

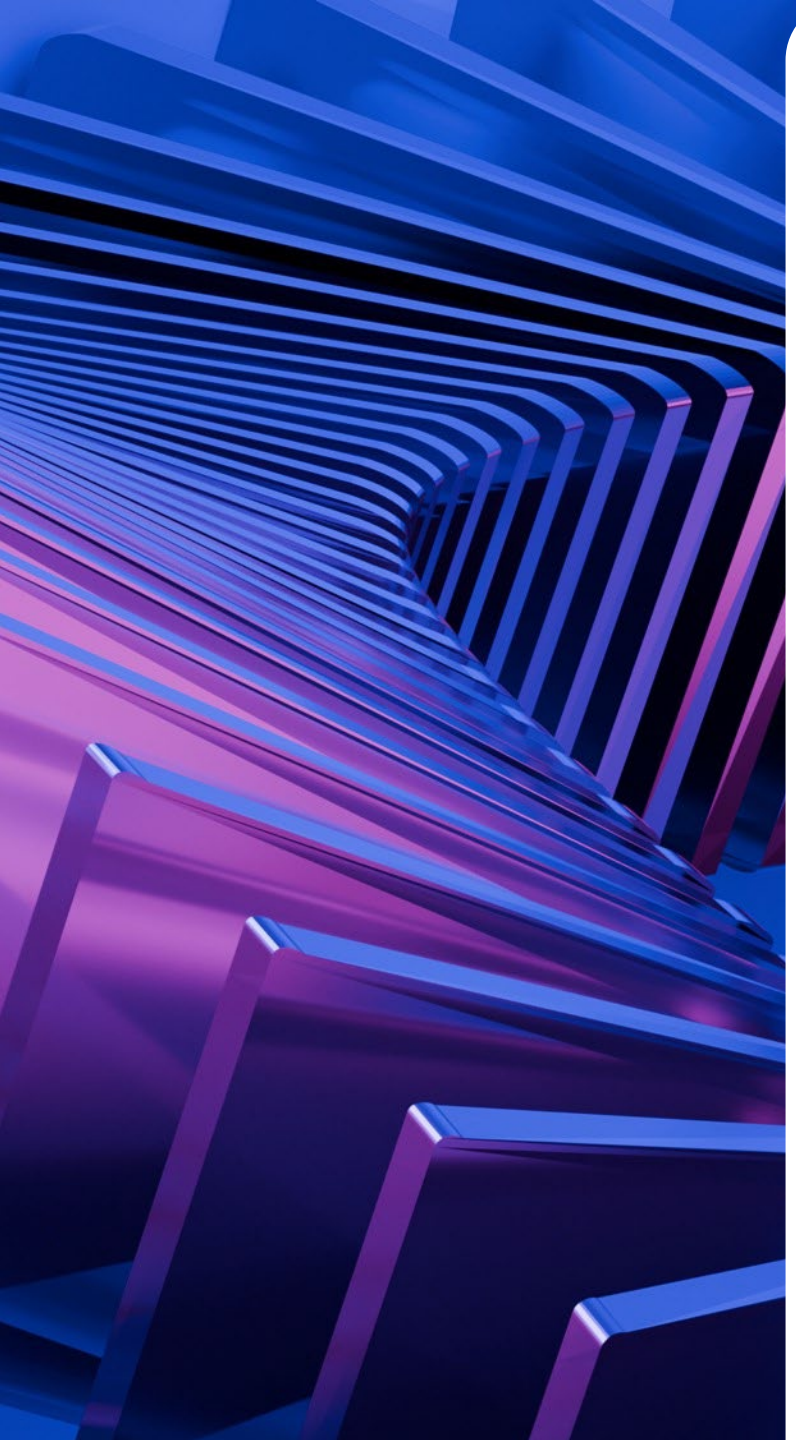
Stantec

Stop Sharing Screens – Start Sharing Space

Practical XR for Model Coordination

Chicago Build 2026

Joseph Huang, PhD, AIA



Icebreaker: Quick Show of Hands

1. Who has already used VR/XR on a real project?

a) Never

b) Tested it

c) Pilot project

d) Regularly use it

Icebreaker: Quick Show of Hands

In your coordination meetings, who usually controls the model?

a) One BIM coordinator

b) Discipline Lead

c) Whoever shares their screen first

d) We collaborate in a shared environment

About the Speakers



Joseph Huang

Principal, Architect
Stantec

- Principal, Architect, Innovation Leader (Chicago)
- Registered Architect (Illinois & Texas)
- Experience from Buildings to Wet Infrastructure
- Former XR Professor at Northwestern University
- Veteran Chicago Build Speaker

