitement and applying a rigorous filter based on operational integration and measurable unit economics"** articulated the standard practitioners want to hold vendors to. **"The barrier isn't the cost of developing AI - it's the cost of not using it! We leverage AI if it solves an operational pain point or shows clear gain. The rest is just hype."** The practitioners want proof, not promises. On the integration side, the demand was concrete: **"The Industry needs AI Agents that connect across Procore, Autodesk, Revizto and other applications rather than just their internal AI agent."** Siloed AI is still siloed.
5. **Democratization Imperative.** A quieter but persistent theme: AI can't be only for large firms. **"AI literacy is a fundamental skill that employees and companies need to prioritize and build internal capabilities. I for one am not waiting on a software vendor to teach me as I am then locked into their AI."** That independence framing, building capability rather than buying dependency, ran through multiple stickies. Attendees also asked the structural question directly: **"is there the need for an AI specialist now in firms, just like IT?"** The open standards conversation (IFC, COBie, BCF) is actually an equity conversation, without interoperability, AI stays locked inside vendor ecosystems and only the firms with the biggest budgets benefit. **"AI is supposed to compliment a human expert, not just dump out a narrative"** was the clearest statement of what real democratization looks like: tools that extend human judgment, not replace it.

Tensions and gaps

The central tension this session surfaced was between AI's potential and the industry's readiness to receive it responsibly. That tension played out across three specific fault lines.

Governance versus speed. The red/amber/green framework was well received precisely because it offers a middle path, but the room was not naive about how hard that middle path is to walk inside real organizations. Multiple attendees flagged that their legal and IT departments treat all AI use as Red Zone by default, not because they have assessed the risk, but because they have no framework for saying yes. The MINDT team's approach of earning governance credibility through a pilot, proving a risk-based Information Management Policy at the project level to drive improvements to an overly restrictive enterprise policy, was recognized as both smart and rare. Most organizations do not have institutional patience or the leadership to run that kind of experiment. The gap is not in knowing what good governance looks like. The gap is in having permission to practice it.

Data readiness. The fragmented truths problem resonated across the room, but the practical question of how to actually unify those truths went largely unanswered. MINDT provides one model, a unified control tower that integrates BIM, EAM, GIS, IoT, and ERP, but it is also a program with dedicated resources, executive sponsorship, and a consulting team built for this work. Several attendees raised the implicit question: what does this look like for an organization that does not have those resources? The Use Case Factory provides the discipline, but the data foundation it depends on is the part most organizations have not built and do not know how to fund. The data quality reckoning identified in the board comments is real, and there is currently no industry playbook for getting from ungoverned, fragmented data to AI-ready, decision-grade data on a typical AEC budget and timeline.

Liability and transparency. The ethics statement's transparency rule, disclosing AI use to all stakeholders, was one of the most discussed elements of the session. Several attendees admitted that their firms use AI for synthesis, drafting, and analysis without disclosing it to clients. The room recognized this as a ticking clock. When AI-generated work products fail, and current contracts do not address AI use, liability will default to the professional of record regardless of how the work was produced. The industry has no standard for AI disclosure, no insurance framework that prices AI-assisted deliverables differently from human-produced ones, and no contractual language that allocates responsibility for AI-generated errors. Multiple attendees identified this as the most urgent gap, not because firms are being reckless, but because they are operating in a regulatory and contractual vacuum that cannot persist.

Industry implication

Session 1 set the premise for everything that followed: AI adoption in AEC is a governance and accountability problem before it is a technology problem. The firms that are succeeding, Massport included, are not using the most advanced tools. They invested in clean data, clear classification, and defined processes before they worried about which model to deploy.

The session also surfaced something that deserves more attention than it got. The governance patterns presented (the risk classification matrix, the ethics statement, the Use Case Factory, vertical traceability) are not exotic. They are recognizable disciplines borrowed from enterprise systems, defense programs, and regulated industries. The fact that they feel new in AEC says more about where the industry currently stands than about the sophistication of the approach. The room's reaction was not "we could never do this." It was "why aren't we already doing this?" The answer, repeatedly, was that the organizational will, the funding model, and the contractual structures have not caught up to the technology.

The 116 stickies, the highest engagement of any session, tell the story. The industry is not skeptical of AI. It is hungry for a responsible way to adopt it. The governance-before-deployment message did not dampen enthusiasm. It channeled it. And the Use Case Factory gave the room something most AI conversations lack: a concrete, repeatable method for deciding what to do first, next, and later, based on dependency and readiness rather than excitement and executive pressure. The organizations that will lead AI adoption in AEC are probably not the ones moving fastest right now. They are the ones quietly building the operating conditions under which speed becomes safe, and that work is a lot less exciting than anyone wants it to be.

Session 2: The LeapThought Value Add

9:30 AM -- 10:30 AM

Speakers: Ratnakar Garikipati, Founder, Chairman & CEO, LeapThought Group

Ratnakar Garikipati founded LeapThought in 2011. The company has grown into a global enterprise with offices in Auckland, Sydney, Singapore, India, and the USA, serving customers across transportation, defense, utilities, AEC, healthcare, and property development.

LeapThought is an integrated digital delivery (IDD) and lifecycle intelligence company. Its flagship platform, FULCRUMHQ, connects BIM, GIS, and compliance workflows within a standards-based common data environment, enabling teams to structure and validate data across every phase of the asset lifecycle — from design and construction through manufacturing, assembly, asset registration, and handover.

What makes LeapThought distinctive in the AEC space is that it lets users stay in the systems they already know (GIS, asset management platforms, etc.) while FULCRUMHQ pulls the data together behind the scenes into an integrated, intelligent platform that anyone can use. With its embedded AI engine, the platform supports visualization, federation, and interrogation of BIM and GIS models directly in the browser.

LeapThought has been perfecting this approach for over 13 years, and their international portfolio demonstrates what's possible when digital twin and lifecycle management capabilities are deployed at scale. LeapThought builds next-generation digital delivery platforms for the built environment, unifying human and machine intelligence.

What Was Presented

This session explored how an AI pilot was used to validate potential value, and why open, trustworthy data is essential for scaling insight beyond a single building.

The session emphasized that owners are increasingly digitizing facilities with long-term operational goals in mind, not just construction-phase convenience. The LeapThought platform was presented as an approach that integrates with existing systems (GIS, Maximo) rather than replacing them.

As one attendee noted: ***"Leap Thought lets me stay in the system I know, GIS, Maximo etc. and behind the scenes it pulls it together in an integrated and smart platform, that anyone can use."*** That distinction matters. Most digital twin platforms ask organizations to abandon their existing workflows. LeapThought's approach met users where they already work, and that difference shaped the conversation that followed.

Board Key Comments:

1. **Trust Is Bankrupt and Nobody's Rebuilding It.** The stickies paint a picture of an industry running on unverified assumptions. ***"As-built models should be validated against real conditions, not just assumed accurate."*** Another stated, ***"If you can't trust the model, you can't automate anything downstream."*** And another stated, ***"Model trust should be quantifiable, with metrics for accuracy, completeness, and currency."*** The room wants

a **"model trust score"** that gets updated at milestones, a **"confidence index"** for model data, even a **"model reliability certification."** The sheer number of proposed solutions tells you how deep the problem runs, there is no shared definition of what makes a model trustworthy, and without one, every downstream use (fabrication, quantity takeoff, operations) is built on faith. **"We need to stop treating BIM as 3D drafting and start treating it as information management."** Lastly, **"We need to treat data handoffs like we treat material submittals, with review and approval."**

2. **The Field Is the Most Important User and the Least Included.** An attendee commented **"We need field teams involved in BIM planning from day one."** And another, **"Every subcontractor should have access to the model on their mobile device."** Lastly, **"Paper-based punch lists in 2026 should be a thing of the past."** The stickies describe an industry that builds models in offices and then expects field teams to trust them without having had any role in their creation. The field is where models meet reality. Until that changes, model trust will keep breaking at the jobsite trailer door.
3. **The Handoff Is Where Value Dies.** An attendee commented, **"The gap between design model and construction model is where most coordination failures happen."** Another stated, **"The handoff from design to construction is where the most data gets lost."** And another, **"Design intent vs. construction reality, that gap is where cost overruns live."** The stickies describe a one-way data flow: design pushes models downstream, construction remediates them, and operations get whatever survives. **"We need to close the feedback loop between construction, operations, and design."** Problem is there's no feedback loop. Design teams never hear what broke. Construction teams inherit problems they didn't create. And operations, the ultimate consumer of this data, gets the least usable version of it. One attendee stated, **"I want an AI that could be used to help with my coordination projects. In-lieu of coordination meetings at a specific time each week. It would be used by the client, the coordinator, the modelers, the trade, etc but is project specific. So instead of emails back n forth we all have a central agent to ask, give, and provide central information at any time. 24 hours a day."**
4. **Reality Capture Is Ready, but the Industry Isn't.** An attendee commented, **"The cost of reality capture has dropped 80% in 5 years. The excuses for not doing it are running out."** **"Drones + LiDAR + AI could automate progress verification on every project."** Another stated, **"Reality capture should be a line item in every project budget."** And another stated, **"The biggest barrier to reality capture isn't technology — it's willingness to act on what you find."** The technology for continuous model validation exists and is affordable. The room knows this. What's missing is the organizational willingness to make it standard practice, because acting on reality capture data means admitting the model was wrong, and that has contractual and liability implications nobody wants to own.
5. **Operations Is the Missing Stakeholder.** The industry builds models for designers and contractors. The owner, who will live with the building for 30+ years, gets whatever's left over **"If the model doesn't serve operations, we've failed the owner."** Another stated, **"The biggest ROI from digital twins comes when operations can query them for decisions."** Multiple stickies called for designing models for the operator, not the builder, but the current delivery structure provides no incentive to do so. **"Model data should flow into commissioning, not stop at substantial completion."** And lastly, **"As-built documentation is still treated as a project afterthought."**

Tensions and Gaps:

The central tension was not about technology. It was about who the models serve. Designers model for design. Contractors model for construction. But very few are modeling for the owner's long-term operational needs. Attendees described a chain of custody that breaks at every phase: as-built documentation is treated as a project afterthought, data that would make digital twins valuable in operations never makes it past the construction phase, and the people who test the model against the physical world (field teams) are the last ones consulted about what goes into it.

The session surfaced a model trust crisis that would echo through every remaining session of the day. Attendees called for a "model trust score" or "confidence index" that travels with the model through the project lifecycle, because without a shared way to measure reliability, everyone defaults to skepticism.