Agenda

01 The problem – why screen sharing falls short

02 Reframe XR as a decision environment

03 Know when XR adds Value

04 Use a repeatable XR playbook

05 Connect XR to the delivery workflow

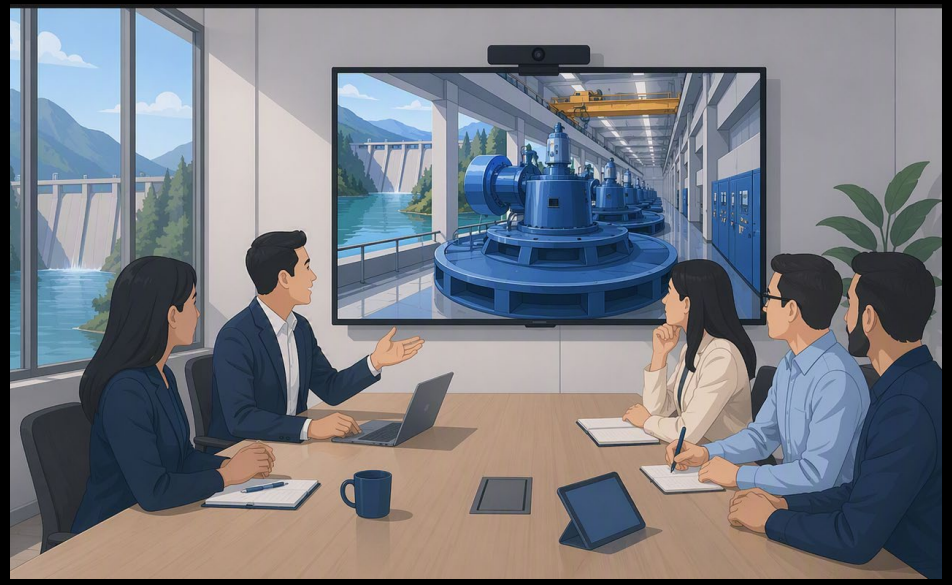
06 Scale adoption without adding burden

THE PROBLEM

Why Most Coordination Is Still Stuck in Screen Sharing

- One person drives the model and the camera — everyone else listens and reacts.
- Most participants stay passive observers, not active contributors.
- Understanding depends on each viewer's ability to interpret a flat screen.
- Meetings become debates about what people think they're seeing.