The moment a single RFI exposes a model error, field teams abandon the digital workflow entirely. One attendee proposed treating data handoffs like material submittals, with formal review and approval, a practical reframe that would give handoffs the same accountability structure the industry already applies to physical deliverables.

Reality capture came up repeatedly, not as an aspiration but as a frustration. The technology is mature. The costs have dropped dramatically. What hasn't kept pace is the willingness to act on what reality capture reveals. There is an institutional reluctance to create accountability by documenting what is actually happening in the field versus what was modeled.

The most persistent gap was the absence of operations. Multiple attendees pointed out that the entire reason digital models should exist, to serve the people who operate and maintain the building for decades, is the least represented perspective in how those models get planned, built, and delivered. Operations people need easy-to-use tools.

Industry Implication:

This session demonstrated that the value of digital delivery is realized in operations, not in design or construction. But the industry's incentive structure rewards the phases that create the data and penalizes the phase that needs to consume it. Models are built without defined limitations, handed off without validation reports, and consumed by teams that were never consulted about what they need.

The people creating the data don't bear the cost when it fails downstream. As one attendee wrote: ***"If owners saw the value of model data in operations, they'd fund BIM requirements differently."*** The funding problem and the operations problem are the same problem. Until that misalignment is corrected, through contract language, procurement requirements, and shared accountability, owners will continue to receive digital assets they cannot use.

Session 3: Broward County Aligns BIM Standard to NBIMS v4. New BEP and Digital Standards.

11:00 AM -- 12:00 PM

Speakers: Jeff Thompson, AIA, Assistant Director, Broward County Construction Management Division | Derek Carroll, LEED AP, Vice President of VDC & Technology Innovation, VDCO Tech

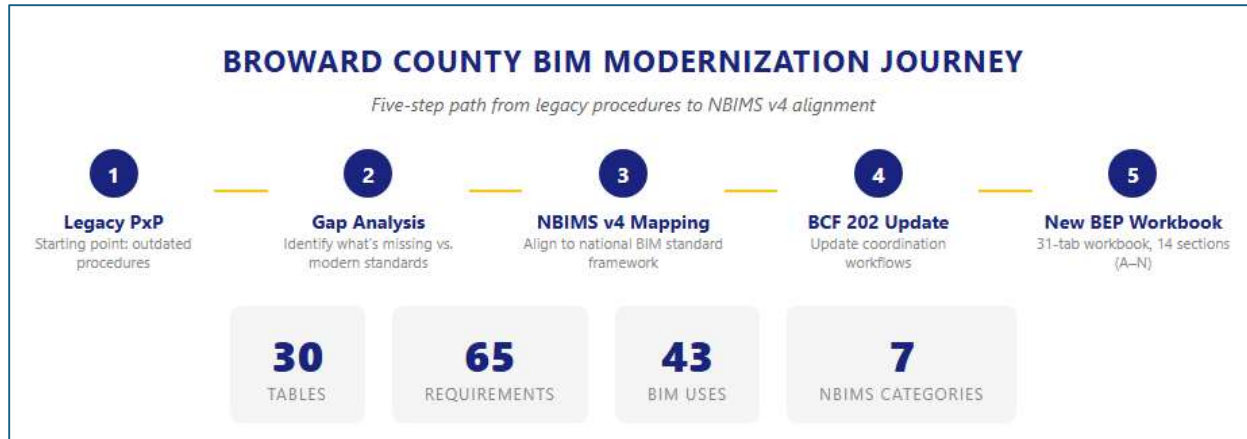
Jeff Thompson serves as Assistant Director of the Broward County Construction Management Division, which manages the County's capital improvement projects through innovative, sustainable building design and construction. A registered architect with degrees from Columbia University (M.Arch) and University of Florida (B.Arch), Thompson has held progressively senior roles at Broward County since 2006, including Acting Assistant Director and PM IV before assuming his current role in 2014. He previously served as an instructor at The Art Institute of Fort Lauderdale. Under his leadership, Broward County has become a model for how public owners can lead on digital delivery standards.

Derek Carroll has over 23 years of experience in the construction industry, beginning his career as a construction estimator where he developed deep expertise in cost estimating and scheduling, foundational skills he now integrates into advanced VDC workflows. At VDCO Tech, he has progressed from Director of Virtual Design & Construction to Vice President of VDC and now serves as Executive Vice President of Project Execution and Innovation. In this role, Derek leads both project delivery and the company's technology advancement, overseeing the integration of BIM, data, and emerging tools across all phases of work. In addition, Derek plays a key leadership role in VDCO's AI strategy, managing a hybrid workforce of both human professionals and AI-driven agents. He is responsible for ensuring that AI tools are effectively deployed, governed, and aligned with project goals, enhancing productivity, improving data quality, and supporting decision-making across teams. By bridging traditional construction expertise with cutting-edge technology, Derek is helping redefine how work gets delivered in a digitally enabled environment.

What Was Presented

Then and Now. The presentation laid out the contrast directly. Before this update, Broward County operated with a county-specific BIM PxP template that was partially aligned with the previous national standards. The County has now adopted an NBIMS v4-aligned BCF 202 contract document and BEP with 43 BIM Uses mapped across 7 national categories.

The Modernization Journey. Thompson and Carroll walked through the five-step process: starting from the legacy PxP template, conducting a gap analysis to identify misalignment with NBIMS v4, mapping county requirements to the national framework, updating the County's BCF 202 contract document (30 tables, 65 requirements, 43 BIM Uses), and creating a new 31-tab Excel workbook BEP template aligned to NBIMS v4.



43 BIM Uses Across 7 Categories. The new standard maps 43 BIM Uses into the seven NBIMS v4 categories: Gather, Generate, Analyze, Coordinate, Communicate, Realize, and Manage.

Of these, 17 are Required (mandatory on all Broward County projects), 18 are Preferred, and 8 are Optional. Required uses include Capture Existing Conditions, Design Authoring, Spatial Analysis, Site Utilization Planning, 3D Coordination and Clash Detection, Design Reviews, Design for Maintenance Review, Visualization, Owner Approvals, Constructability Review, QA/QC, As-Constructed Modeling, Facility Data Exchange, Record Modeling, Asset Management, and Space Management. Teams must mark Proceed Y/N and assign a Responsible Party for each use.

The BEP Template. The new 31-tab Excel workbook covers 14 BEP sections (A through N): BEP Overview and Mission, Project Information, Delivery Strategy and Deliverables, Key Project Contacts, Organizational Roles and Staffing, BIM Uses (43 uses with matrix), BIM Process Design, Model Progression and LOD, Facility Data Requirements (COBie), Collaboration Procedures, Quality Control, Technology Infrastructure, Model Structure, and Attachments and Approvals.

Content was added from the legacy County PxP (delivery strategy, model structure, worksets, model maintenance, accuracy tables, phase legends) while sections that were not applicable were removed (risk register, project certifications, hardware tables, UTM zone fields). Key technical standards include OmniClass product classification across 12 categories, IFC format plus native BIM dual deliverables, BIMForum LOD Specification compliance, and State Plane Coordinates for site placement.

Quality Control and Compliance. The presentation outlined a rigorous quality control (QC) framework structured around clearly defined, enforceable standards. At its core was a 30-item compliance checklist, verified at each phase milestone to ensure alignment with all BIM deliverable requirements.

Model integrity was reinforced through established model maintenance protocols, including central file auditing, disciplined workset management, and required pre-submission checks.

Accuracy expectations were defined through phase-specific tolerances by discipline and ultimately requiring full field verification for As-Constructed deliverables.

On the data side, the framework required COBie-compliant asset information for all equipment tied to preventative maintenance, routine servicing, or regulatory inspection, ensuring that model data directly supports downstream operations.

Critically, all requirements were written using enforceable language, “must,” “shall,” and “required” eliminating ambiguity across data compatibility, file formats, BIM deliverables, CAD standards, quality control, and facility data exchange. The result is a system designed not just for compliance, but for consistency, accountability, and operational readiness at handover.

Why This Matters for Industry. The session closed by connecting Broward County's work to broader industry impact: national alignment, standardized BIM Uses with clear responsibility assignments per phase and discipline, data interoperability, quality and accountability, and scalability.

Miro Board Key Comments:

- 1. The BEP Is Broken, and Everyone Knows It.** The stickies are ruthless about the current state of BIM Execution Plans: the BEP should be ***"a living document,"*** not ***"frozen at kickoff."*** It should ***"evolve with the project."*** Broward County's use of the NBIMS V4 spreadsheet format was noted, but the broader message was that BEPs are treated as checkbox documents, created at project start, filed, and never revisited. The room wants the BEP to become a governance instrument, not a compliance artifact. ***"BIM / VDC serves a broader audience, but our roles get filtered through contractual lines which creates the gaps in communication and accountability. This is why we have rework, misaligned expectations and lost efficiencies."***
- 2. Standards Must Scale.** An attendee from Broward County stated, ***"Don't charge me for LOD 300 restrooms, I will scream!"*** was the most quotable sticky in this session, and it captures a real frustration: standards are applied uniformly instead of proportionally. ***"Size the BEP to be appropriate to the project,"*** An attendee commented, ***"LOD specifications should be tied to specific model uses, not generic requirements,"*** Another stated, ***"BIM requirements should be proportional to project complexity and value."*** The room agreed that national standards provide baselines, but owners must right-size requirements to asset criticality.
- 3. Contract Language Is the Missing Enforcement Mechanism.** This session made the sharpest distinction between the BEP (collaboration tool) and the contract (enforcement mechanism). ***"BIM requirements without enforcement mechanisms are suggestions,"*** one attendee stated. ***"BIM should be included in the base scope, not as an add alternate,"*** Another commented, ***"We need consequences in the contract for not meeting BIM deliverables."*** The implication is that the industry has been putting BIM accountability in the wrong document. The BEP can't enforce what the contract doesn't require. ***"Let's be fair, subs often bid without knowing or being given full BIM Scope. Then when they get it, they are hammered over pricing"*** Another attendee stated that this might be changing. ***"We are working with Trades now to develop their BIM Change Order Agents so they can track where and when this process breaks."***

4. **The AI Clause Gap.** Multiple stickies flagged that current BIM standards and contracts don't address AI at all: **"The BEP should define how AI tools are permitted to interact with project models,"** This is a gap that will only widen. The room recognized that AI governance needs to be embedded in BIM execution planning, not treated as a separate concern. **"We need BIM contract language that addresses AI-generated content,"** Another attendee agreed. **"Contract language should address AI-generated model content and accountability."**
5. **The Owner Capability Question.** A thread that started in the Opening continued here with force: **"Owner-side BIM capability is the single biggest factor in whether BIM requirements are meaningful,"** Another attendee stated, **"Owners who invest in BIM capability get dramatically better results,"** The room sees a cycle, owners mandate BIM requirements they can't evaluate, contractors deliver the minimum, and the BEP becomes theater. **"Most owners don't know enough about BIM to enforce what they're asking for."**

Tensions and Gaps:

Session 3 surfaced a deep tension between standardization and practicality. Attendees acknowledged the need for BIM standards but pushed back against one-size-fits-all approaches. The disconnect between BIM specifications and what gets enforced was called the "1 problem." Multiple participants noted that subcontractors are often excluded from BIM planning and then blamed when data doesn't flow. The BEP, the document that is supposed to govern all of this, was described as one of the most underutilized tools in the industry.

Industry Implication:

Broward County's effort represents a model for how public owners can lead on digital standards with industry alignment, consensus building, and outreach to AEC partners.

But the session made clear that standards without enforcement are just suggestions. Contract language needs to specify model validation procedures and acceptance criteria. BIM requirements need to be part of the base scope, not an add-alternate. And trade partners need to be at the table when requirements are defined, not handed a document after the fact.

Broward County stated that they do enforce BIM deliverables on their contracts and that they require the model to be accurate at handover. That "what is modeled, is what is installed in field." They also stated that they make their models available at bidding, when applicable, and encouraged the trades to reach out to them directly to gain access to the models.

Session 4: Digital to Physical: Software Capabilities vs. the Practitioner's Reality

12:45 PM -- 1:45 PM

Speakers: Jason Reichel, Country Manager & Sales Director, Americas, Solibri, Inc.

Speaker: Luiz Felipe Conrado, DDS CADD / Autodesk

Jason Reichel is an AEC technology sales leader with an industry background as a practicing structural engineer. He serves as Country Manager and Sales Director for the Americas at Solibri, a leading provider of BIM quality assurance and quality control (QA/QC) software. He studied at Michigan Technological University and is based in San Diego, California.

Luiz Felipe Conrado is a BIM and MEP technology specialist focused on digital design workflows and advanced building systems modeling. At DDS-CAD, an Autodesk solution, he works closely with project teams and industry partners to implement intelligent MEP design tools that improve coordination, accuracy, and constructability. With experience supporting engineers, contractors, and consultants, Luiz helps bridge the gap between design intent and field execution through model-based processes, automation, and data-driven workflows. He is actively involved in advancing BIM adoption and integration across the AEC industry.

What Was Presented

This session highlighted the gap between what software platforms can do and how models are actually created, reviewed, and trusted in the field. The core message was direct: tools don't scale. People do. The session challenged the common assumption that better software automatically produces better outcomes and focused on the gap between software capability and practitioner readiness.

This session paired two complementary perspectives on the same problem: the gap between what digital tools can do and what actually reaches the field.

Luiz Felipe Conrado, BIM Director at Digital Drafting Systems (DDSCAD), opened with a three-column diagnostic framework titled "Digital to Physical: Where the Gap Lives," drawn from a decade of BIM consulting, training, and project coordination. On the left, he mapped seven software capabilities the industry already has: 3D BIM modeling in Revit, automated clash detection in Navisworks, cloud collaboration through BIM Collaborate Pro, open data exchange via IFC/BCF/COBie, Dynamo and Python automation, data-driven dashboards in Power BI, and model-driven documentation for 4D/5D planning.

On the right, he mapped what practitioners actually experience: field teams reverting to 2D PDFs, clashes found manually on-site, siloed teams working on outdated models, data re-entered manually at every phase transition, automation potential completely unrealized, documents disconnected from the model, and BIM adoption abandoned midway through projects.

Between them, Conrado identified six specific breakdown patterns he sees daily: no standardized templates; training that teaches buttons instead of workflows; data fidelity loss at

handoff where IFC exports lose metadata and LOD mismatches force manual re-entry; model ownership ambiguity that erodes trust on-site; no QA/QC gate before field delivery where quality is assumed rather than verified; and leadership that approves software licenses without investing in the people, process, or change management required to sustain adoption.

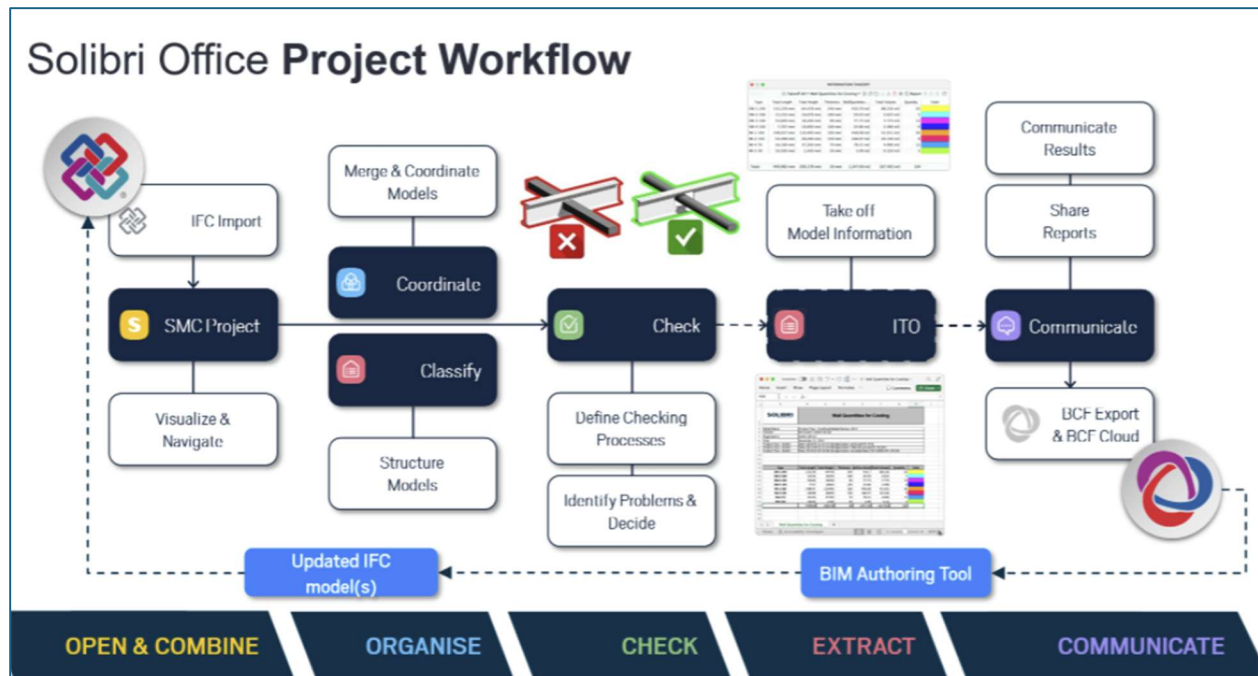


Jason Reichel, Country Manager and Sales Director for Solibri Americas, then demonstrated a direct response to Conrado's fifth breakdown, the missing QA/QC gate.

Reichel walked the room through Solibri's five-stage project workflow: Open & Combine (importing and federating IFC models), Organize (merging, coordinating, classifying, and structuring models across disciplines), Check (defining rule-based checking processes and identifying problems), Extract (information takeoff for quantities and costing from validated model data), and Communicate (sharing results and reports through BCF export and BCF Cloud).

The critical detail was the closed loop: issues identified during checking are exported via BCF back to the BIM authoring tool, which produces updated IFC models that re-enter the workflow. Model validation in this framework is not a one-time event. It is a continuous cycle of check, communicate, correct, and recheck.

Reichel's presentation made the case that automated, rule-based model checking is no longer optional. Without it, models carry hidden errors that propagate through coordination, fabrication, and operations unchallenged.



Together, the two presentations framed Session 4's central argument: the industry does not have a software problem. It has a process, training, and accountability problem that software alone cannot solve, but that software, properly implemented within a structured validation workflow, can help close.

Miro Board Key Comments:

1. **Model Trust Has a Shelf Life.** The single most powerful finding in this session: **"The model stops being trusted at the first RFI."** Said twice in different stickies, and reinforced by others, **"Per our group — models can lose trust at the first RFI."** This is devastating because it means model trust is binary and fragile. One error, one unresolved conflict, and the field abandons the digital workflow. The industry has no recovery mechanism for broken model trust.
2. **The Maker-User Divide.** An attendee commented, **"The disconnect between people who make models and people who use models is real."** Design teams model for their own deliverables. Contractors get those models after award and find they can't use them for construction. **"Design team models for design, construction models for construction — is anyone modeling for the owner?"** This three-way disconnect (designer → contractor → owner) is the structural flaw underneath the BIM Cleanup Tax identified in the synthesis.
3. **The Trades Are Left Holding the Bag.** Trades don't see models until after award, yet they're expected to coordinate in 3D. **"BIMs must be issued with the 2D PDFs for every BIM based project!! They need to be issued to Subs as well!"** The double exclamation points tell you the intensity. **"Trades don't want to release their shop drawings because they are their IP."** There's a trust problem running in both directions: GCs don't trust trades to model, and trades don't trust GCs with their intellectual property.
4. **Standards Without Training Are Wallpaper.** The session identified a disconnect between who writes standards and who lives them. **"BIM standards without training are just**

documents nobody reads. The call was for standards that are developed collaboratively by owners, designers, and contractors, not handed down from above. ***"Most BIM standards are written by people who don't use them daily."***

5. **The Measurement Void.** The room recognized that without measurement, improvement is impossible. ***"We need standard BIM KPIs that everyone measures,"*** You can't manage what you don't measure, and this industry doesn't measure BIM performance in any standardized way. ***"We need to track the cost of non-compliance with BIM standards,"*** and another attendee commented ***"The industry needs a BIM compliance dashboard."***

Tensions and Gaps:

The central tension was between software capability and human readiness. Attendees noted that models lose trust at the first RFI, a blunt assessment of how fragile model credibility is on real projects. The question of model ownership, IP protection, and who is responsible for what portion of the model surfaced repeatedly. There was also a significant gap around the liability of data exported from models for 5D (cost) applications. Attendees stated the potential is there, but the accountability framework is not.

Industry Implication:

This session confirmed that the industry's model trust problem is not about the software. It is about the process, the training, and the accountability frameworks around the software. Until model validation becomes a shared contractual obligation rather than a voluntary effort, the gap between what software can do and what practitioners actually deliver will persist.