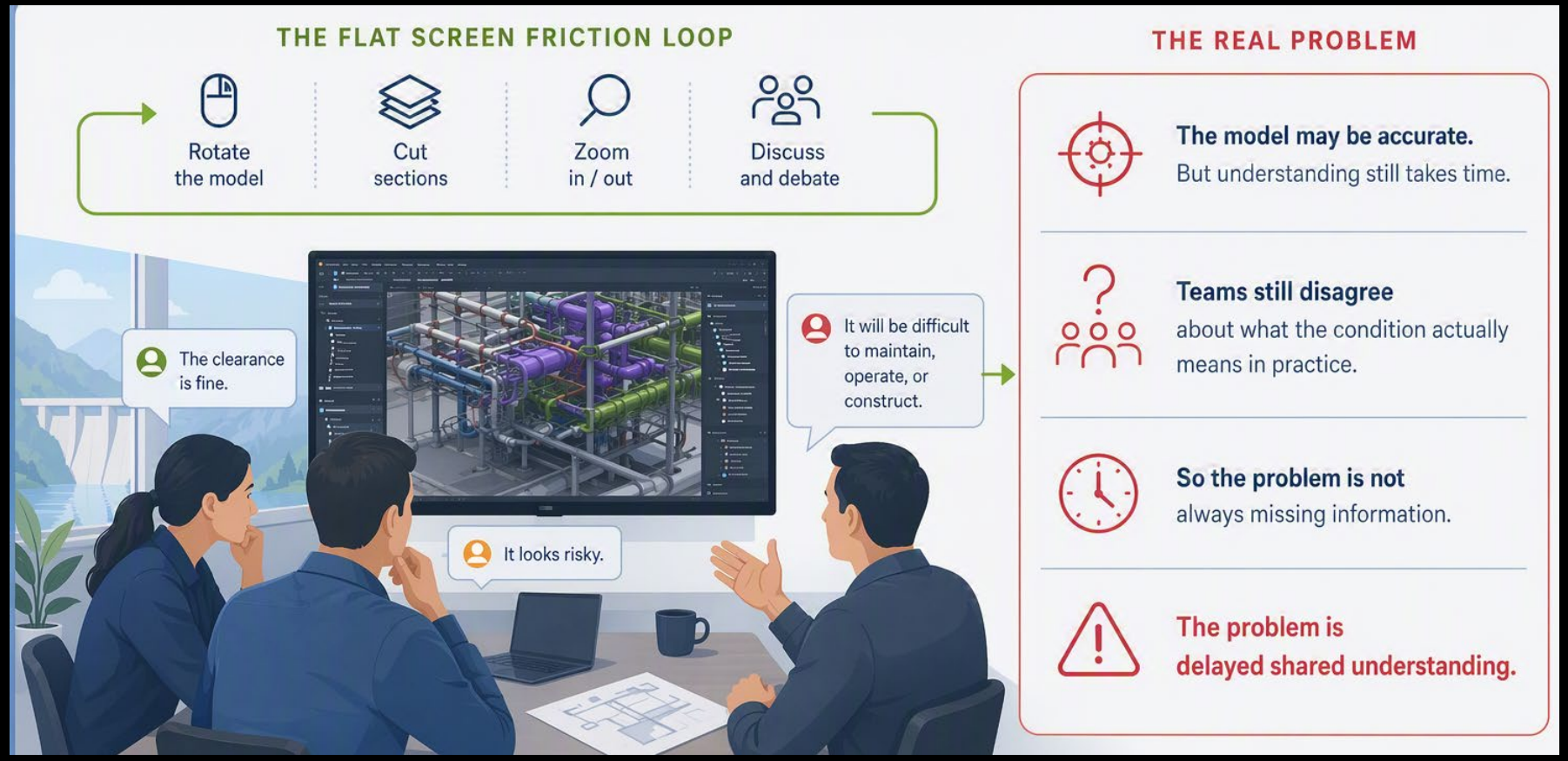




CHALLENGE

Why Spatial Problems Are Hard to Solve on Flat Screens

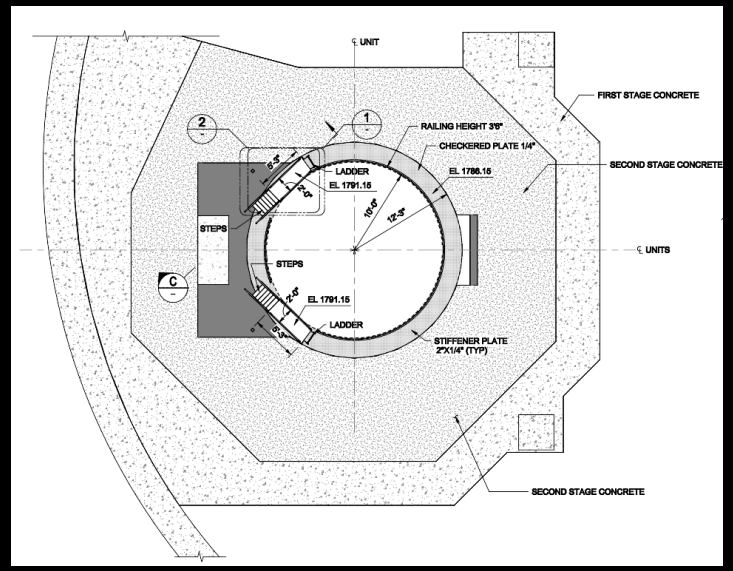
- clearance
- access
- adjacency
- visibility



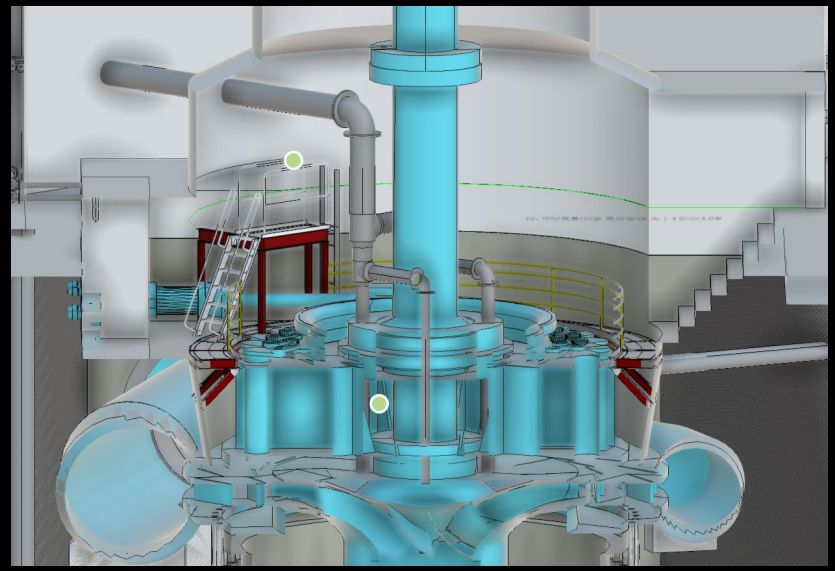
That delay matters because coordination is not just about
seeing the model. → **making decisions confidently and efficiently.**