Session 5: Where BIM / VDC Process Break

1:45 PM -- 2:45 PM

Speakers: Brian Skripac, DBIA, CM-BIM, Director of Virtual Design & Construction, Design Build Institute of America (DBIA) | Sean Doyle, CM-BIM, Assoc. DBIA, Director of Integrated Design, BOND Building Construction Inc.

Brian Skripac serves as DBIA's Director of Virtual Design & Construction, bringing decades of experience leading VDC processes for diverse projects across the nation. He has a background in architecture and holds DBIA and CM-BIM certifications. He is a recognized industry voice on VDC strategy, design-build project delivery, and construction technology innovation.

Sean Doyle joined BOND in 2012 and has risen through the ranks to establish BOND's Reality Capture services, the first of its kind for a construction manager in the Northeast, as a nationally recognized service provider for 3D laser scanning and existing conditions modeling. As Director of Integrated Design, he oversees both BOND's Reality Capture and design-build architectural services, creating seamless integration of solutions to address modern construction challenges including constructability, supply chain volatility, and inflation.

What Was Presented

Session 5 brought together two practitioners who have spent their careers at the intersection of contracts, delivery methods, and BIM/VDC execution. Brian Skripac, Director of Virtual Design & Construction at the Design-Build Institute of America, and Sean Doyle, Director of Integrated Design at BOND Building Construction, co-presented a framework built around three root causes of BIM/VDC process failure: Responsibility, Contract, and Process.

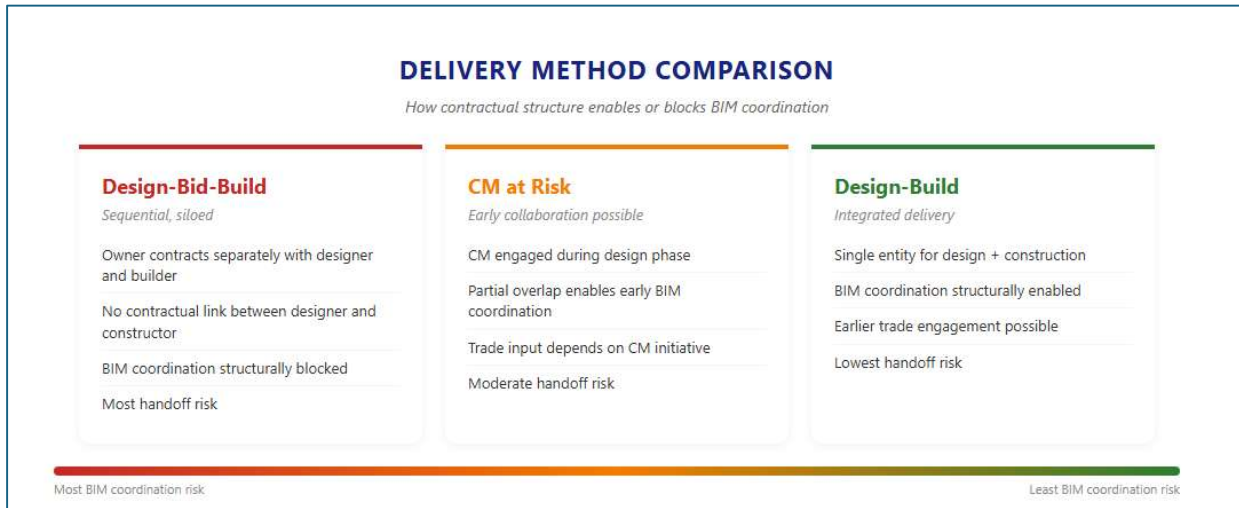
Skripac opened by mapping the structural reality that delivery method determines collaboration potential.

He placed three project delivery models side by side — Design-Bid-Build, CM at Risk, and Design-Build — to show how contractual relationships either enable or block BIM coordination.



In Design-Bid-Build, the Architect/Engineer and Contractor have no direct contractual relationship, making cross-phase model coordination structurally optional. In CM at Risk, a collaborative but non-contractual link exists between designer and builder which is better, but still fragile. In Design-Build, a single entity manages design, construction, trade partners, and suppliers under one contract, making integrated digital delivery structurally possible rather than aspirational.

The point was not that Design-Build is always the answer, but that the industry cannot expect integrated BIM outcomes from delivery methods that were designed to keep teams separated.



Skripac then presented a detailed LOD specification matrix based on the BIMForum 2022 LOD Specification, organized by CSI UniFormat 2010 building element classifications.

The matrix mapped both LOD and Model Element Author (MEA) across six project phases, from Concept through Program Aggregation, Validation, and Virtual Building Design on the design side, through Fabrication & Construction, and into Operations.

The level of specificity was the point: not a blanket LOD requirement applied to the whole project, but element-by-element definitions showing who authors what component, at what level of development, at which phase. The matrix is the tool that makes it possible to scale BIM requirements to project complexity and asset criticality, exactly what the room demanded when an attendee in Session 3 declared **"Don't charge me for LOD 300 restrooms, I will scream!"**

BIM/VDC has to be a core value that your company embraces and finds beneficial thru design and construction final product. The D/B process makes this possible.

❤️ 1

Doyle followed with BOND's real-world organizational chart for a Design-Build project, showing how BIM/VDC functions as a core leadership role rather than a support task. Under the Design-Build Project Manager, six functional lanes operate in parallel: Design Professional(s) of Record, Design Integration Manager, VDC Project Leader, Estimating Team Leader, Construction Manager, and Construction Superintendent.

The VDC Project Leader is the only role that interfaces with Design Consultants, Trade Partners, and Suppliers simultaneously, spanning the full project delivery chain. This is what it looks like when BIM/VDC is resourced as a peer to design,

estimating, and field supervision instead of buried underneath one of them.

The session culminated in the Responsibility-Contract-Process framework. Under Responsibility, the presenters challenged firms to answer whether their BIM/VDC staff is billable or overhead? Whether corporate BIM leadership connects to project-specific execution? And whether all team members, not just BIM coordinators, are held accountable for model-based deliverables?

Under Contract, they argued that different delivery methods breed different collaborative behaviors; that BIM/VDC deliverables must become contractually defined with clear ownership; and that traditionally technology-focused documents, like the BIM Execution Plan and LOD Matrix, must become collaboration instruments rather than compliance artifacts.

Under Process, they called for project delivery and technology to bridge the handover gaps that persist across the industry, for early constructability input during design, for blurring the lines between construction documents and shop drawings, and for accountability for model and data quality in accordance with owner and project expectations.



Miro Board Key Comments:

1. **BIM Fails When It's a Deliverable Instead of a Process.** This was the session's defining insight. ***"BIM fails when it's treated as a deliverable instead of a process."*** The stickies catalogue a pattern: BIM is scoped, budgeted, and scheduled as a thing to produce rather than a way of working. When the construction schedule outruns the BIM schedule ***"The BIMs became useless to the field teams."*** When BIM coordination starts after construction begins, when the BEP is ***"created and then never referenced again"*** the root cause is the same. BIM was treated as output, not method.
2. **Accountability Evaporates at the Handoff.** Every phase transition is an accountability gap. ***"The handoff between design and construction is where accountability disappears."*** Another attendee commented, ***"The biggest handoff failure is when design***

data doesn't flow to operations. The Responsibility Matrix in the BEP emerged as the proposed fix, but only if it's tied to enforceable contract terms. ***"BIM fails when accountability for model quality stops at substantial completion."***

3. **The Cost of Defensiveness.** The room described an industry where BIM is used defensively, as a bid strategy, a compliance checkbox, or a liability shield, rather than as a collaborative tool. ***"When firms look at BIM from a defensive perspective and not a collaborative effort causes the process to break."*** Another stated, ***"The bait and switch: proposed BIM but then not used on a project because of cost."*** Another addressed the danger of saying you do BIM and not understanding what that really means. ***"Contractors who win a job with BIM requirements but then don't have the knowledge to deliver is a big issue that typically reveals itself only at the close-out phase of the project."***
4. **The Resourcing Lie.** The industry chronically under resources BIM delivery. ***"The biggest failure is when BIM requirements are included in the contract but not in the budget."*** It shows up in contracts but not in budgets, in scopes but not in staffing plans. ***"Process breaks when model management isn't resourced properly."*** The room connected this directly to the observation that BIM managers often lack the authority to enforce the standards they're responsible for. ***"BIM success requires executive sponsorship, not just team effort."***
5. **Learning Is Not a Weakness.** A more human theme surfaced here: ***"Reminding people that it is ok that they don't know everything about everything! Establishing a mindset and culture around 'learning is not a weakness.'"*** Combined with ***"BIM success requires investment in people, not just technology"*** and ***"BIM success requires a culture of continuous improvement,"*** This session recognized that process failures are ultimately cultural failures. The tools work. The processes work. What breaks is the willingness to learn, adapt, and be transparent about gaps.

Tensions and Gaps:

Session 5 was the most operationally raw session of the day. The "bait and switch" comment captured a pattern that multiple attendees confirmed: firms propose BIM in their bids to win work, then cut it from scope once awarded. The scheduling misalignment, BIM schedules lagging construction schedules, was identified as a root cause of field teams abandoning models entirely. And the employee retention issue connected digital delivery failure to broader workforce challenges: when the person who knows the process leaves, the process leaves with them.

Industry Implication:

This session made one thing undeniable: BIM and VDC process breakdowns are systemic, not incidental. They stem from contracts that don't align scope with capability, organizations that don't invest in knowledge retention, and a procurement system that rewards the lowest bidder rather than the most capable team.

Until BIM coordination is treated as a project management function, with authority, budget, and accountability, the same patterns will repeat.

Session 6: What AI Can (and Can't) Automate in BIM Today

3:00 PM -- 3:45 PM

Speaker: Keshav Sharma, Co-Founder & CEO, AuGrade

Speaker: Jon Sage, President, 3DCADCO

Keshav Sharma co-founded AuGrade in 2020, a technology firm specializing in augmented reality (AR) and virtual reality (VR) solutions with a mission to augment human capabilities by automating design and engineering processes through an AI-driven spatial computing platform. The company operates from Mumbai and San Francisco.

Jon Sage is the President and founding principal of 3DCADCO, Inc., an architectural technology consulting firm based in Florida's Miami Design District. 3DCADCO is the official distributor of Graphisoft Archicad for Florida and the Caribbean, and a specialized provider of BIM technology, software, and consulting services for the AEC industry. Founded in 1999, the firm focuses on helping organizations transition from traditional 2D drafting and generic 3D modeling to advanced BIM 4D and 5D workflows.