CHALLENGE

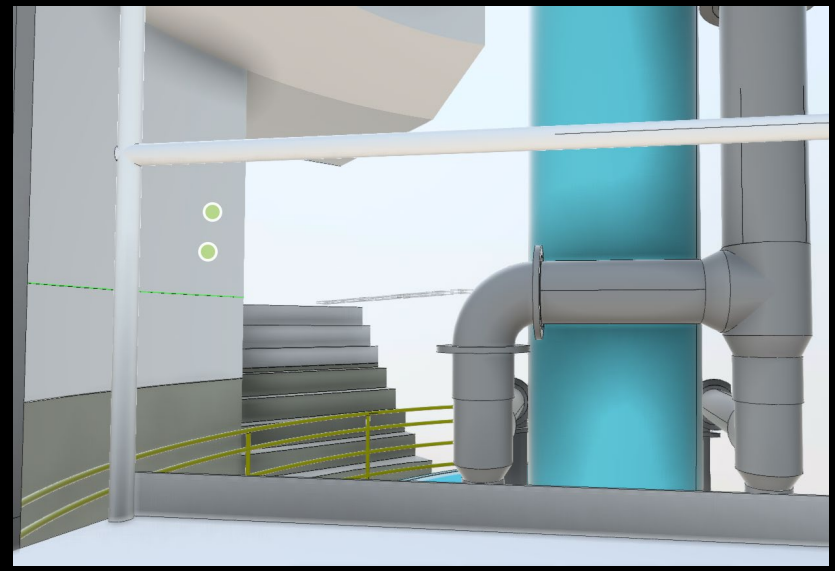
Real Project Challenge



PLAN



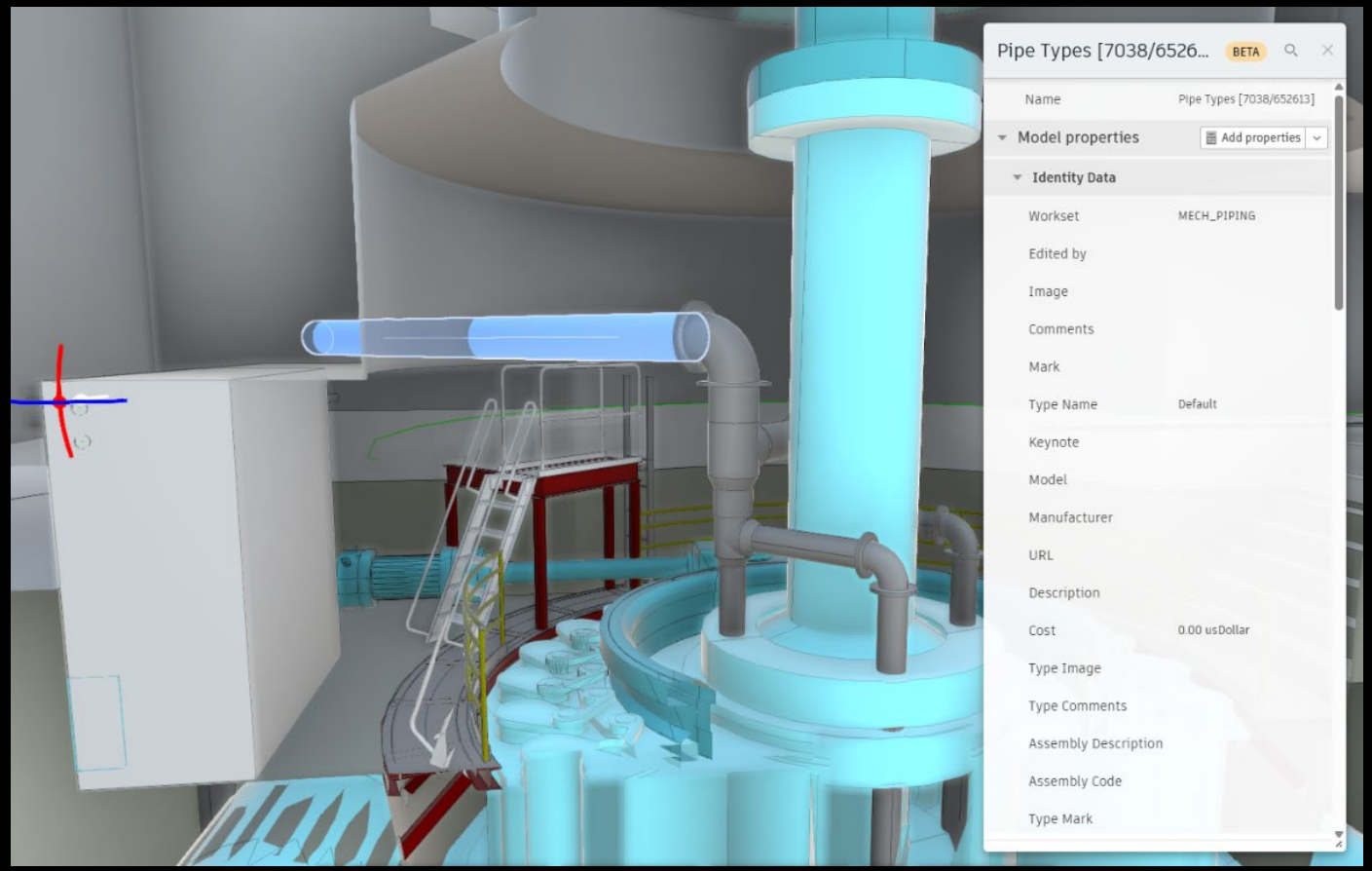
3D SECTION

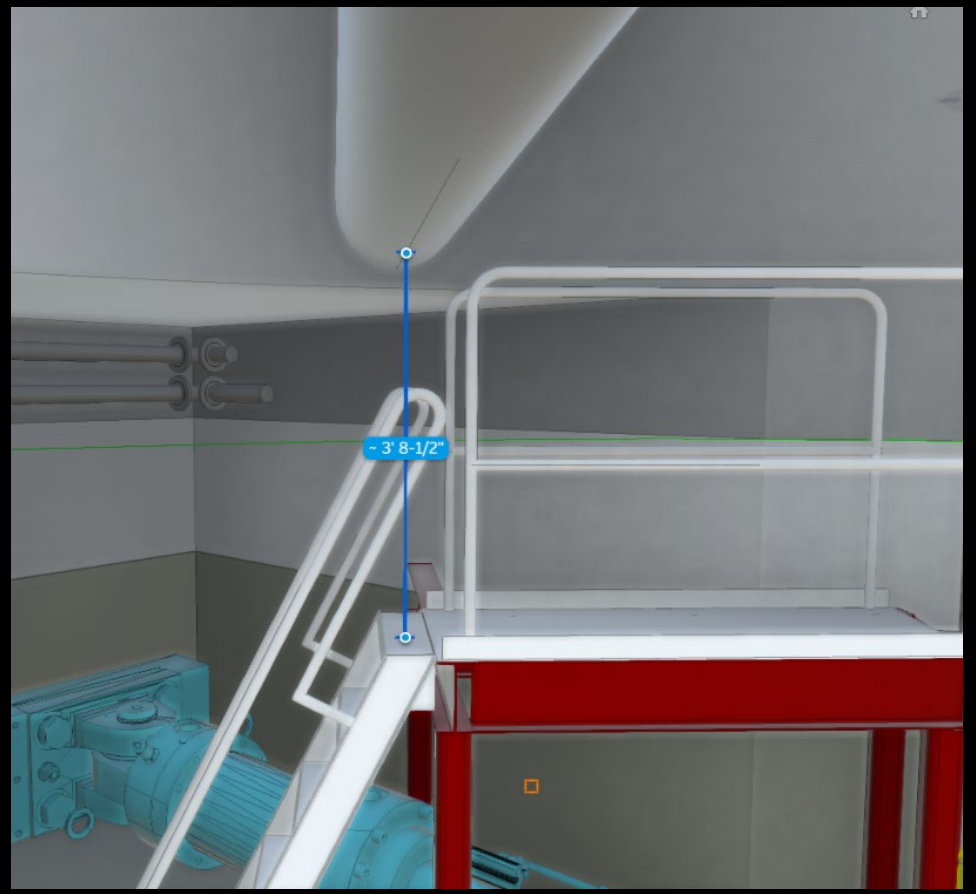


PERSPECTIVE

CHALLENGE

Real Project Challenge





*We can do all of these in Autodesk Workshop XR.

From Model Review to Decision Clarity

THE REFRAME



DEFINITION

XR is a decision environment.