What Was Presented

Session 6 delivered the most technically grounded assessment of AI's actual capabilities in BIM workflows heard at the Summit. Keshav Sharma, CEO and Founder of AuGrade Inc., presented "What AI Can (and Can't) Automate in BIM Today" a session built on the premise that the problem is not whether AI is powerful, but that most BIM workflows are not machine-ready.

Sharma opened with the construction industry's three persistent pain points: design conflicts that surface late because specs contradict drawings and 2D clashes with 3D; manual processes that consume labor-intensive hours across BIM, permitting, and tracking; and zero visibility into how changes ripple across cost, schedule, and compliance.

He then introduced AuGrade's Dreamspace AI platform, which addresses these through three capabilities: Automated Risk Detection that flags compliance issues and design conflicts; Generative Design that converts unstructured data into LOD 200 BIM models with quantity takeoffs, cost estimates, schedules, and permit checks; and Predictive Project Intelligence that provides real-time impact prediction for every change across design, cost, schedule, and permit readiness.

But the session's real value was not the product demonstration, it was Sharma's unflinching honesty about where AI breaks down.

He presented four BIM blind spots that generic AI cannot see:

1. LOD mismatches where AI cannot determine whether a wall needs LOD 300 for design or LOD 400 for fabrication because it sees geometry rather than project phase requirement;
2. False positive clashes where AI flags issues but cannot distinguish real cost and time impacts from acceptable conditions like embedded plates or allowable interference;

3. Federated model gaps where models from different disciplines that do not share the same origin point or units produce invisible reconciliation failures; and
4. Geometry versus design intent where AI reads a four-inch pipe as geometry without knowing it is a fire suppression main that code requires within eighteen inches of ceiling.

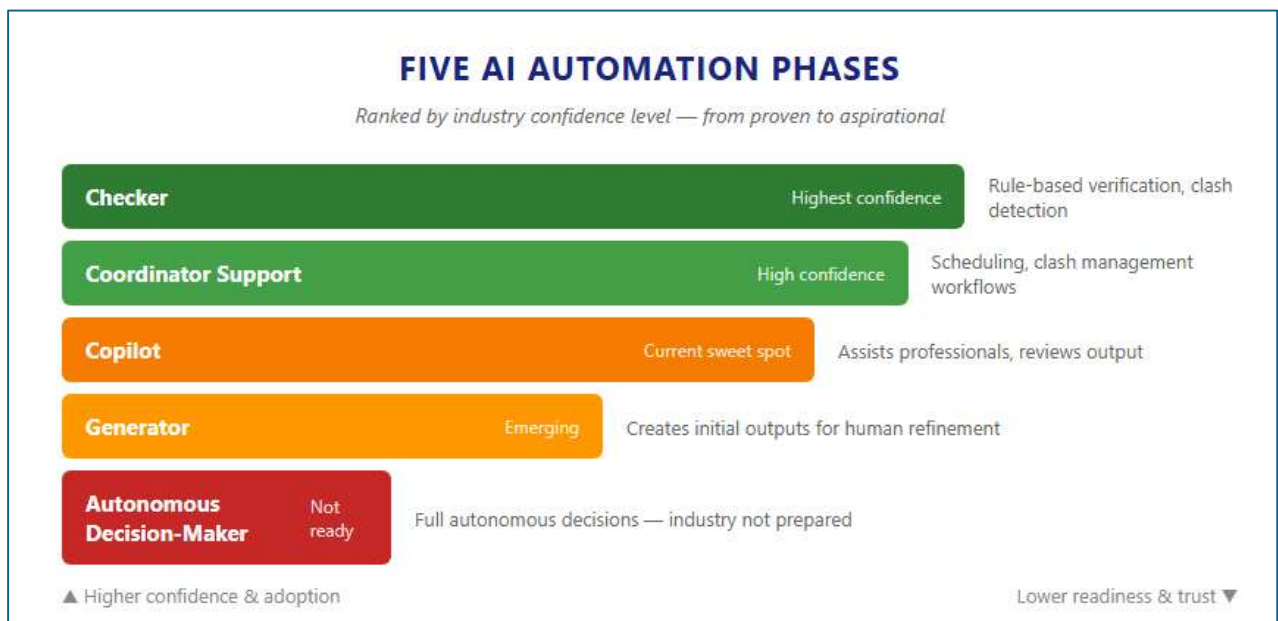
Sharma then introduced a framework the room immediately adopted: think spectrum, not binary.

He mapped five BIM functions across a continuum from "AI Handles It" to "Human Handles It." Clash detection on the AI end, QTO and cost estimation mostly AI, code review and audit shared, spec interpretation mostly human, and design intent fully human.



His key argument was that the most valuable AI deployment today is as a copilot, surfacing flags, generating options, and checking consistency while humans retain judgment on ambiguous decisions.

He ranked five automation phases by confidence level: Checker at the top as highest confidence, followed by Coordinator Support, then Copilot as the current sweet spot, Generator below that, and Autonomous Decision-Maker at the bottom as not ready for most BIM tasks.



He reinforced this with a realistic six-stage AI-in-BIM workflow: Ingest (drawings, models, documents), AI Analysis (checking, extraction, comparison, flagging), Flagged for Review (prioritized action items), Human Decision (approve, modify, or reject), Model Update (push changes), and Approved Output. Three rules governed the workflow: AI is strong at pattern matching, checking, extraction, and classification; humans are essential for ambiguous calls, context, risk sensitivity, and final decisions; and data quality determines success because output is only as good as input.

Sharma also confronted why general-purpose large language models fail in construction:

1. Tasks are on-site and cannot be solved by models that only process digital-first work;
2. The industry relies on too many disconnected point solutions;
3. Generic agents cannot validate constructability or navigate field-specific contexts; and
4. Regulatory environments demand strict clarity that AI's push for efficiency cannot yet satisfy.

Jon Sage, President and founding principal of 3DCADCO started by saying Archicad was first to create BIM. Graphisoft was founded by Gábor Bojár in 1982 in Budapest, Hungary, and development of Archicad began that same year on the Apple Lisa.

Steve Jobs was so impressed by what Bojár was building that he personally sent them an Apple computer to support the development. Archicad launched in 1987 as the "Virtual Building" concept, the idea that an architect works inside a complete digital building model rather than drawing individual lines and sheets. It was the first CAD product on a personal computer capable of creating both 2D and 3D geometry simultaneously, and the first to store large amounts of information within the 3D model itself.

The term "BIM" as we use it today didn't become industry standard until around 2003. But the concept, a data-rich 3D model that serves as a single source of truth, that was Graphisoft's Virtual Building, started it all by running on personal computers sixteen years earlier.

Sage then delivered a live software demonstration that shifted the room's energy from conceptual discussion to hands-on proof.

Archicad is one of the longest-running BIM platforms in the industry, and its track record speaks for itself: it has been voted BIM Product of the Year at the Construction Computing Awards for eleven consecutive years, won the Architizer A+ Awards Popular Choice in Software and Digital Tools, and received the Architects' Darling gold award three years running in the Architect Software category.

Rather than presenting slides, Sage opened models in real time, showcasing the platform's speed, responsiveness, and intuitive interface capabilities that have made Archicad a preferred tool among architects and design professionals who need to move between 3D modeling and automatically coordinated 2D documentation without friction.

The live demo highlighted several of Archicad's core strengths: parametric design with centralized content libraries, real-time cloud collaboration through BIMcloud, model-driven

documentation that generates sheets, schedules, and quantities directly from the model, and the award-winning BIMx presentation platform that brings a full BIM experience to all stakeholders, from the design studio to the client's office to the construction site.

Sage also demonstrated how quickly Archicad opens and navigates complex models, a practical advantage that resonated with a room full of practitioners who have experienced the frustration of slow model loading and cumbersome interfaces on real projects. The latest version, Archicad 29, introduces a built-in AI Assistant capable of intelligent model queries, element filtering by criteria, building code guidance, and AI-powered design visualization, positioning the platform at the intersection of traditional BIM authoring and the emerging AI capabilities discussed throughout the Summit.

What gave Sage's demonstration particular weight in the room was Archicad's native commitment to openBIM.

The platform supports buildingSMART-defined open standards, IFC, BCF, and IDS, and holds buildingSMART certification for IFC4 Architectural Reference Exchange. For projects involving multiple software platforms, Archicad provides bi-directional IFC exchange with Revit through a dedicated add-in, as well as RFA and RVT geometry import for teams not yet working in IFC workflows.

This interoperability was not an abstract talking point. It became immediately relevant when an attendee disclosed that one of Broward County's departments uses Archicad while others use different platforms.

For a County that is actively developing BIM standards and mandating digital deliverables across its capital programs, the ability to exchange model data across software platforms through open standards is not a convenience, it is a requirement.

Sage's demonstration made the case that openBIM interoperability is achievable today, and that Archicad's native IFC support positions it as a platform that can participate in any multi-vendor BIM environment without forcing the entire project team onto a single ecosystem.

Miro Board Key Comments:

1. **The Governance Maturity Gap.** Attendees were impressed with both tools and discussed how they research solutions. ***"The gap between AI experimentation and trusted deployment is mainly about governance, trust, and accountability frameworks that most firms haven't built yet."*** McCarthy's approach, a dedicated implementation team that researches tools, weighs risk/reward, and listens to users, was presented as a successful model. The contrast however was stark: most firms are experimenting without structure. ***"I have not automated BIM Tasks with AI but have schedule automations in other capacities. Automating modeling efforts appear to be a game changer and can save considerable time if the right parameters and stop gaps are in place. Human interaction is still needed for validation and QC."*** Shannon Lightfoot McCarthy Building Companies.
2. **Transparency as Strategy.** VDCO Tech represented a position that transparency about AI use is a competitive advantage, not a liability. ***"We are 100% transparent with our AI use and document expectations, performance, and results"*** Another comment from their

firm, **"We don't assume data or deliverables are good. We define what 'good' means to our company. We document it and then we validate against it. This works for both our AI Employees and our Human Employees. Same process!"** Another attendee commented, **"We have an AI use Guidelines posted on our web page and share it with all clients upfront."** Attendees felt that if clients know you use AI and you can document how, trust increases rather than decreases.

Tensions and Gaps:

The Miro board was paused during this session as it was being technically scrubbed for closing sessions and performance. However, the contributions that were made were among the most operationally specific of the day. The concept of treating AI tools with the same quality assurance framework as human employees, defining "good," documenting expectations, and validating outputs, represents a mature approach that most firms have not yet adopted.

Industry Implication:

The firms leading in AI adoption are not the ones using the most tools. They are the ones that have built internal structures for evaluating, governing, and holding AI accountable. McCarthy shared their approach as well, dedicated implementation teams that listen to users, weigh risk/reward, and adjust. This approach to AI is a model the broader industry should study.