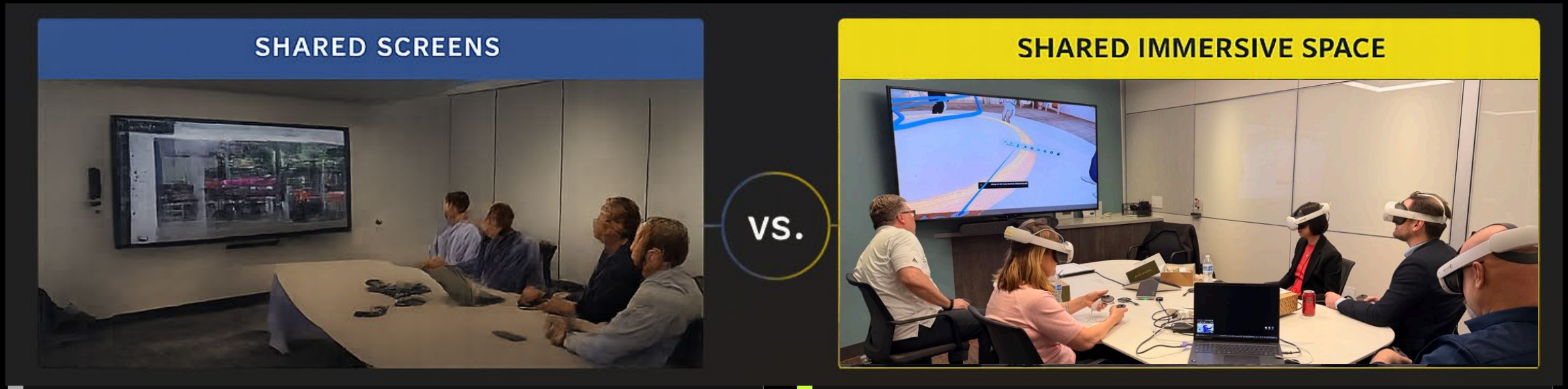


Not a novelty. Not a walkthrough. Not just visualization.

- Use immersive space when spatial understanding is the bottleneck to alignment.
- Judge it by decision quality, not immersion factor.

WHAT CHANGES

Shared Screens vs. Shared Space: What Actually Changes



One viewpoint

- One person controls the camera.
- Others interpret at a distance.
- Verbal explanation does the work.
- Non-modelers stay sidelined.

Common context

- Scale and proximity read directly.
- Conversation anchors to one context.
- Less verbal translation required.
- Non-modelers contribute confidently.

Choosing the Right Coordination Tools

WHEN XR ADDS VALUE



WHEN XR WORKS

When XR Improves Coordination Outcomes

XR creates the most value when at least one of these is true:

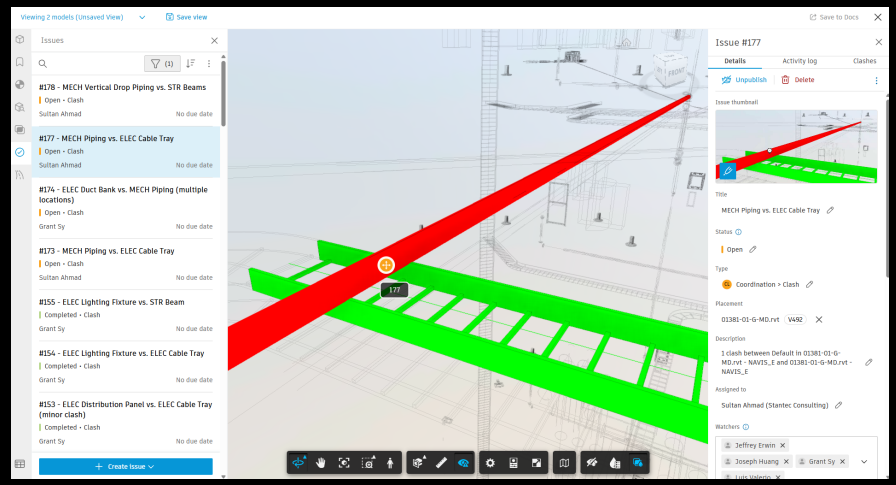
- ☑ The issue is spatially ambiguous.
- ☑ The team is not aligned on what the condition means.
- ☑ Key stakeholders aren't comfortable interpreting desktop models.
- ☑ The decision needs experiential, not just clash, judgment.