AI governance is not about slowing innovation. It is about making innovations trustworthy.

Major problems from Architect's perspective: Liability exposure, copyright and authorship, people with access to BIM stealing from Architect's model.

Also models with different purposes should have different data.

The breakdown/ failure begins the second you start a project because humans make errors. I think the question is less having a breakdown vs. preventing and managing breakdowns.

Miro Board Comments

Session 7: The Dimension Dilemma: How an Owner and Contractor are Breaking Old Habits to Build Trust in BIM

3:45 PM -- 4:45 PM

Speaker: Shannon Lightfoot, Regional Director, Virtual Design & Construction, McCarthy Building Companies, Inc.

Speaker: Liliana Martinez, Senior Manager Design Technology, Port of Seattle

Shannon Lightfoot oversees the implementation of VDC initiatives at McCarthy Building Companies, focusing on enhancing project execution and driving value through technology. His responsibilities include managing VDC processes across divisions, supporting continuous improvement in VDC methodologies, and exploring emerging technologies to advance construction practices. He has been instrumental in developing and deploying BIM strategies, guiding teams in 3D model creation for coordination and constructability, and training field personnel on effective integration of VDC tools.

Liliana Martinez, R.A., AIA, NCARB, is a design technology leader at the Port of Seattle, where she serves as Senior Manager of Design Technology. In this role, she leads the development and implementation of BIM, digital delivery standards, and technology strategies that support capital programs across aviation and maritime assets.

With a background in architecture and a strong focus on innovation, Liliana works at the intersection of design, construction, and operations, advancing model-based workflows, data integration, and lifecycle asset management. She collaborates with owners, consultants, and contractors to improve coordination, standardization, and the usability of digital deliverables across complex infrastructure projects.

Liliana is actively engaged in driving industry-wide BIM adoption and helping organizations transition from traditional design processes to data-informed, technology-enabled delivery models. Her leadership supports the Port's broader vision of creating a connected, efficient, and sustainable digital ecosystem across its facilities.

What Was Presented

Session 7 presented the Summit's most definitive framework for solving the model trust problem that had surfaced in every preceding session.

Shannon Lightfoot, Director of Virtual Design & Construction at McCarthy Building Companies, delivered the presentation while continuously validating his points against the owner's perspective by turning to Liliana Martinez, Senior Manager of Design Technology at the Port of Seattle, asking whether she agreed and drawing out her experience managing BIM and digital delivery standards across aviation and maritime capital programs. The result was not a lecture but a live dialogue between a contractor who builds trust systems and an owner who depends on them.

Lightfoot opened with a premise that reframed the entire day's conversation: trust in BIM is not a feeling, it is a system that is engineered. He argued that maintaining trust in the model matters

more now than ever because of downstream uses — when models feed fabrication, quantity takeoff, facility management, and AI-driven analysis, the cost of inaccuracy compounds at every phase boundary. He then mapped where trust quietly breaks across five project stages — Design, Coordination, Fabrication, Installation, and Handover — making the case that trust does not fail in a single dramatic moment but erodes gradually at each transition point, often without anyone noticing until the damage is done.

The session's centerpiece was Lightfoot's BIM Dimensional Trust Framework: The Four Pillars of Trust in BIM, structured as a shift from Assumed Trust to Engineered Trust.

The first pillar, Governance, addresses who owns what and when, establishing clear BIM/VDC roles and responsibilities, treating Execution Plans as contractual documents rather than compliance artifacts, and defining explicit sign-off points for models at each phase.

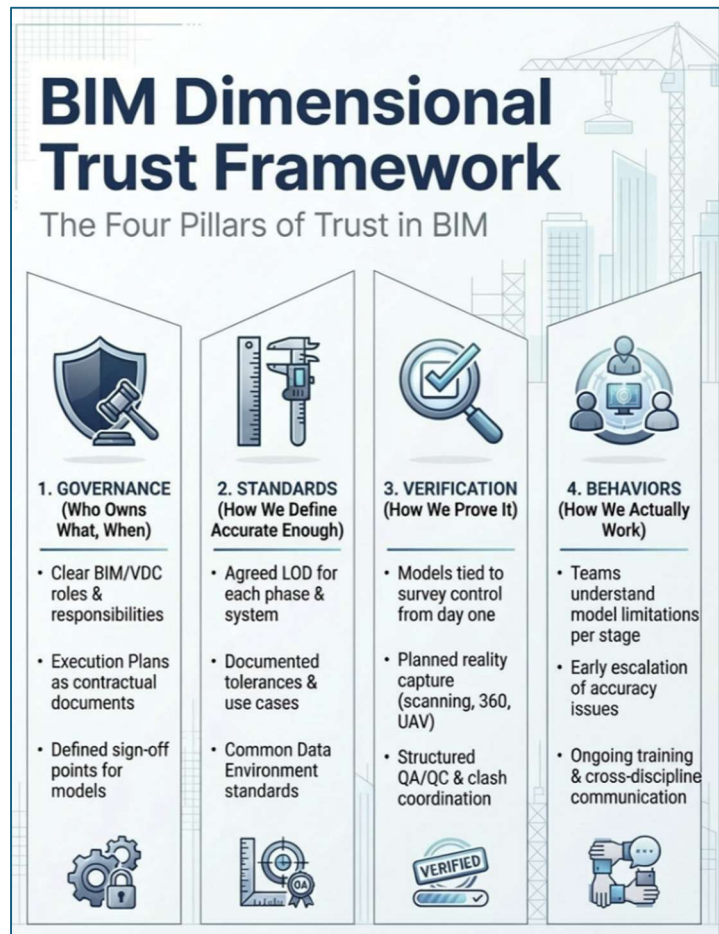
The second pillar, Standards, defines what "accurate enough" means, agreeing on LOD for each phase and building system, documenting tolerances and use cases, and establishing Common Data Environment standards.

The third pillar, Verification, answers how accuracy is proved, tying models to survey control from day one, planning reality capture through scanning, 360-degree photography, and UAS at defined milestones, and structuring QA/QC and clash coordination as systematic processes rather than ad hoc checks.

The fourth pillar, Behaviors, addresses how teams work. Ensuring teams understand model limitations at each stage, establishing early escalation protocols for accuracy issues, and investing in ongoing training and cross-discipline communication.

Lightfoot distilled the framework into a five-step operational sequence: Define what accurate means, assign who is responsible, verify how it is checked, measure how it is tracked, and enforce how accountability is held.

Martinez validated each step from the owner's seat, confirming that the Port of Seattle's experience managing complex infrastructure programs across aviation and maritime assets mirrors the same trust breakdown pattern, that without governance, standards, verification, and



the right team behaviors, even well-modeled projects produce deliverables that owners cannot operationally consume.



The session's power lay in the pairing. Lightfoot brought the contractor's perspective, McCarthy's internal BIM standards, their standard of care for trade partner expectations, and the practical reality of building trust systems on active projects.

Martinez brought the owner's perspective. The Port of Seattle's work at the intersection of design, construction, and operations, advancing model-based workflows, data integration, and lifecycle asset management across capital programs.

Together, they demonstrated that the trust problem is not one-sided. It requires both the builder and the owner to engineer trust into the process from the start, rather than assuming it will survive the handoff.

Miro Board Key Comments:

1. **Begin with the End in Mind.** The attendees had a lot to say about model trust and workflows in this session's breakouts. ***"Trust breaks down if we as contractors don't begin with the end in mind. Planning for the end deliverable is most important at the onset of a project to make sure standards, workflows, and data are all aligned."*** Another attendee stated that ***"Coordination is not validation."*** The session talked about a fundamental principle: planning for the end deliverable at the onset of a project is where trust is built or lost. ***"If no one is accountable for accuracy, the model is just a suggestion,"*** another attendee stated. ***"McCarthy we have a standard of care as it relates to expectations from the trade partners. We've seen the greatest success when owners define requirements for the design partners, especially on non-design build projects."***
2. **AI Content Needs Its Own Accountability Layer.** The room was clear: AI outputs can't be treated the same as human outputs. ***"AI-generated model content should be flagged and tracked separately from human-generated content."*** They need separate tracking, separate validation, and separate liability frameworks. ***"We need to define who is liable when AI-generated content causes a project failure."*** ***"AI governance should include audit trails for every AI-assisted decision."*** This is new territory and the industry has no established practice.
3. **The Human-in-the-Loop Is Non-Negotiable.** Attendees stated, ***"AI governance should require human review for all safety-critical model elements."*** The session drew a bright line: AI can assist, but for safety-critical decisions, human review remains mandatory. ***"We***

need to define what happens when AI outputs conflict with human judgment. The nuance is in the distinction between ***"AI tools that assist and AI agents that act autonomously"*** the governance frameworks for each are fundamentally different.

4. **The Collaborative Standards Imperative.** This echoes Session 1's democratization theme. ***"AI governance in AEC should be developed with input from all stakeholders, not just technology vendors."*** The room fears that AI governance will be vendor-driven rather than industry-driven, creating proprietary frameworks that fragment rather than unite.
5. ***"The industry needs collaborative development of AI standards — not proprietary ones."***
6. **Embed Governance in Existing Instruments.** This is a practical and important insight. If AI governance gets siloed into its own document, it'll suffer the same fate as BEPs that are written and filed. ***"AI governance should be embedded in the BEP, not a separate document."*** Embedding AI governance in the BEP and tying it to contract language creates a single accountability framework instead of parallel ones.

Tensions and Gaps:

The Miro board was paused during this session as it was being technically scrubbed for closing sessions and performance. The core tension was between coordination and validation, two activities that are often conflated but serve fundamentally different purposes.

Coordination identifies conflicts.

Validation confirms accuracy.

Without defined accuracy tolerances, dimensional sign-off milestones, and clear accountability for who is responsible when the model does not match the field, coordination becomes an exercise without teeth.

Industry Implication:

This session exposed a structural gap in how the industry treats model accuracy:

- a. It is expected but not defined,
- b. Required but not measured, and
- c. Assumed but not verified.

The concept of a "dimensional sign-off milestone", with defined accuracy tolerances and clear accountability, represents a practical reform that could be implemented immediately through contract language and BEP requirements.

Closing Session: It's the AI Agents' Turn

4:45 PM -- 5:00 PM

Facilitated Closing: Humans in the Loop & AI Agent Generated

The closing session was designed to synthesize the day's lessons live, using both human facilitators and an AI tool that read all Miro board inputs from Sessions 1-7 and generated preliminary findings for the Reality Loop Report. Human facilitators read the output in real time and presented it to the room.