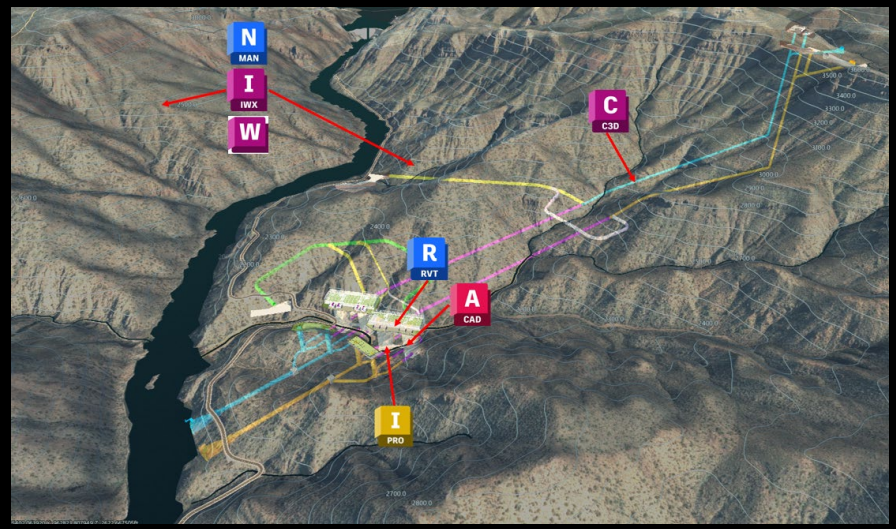


WHEN DESKTOP WINS

When Desktop Review Is Still Better

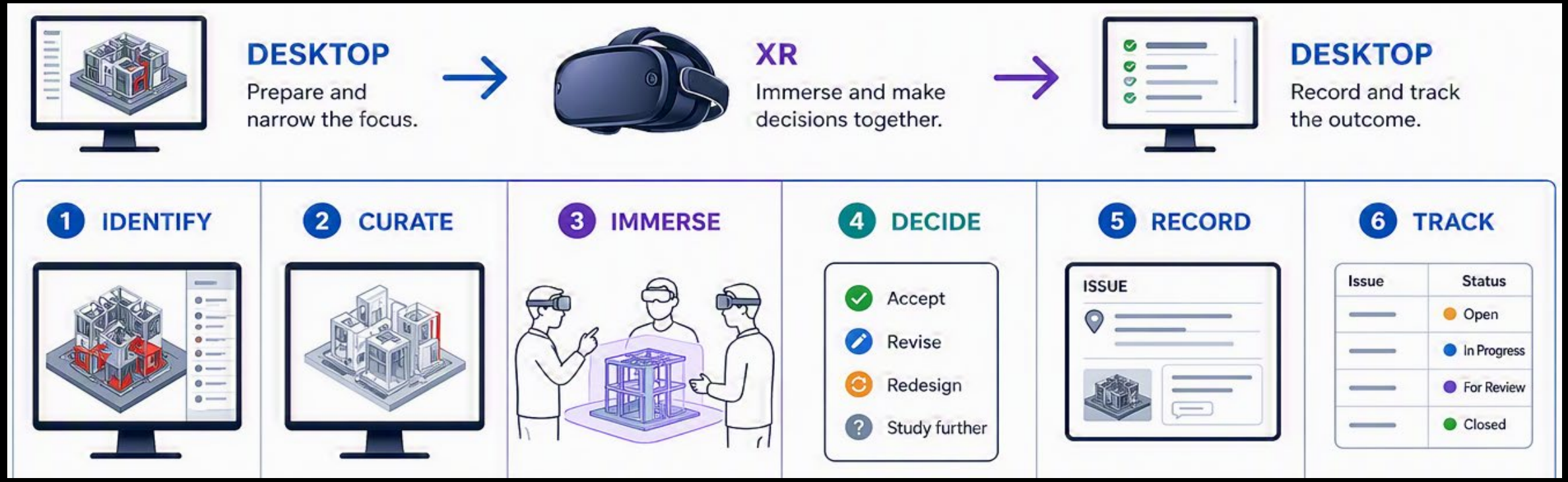
- High-volume clash detection and triage.
- Filtering, metadata, status tracking.
- Full-model navigation across disciplines.
- Daily coordination management and admin.
- Repetitive tasks where speed depends on filters.





HYBRID WORKFLOW

Hybrid Reviews: Desktop → XR → Desktop



How to Run Effective Immersive Coordination

THE XR PLAYBOOK



THE PLAYBOOK

The XR Coordination Playbook (Overview)

BEFORE

Prepare the decision

Define the question. Curate the scope. Set the objective.

DURING

Be prepared to Facilitate the review

Orient, test, decide. Keep the session anchored to the call. Center the Scope and reach a decision.

AFTER

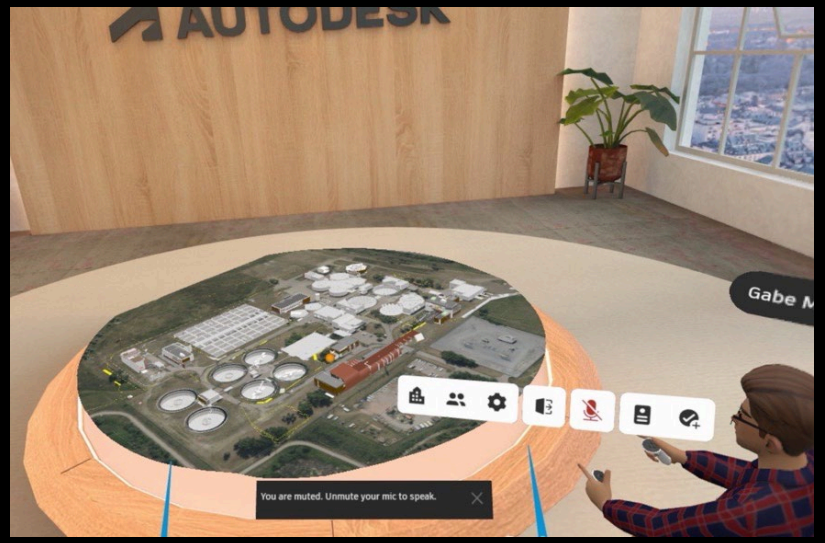
Convert Decision to action

Record the decision. Assign owners. Push back to coordination.