The following text was generated by an AI agent during the closing session, read aloud by the facilitator, and validated by the audience. It synthesizes the day's discussions across all sessions.

Live Synthesis Narrative - AI Generated Close (No human edits)

"This morning I asked you to put your phones in a basket and most of you hid in the bathroom instead. So here's the question: did it work?"

The day surfaced something I didn't expect. Legal and IT departments block AI adoption not because of identified risks, but because the new capabilities do not fit legacy approval frameworks. One Broward County attendee said their organization has an AI policy under development but current restrictions suspend use for those who did not adopt early, and multiple people across the room agreed that the red/amber/green data classification model provides the clearest path forward.

That's boots on the ground meeting brains in the cloud, the people doing the work know what they need, and the systems built to protect them are now blocking them. The agreement we landed on was simple: data governance must precede AI deployment, human review remains non-negotiable, and AI is a force multiplier for experts with one attendee reporting 30 percent time savings with careful back-checking.

But the room also put a harder question on the table: who should own enterprise BIM and AI strategy, business leadership or technical practitioners? No consensus. Some of you said executive-level champions must mandate from the C-suite because at the end of the day the business and their budgets drive what they'll attempt to do. Others said BIM leadership and Design Technology Groups have the ability to influence decisions with multiple people owning BIM across teams to allow standards to evolve organically. That tension didn't resolve, and that's honest.

The BIM handoff problem showed up everywhere. In Sessions 2 and 5 we heard the term BIM Cleanup Tax, the cost of remediating design models not prepared for downstream construction use because upstream teams model for their own phase deliverables with no accountability for what happens next. One attendee asked any plans to have just one model instead of separate design and construction models, and someone else said this Owner is looking for one set of models delivered with all of the data.

But Broward County's current standards require a Design Model and a Construction Model as separate deliverables, and multiple people noted that models with different purposes should have different data. We didn't settle that debate either.

What we did agree on was that some owners are mandating BIM deliverables they cannot operationally consume, multiple sessions surfaced examples of LOD 400 models required at closeout without the training, tools, or facility management workflows to use them, creating compliance theater that raises project costs without delivering operational value.

One Broward County attendee stated don't charge me for LOD 300 restrooms, I will scream, and the room agreed that standards must scale to project complexity and asset criticality. The commitments that came out of these sessions were concrete: the room agreed to withhold payment until all BIM deliverables meet contractual acceptance criteria, design and construction teams will require BIM models to be issued to subcontractors with every PDF drawing set, and firms will establish Responsibility Matrices in the BIM Execution Plan to define cross-discipline accountability at every phase handoff.

Session 4 named the field trust problem plainly. The field does not trust the model until it proves itself wrong, and the first RFI often ends that trust. One attendee proposed training superintendents and other field staff on BIM navigation tools, Navisworks at a minimum, so they can speak intelligently about BIM to the subs and reduce change orders and mistakes. Another pointed out that subcontractors bid from PDFs and receive models only after award, forcing coordination to become re-design without having modeled pricing assumptions.

Someone wrote BIMs must be issued with the 2D PDFs for every BIM based project and they need to be issued to Subs as well. That's execution mattering more than intent. The room committed to fixing the procurement gap, but we also surfaced a measurement problem no one has solved: what percentage of field-reported model errors result in teams abandoning digital workflows entirely? We know the threshold exists. We just don't measure it.

You guys are gonna start where I took months and years to do. I meant that this morning, and I mean it now. The question I asked at the opening was whether you need a Scott, whether you'd leave this room wanting to find your own AI implementation partner, your own boots-on-the-ground-brains-in-the-cloud thinking. The stickies on these boards tell me the answer is yes, but the shape of that partnership is still unresolved.

One attendee asked is anyone seeing adoption of IPD project delivery, seems to have faded away, why? No one in the session offered evidence of active IPD use.

Another said BIM/VDC has to be a core value that your company embraces and finds beneficial through design and construction final product, and the design-build process makes this possible.

The metrics category surfaced the hardest gaps: we cannot yet answer how often a BIM requirement becomes contractually binding post-award versus being specified at RFP stage, what the remediation cost is when design models require rework to prepare them for construction use, or how many owner-mandated LOD 400 closeout models are operationally consumed by facility management teams versus archived.

Those are the questions the Reality Loop is designed to answer. What we have on these boards is the first page of the Reality Loop Report, and in the next few weeks we will refine it into something the whole industry can read." 100% AI Generated

How the AI Agents Worked

Synthesis Agent Results (Zone 6)

The AI synthesis agent categorized findings from all sessions into four categories, placed as color-coded sticky notes. Below are the agents' raw findings.

AI SYNTHESIS AGENT — CATEGORY LEGEND

Four-color coding system used for the closing session synthesis

Cross-Session Themes

Patterns that appeared across multiple sessions

Areas of Consensus

Points where the room broadly agreed

Unresolved Differences

Open debates and competing perspectives

Concrete Commitments

Specific 30/90/365-day action commitments

Cross-Session Themes (Green Sticky Notes)

1. **Subcontractors bid from PDFs and receive models only after award — coordination becomes re-design.** The industry's dominant procurement pattern awards trades based on 2D documents, then expects them to coordinate in 3D without having modeled pricing assumptions, forcing costly rework that gets framed as a BIM failure rather than a delivery-method mismatch. *Identified in S4, S5*
2. **Owners are mandating BIM deliverables they cannot operationally consume.** Multiple sessions surfaced examples of owners requiring LOD 400 models at closeout without the training, tools, or facility management workflows to use them, creating compliance theater that raises project costs without delivering operational value. *Identified in S2, S3, S5*
3. **The field does not trust the model until it proves itself wrong — and the first RFI often ends that trust.** Attendees across sessions reported that field teams abandon digital workflows the moment a single model error surfaces, and trust is only rebuilt when compliance checks prove accuracy. *Identified in S4, S5, S7*
4. **BIM handoff failures are systemic, not contractual — the work is designed for one phase and abandoned at the next.** Design models handed to construction teams

require extensive remediation (termed the "BIM Cleanup Tax"), and no accountability structure exists for downstream usability. *Identified in S2, S5*

5. **The AI deployment bottleneck is not technology — it is internal governance paralysis.** Across multiple sessions, attendees reported that legal and IT departments block AI adoption not because of identified risks but because new capabilities don't fit legacy approval frameworks. *Identified in Opening, S1, S6*

Areas of Consensus (Blue Sticky Notes)

1. **Standards must scale to project complexity** — mandating LOD 300 restrooms on a parks project wastes money. The room agreed national standards provide essential baselines, but owners must right size requirements to asset criticality. *Identified in S3, S5*
2. **The BIM Execution Plan is a collaboration tool, not an enforcement mechanism** — contracts must carry accountability. Attendees agreed that BEPs submitted at project start and never revisited fail to drive compliance, and that enforceable BIM requirements belong in contract language with milestone-based acceptance gates. *Identified in S3, S5*
3. **Data governance must precede AI deployment** — red/amber/green classification frameworks provide the necessary guardrails. Multiple sessions adopted the risk classification model presented in S1 as the clearest path to safe, proactive AI use. *Identified in S1, S6, S7*

Unresolved Differences (Red Sticky Notes)

1. **Is integrated project delivery (IPD) the solution to BIM handoff failures, or has the industry moved past it?** One side advocated design-build; the other asked why IPD has faded away. No consensus reached. *S5*
2. **Should design and construction share one federated model or maintain separate phase-specific models?** Broward County requires separate models; others argued for a single model with all data. Debate did not close. *S3, S4*
3. **Who should own enterprise BIM and AI strategy — business leadership or technical practitioners?** Executive-level champions vs. BIM leadership driving organic adoption. Tension remained unresolved. *Opening, S4*

Concrete Commitments (Gold Sticky Notes — 30/90/365-day)

1. **[30-day]** Firms will establish Responsibility Matrices in the BIM Execution Plan to define cross-discipline accountability at every project phase handoff.
2. **[30-day]** Summit attendees agreed to withhold payment until all BIM deliverables meet contractual acceptance criteria.
3. **[90-day]** Organizations will train field superintendents and supervision staff on BIM navigation tools (Navisworks at minimum) to build model trust and reduce change orders.

4. **[90-day]** Design and construction teams will require BIM models to be issued to subcontractors with every PDF drawing set for all BIM-based projects.
5. **[90-day]** Summit discussion surfaced the need for an AI steering committee and peer exchange forums (no formal commitment made to convene one).

Miro Board Key Comments:

"This summit proved that the industry is ready for honest, cross-discipline conversation about what's working and what isn't."

"My commitment: within 90 days, bring a formal AI governance framework to our executive team for approval."

"The Reality Loop gets tighter when we stop treating BIM, VDC, and AI as separate conversations and start treating them as one integrated digital delivery strategy."

Action Items:

What follows are the action items the Summit surfaced, not as assignments handed down from a stage, but as open challenges identified by the practitioners who live this work every day.

These action items are organized by topic, each with specific tasks that any organization or individual in the industry can take on. Some name firms and organizations that were in the room and spoke directly to these issues. Others are open to anyone willing to step up.

This is where the Reality Loop stays open. What was said, challenged, learned and documented does not end here. It feeds what comes next!

The Reality Loop Miro Board is live and open to the entire industry. It mirrors the action items in this report, and it is yours to work in.

Claim a task. Document what your firm is doing about it. Post a case study. Share a contract clause you wrote, a standard you adopted, or a pilot that failed, and what you learned from it.

Add what we missed. Challenge what you disagree with. Respond to what others post. Build on it.

The conversations that started at the Summit do not end because the report was published. They continue because of it.

Every contribution has the potential to be referenced in the next Reality Loop Report. If you want to be credited, add your name. If you prefer to stay anonymous, your insight still matters and will be captured.

Access the Reality Loop Board: www.buildingsmartusa.com

Reality Loop Action Items:

Contracts & Procurement

- 1) **The industry needs enforceable standard contract language for digital delivery.**
 - a) Broward County to review current BIM contract language and identify gaps where requirements exist in the BEP. Broward County to look to add AI language in the BEP.
 - b) DBIA to develop model BIM/VDC contract language templates specific to Design-Build, CM at Risk, and Design-Bid-Build delivery methods.
- 2) **Contracts must address AI-generated content, accountability, and disclosure.**
 - a) DBIA and buildingSMART USA Airport Room to convene a working group on AI contract language for AEC within 6 months. Define AI Use Cases, Accountability and Liability in contract language.
 - b) Firms to add an AI use clause to their next BEP defining what AI tools are permitted, how outputs are flagged, and who reviews them.
 - c) Insurance carriers serving the AEC industry to be engaged on developing frameworks for AI-assisted design and construction decisions.
- 3) **Trade partners must receive BIM models and full BIM scope before they price the work.**
 - a) Broward County to meet with trade partners to ensure models are included in bid packages for all BIM-required projects.
 - b) General contractors attending the Summit to commit to issuing BIM models with every 2D PDF drawing set to subcontractors on their next project.
 - c) Trade partners to document and share examples of where they received BIM scope after award and the cost impact of that gap.

Model Trust & Validation

- 4) **The industry needs a shared definition of model trust, and a way to measure it.**
 - a) buildingSMART USA or BIMForum to form a working group on developing a **"model trust score"** or confidence index specification.
- 5) **Model validation must become continuous, not a one-time event at turnover.**
 - a) Project teams to begin tracking model-to-field variance as a KPI and report findings back to the Reality Loop Board.
 - b) Firms using Solibri, Navisworks, or other checking tools to document their QA/QC gate workflow and share it as a repeatable process.

- c) Owners to require model validation against field conditions at design milestones, not just at turnover.

Standards & Execution Planning

- 6) **BIM standards must scale to project complexity — not apply blanket requirements.**
 - a) Firms to create internal BIM service tiers (Basic, Advanced, Innovative) with defined capabilities and costs for each.
 - b) Owners to define minimum BIM requirements scaled by project value, complexity, and operational criticality on their next RFP.
- 7) **The BEP must become a collaboration instrument, not a compliance artifact.**
 - a) Project teams to add a Responsibility Matrix to their next BEP defining who is accountable for model content at every phase handoff.
 - b) BEPs to be updated to include AI governance provisions, data handover requirements, and interoperability standards.
 - c) Firms to compare their current BEP against their contract language and identify where accountability gaps exist.
- 8) **Open standards and interoperability must become non-negotiable.**
 - a) Firms to require open-format deliverables (IFC, BCF, COBie) alongside native files on their next project.
 - b) buildingSMART USA to promote IDS (Information Delivery Specification) adoption as the standard for defining BIM requirements in a software-neutral way.

AI Governance & Deployment

- 9) **The industry needs a shared AI governance framework.**
 - a) buildingSMART USA Airport room to promote their AI governance working group with input from owners, contractors, designers, and technology vendors.
 - b) Firms to write a one-page **"responsible AI"** policy and post it, even if it is imperfect, before waiting for industry consensus.
- 10) **AI is a force multiplier for experts, not a replacement for judgment.**
 - a) Firms to identify one narrow, well-defined BIM workflow (QA/QC, quantity takeoff, document naming) and pilot AI on that single task before expanding scope.

The Handoff Problem

- 11) **The design-to-construction-to-operations handoff is where the industry loses its digital investment.**

- a) Design firms to provide models to construction teams with documentation of what the model can and cannot be used for, including known limitations.
 - b) General contractors to document the cost of model remediation (the "**BIM Cleanup Tax**") on their next project and share findings.
- 12) **Owners are mandating BIM deliverables they cannot operationally consume.**
- a) Port of Seattle to share their approach to connecting BIM deliverables to operational workflows as a public owner case study at next Summit.

Workforce, Training & Adoption

- 13) **Field teams are the most important users of the model and the least included in planning.**
- a) General contractors to ensure every subcontractor on their next BIM project has mobile access to the model in the field.
 - b) Trade partners to document their experience receiving (or not receiving) models and the impact on their field operations.
- 14) **The industry must treat BIM/VDC adoption as a people investment, not a technology purchase.**
- a) Firm leadership to determine whether their BIM/VDC staff is classified as billable or overhead, and if overhead, to evaluate whether that classification undermines adoption.
 - b) Firms to create or revitalize an internal BIM/VDC committee with executive sponsorship and cross-department representation.

More Unresolved Questions

These are not action items, they are open debates. They will have dedicated space on the Reality Loop Board where the industry can weigh in.

- 15) **Who should own enterprise BIM and AI strategy. Business leadership or technical practitioners?**
- 16) **Is integrated project delivery (IPD) the solution to BIM handoff failures, or has the industry moved past it?**

Acknowledgements

Presenting Sponsors

Thank you to VDCO Tech and LeapThought for being our Presenting Sponsors for the 4th Annual BIM SMART Summit and The Reality Loop Report. Your leadership, innovation and commitment to advancing digital delivery and the built environment make BIM SMART possible!!!

LEAPTHOUGHT

Report Prepared by:

This Reality Loop Report was created by Cindy Baldwin and Scott Yates with VDCO Tech and VDCO Data and is distributed in collaboration with buildingSMART USA, USIBD and our Industry Partners. For questions, contributions, or to participate in future Reality Loop events, please contact cbaldwin@vdcotech.com.

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Miro Board Developed by:

The Reality Loop Miro Board, which captured and organized the live input from Summit participants, was developed and structured by Scott Yates. Designed with an AI-enabled approach to data capture and analysis, the board functioned as a structured data environment, allowing real-time inputs to be aggregated, interpreted, and translated into actionable insights that directly informed the findings and recommendations in this report.

Scott Yates
Chief Data & AI Officer, VDCO Data

To all our Sponsor and Attendees, THANK YOU!

To everyone who was in the room, Thank You!!! You didn't just sit through another event. You leaned in, spoke up, challenged each other, and put real input on the board. That matters.

Because this report isn't built from presentations. It's built from what you contributed. Your experience, your perspective, and your willingness to say what's actually happening on projects. That's what made this different. This report exists because of that!

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Summit Attendees

BIM SMART Summit 2026 – Attendee List (Alphabetized)

118 attendees from 69 organizations attended the 4th Annual BIM SMART Summit, representing a cross-section of the AEC industry. Their willingness to engage openly, challenge assumptions, and share real-world experiences made this report possible. Thank you everyone!

Joel Atangan – Stiles Construction	Sean Doyle – Bond Building Construction	Shannon Lightfoot – McCarthy	Paulo Santos – VDCO Tech
Jeffrey Avina – LeapThought Corporation	Justin Duffie – Trimble	Henry Lozano – VDCO Tech	Lance Van Schaik – VDCO Tech
Lumey Bacallao – Stiles Construction	Janna Eklund – Conti Electric	Brian Maldonado – Hanson	Eileen See – State Contracting
Cindy Baldwin – VDCO Tech	Lindsley Etienne – Saltz Michelson	Liliana Martinez – Port of Seattle	Bruno Senna – Saltz Michelson
Wally Ballou – Bentley Systems	Tyler Evans – VDCO Tech	Gaspar Mateo – BIMPro	Keshav Sharma – AuGrade
Chris Bartlett – The Weitz Company	Nellie Fernandez – Palm Beach State	Alexis McKay – VDCO Tech	Jason Shebert – 26 Degrees
Alan Birmaher – Digital Drafting Systems	Julianna Kovacs Field – Dalux	Diego Melendez – Conti Electric	Sean Simon – GENSPECT
Jaime Birmaher – Digital Drafting Systems	Ratnakar Garikipati – LeapThought	Natália Mendes – Ryangolf	Brian Skripac – DBIA
Leo Boccardi – Digital Drafting Systems	Zach Gerboc – Verdex Construction	Albert Menedez – M Group	Sandra Smerkers – VDCO Tech
Wladimir Borges – HNTB	Angie Gonzalez – Moss	Troy Mifsud – NV5	Joe Soliz – Digital Conditions
Jack Brown – Bond Building Construction	John Gray – Colliers Engineering	Melissa Morales – Moss	Aaron Sorrell – Federal Reserve
Janeille Calnick – Turnagain Marine	Zaira Gutiérrez – ARCOpm	John Murphy – Coastal Construction	Laura Sotomayor – Broward County
Derek Carroll – VDCO Tech	Mark Handy – TRC Engineering	David Nachreiner – VDCO Tech	Anna Sousa – The Weitz Company
Paul Carty – State Contracting & Engineering	Michael Happ – Hensel Phelps	Pravin Nanayakkara – Lakdas/Yohalem	Brian Spence – BS3D
Caroline Castaneda – Solibri	Ian Harvey – Broward County	Mehdi Nikipoor – HNTB	Sakomvat Sukphisit – Broward County
Angel Castillo – Broward County	Juan Herrera – BuildingPoint Florida	Christopher O'Neill – Leo A Daly	Posh Supupramai – HDR
Natalia Castro – Saltz Michelson Architects	Joshua Hudson – VDCO Tech	Mariela Paez-Castillo – Broward County	Sid Sutar – Moss
Maurice Clarke – Hensel Phelps	Mitchell Hudson – Kimley-Horn	Lucien Pare – University of Miami	David Thirlwell – Stiles
Adajah Codio – Broward County	Dr. Jennifer Jurado – Broward County	Miren Patel – Conti Electric	Jeff Thompson – Broward County
Seth Cohen – Hanson Professional Services	Carlos Justiniano – Justin Architects	Justina Peart – Valerin Group	Jill Thompson – Broward County
Luiz Conrado – Digital Drafting	Daniel Justiniano – Justin Architects	Ben Penzick – Dalux	Christopher Tipa – Kimley-Horn
Coraliz Cordero – Town of Palm Beach	Lethe-Ann Kazeh-Anfo – CORE Construction	Bryan Pravda – Pravda Architecture	Ashley Tisue – VDCO Tech
Andrew Cortes – BuildingPoint Florida	Steven Kerley – Door Systems	Carlos Puello – Arquitectura Singular	Mark Ugowski – Leo A Daly
Alejandro Cuevas – Broward County	Harshvardhan Khantadia – EDS	Jason Reichel – Solibri	Angela Velez – The Weitz Company
Kat Daunheimer – Midnight BIM	Collette Kimbel – MicroCAD	Augusto Rivera-Pierola – HNTB	Nicholas White – Stiles Construction
Patrick Davis – MicroCAD Consulting	Will Kleine – Conti Electric	Bernard Roberts – Conti Electric	Donata Williams – TRC
Gerry Diaz – Town of Davie	Brian Kraus – Broward County	Jose Rojas – Port Everglades	David Wurst – Gresham Smith
Nick Dima – VDCO Tech	Geo Lago – Broward County	Jon Sage – 3DCADCO	Scott Yates – VDCO Data
Ben Dougal – Reconstruct	Erika Lanz – Conti Electric	Caron Saintil – Town of Davie	
Elissa Douglas – Parsons	Nadine Levy – Broward County	Michael Salvato – InfraRE	