BEFORE — CURATE SCOPE

Focus the Model: Reduce Scope, Increase Clarity

- Curate the problem zone — don't load the whole project federated model.
- Hide irrelevant systems; keep essential context.
- Orient the team around the question.
- Simplify the path to understanding.





DURING — STRUCTURE

Structure XR Meetings for Real Collaboration

1

Facilitator

Controls objective and flow.

2

Discipline Lead

Explains intent and constraints.

3

Stakeholder

Weighs in on viability.

4

Recorder

Captures decisions and actions.

DURING — CADENCE

From Walkthrough to Decision: Orient → Test → Decide

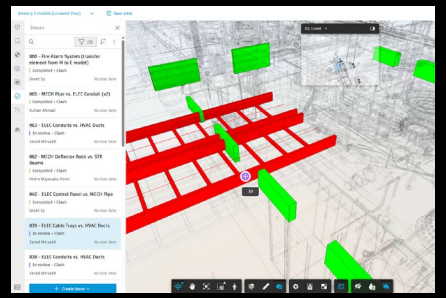


- Orient: where are we, what is the issue?
- Test: compare options, assess clearance, judge viability in context.
- Decide: is the condition acceptable? Who owns the next step?

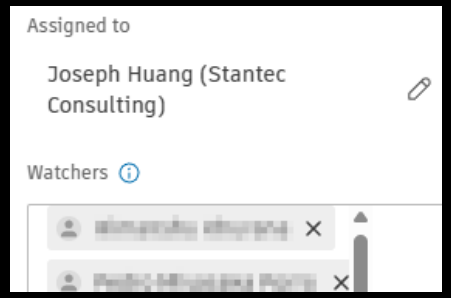
AFTER — CLOSE THE LOOP

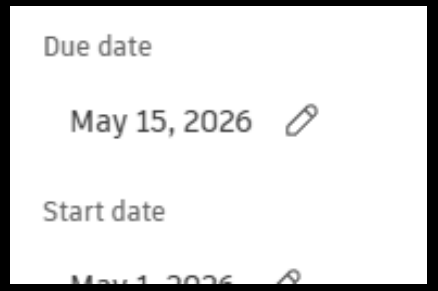
From Insight to Action: Capture Decisions & Ownership

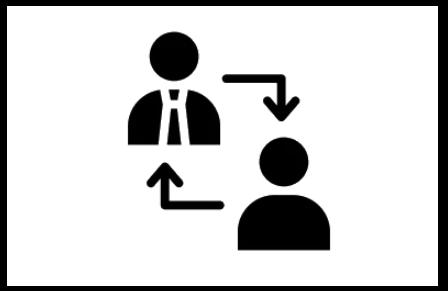
01 **Issue** > 02 **Decision** > 03 **Owner** > 04 **Due date** > 05 **Follow-up**











- Every session ends with a decision, an owner, and a next step.
- Push the outcome back into the team's normal coordination workflow.
- Insight alone isn't enough — closure is.

From Desktop Coordination to Shared Space Decisions

WORKFLOW IN PRACTICE



WORKFLOW INTEGRATION

Workshop XR + Forma (ACC) + Navisworks

XR integrates with — never replaces — your existing coordination backbone.

LAYER 3

Immersive decision layer

Workshop XR — curated reviews for selected calls.



LAYER 2

Desktop aggregation & review

Navisworks — clash detection, isolation, triage.



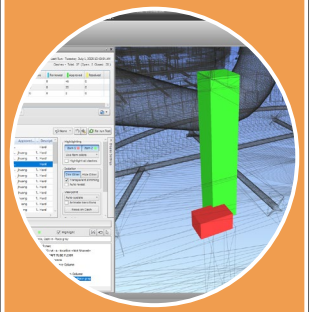
LAYER 1

Project data environment

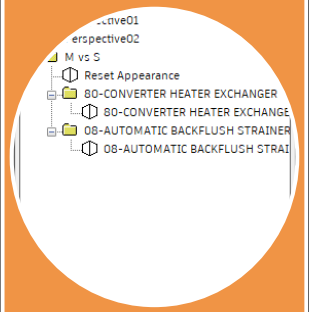
Forma / ACC — models, issues, deliverables.

Navisworks > ACC > Workshop XR

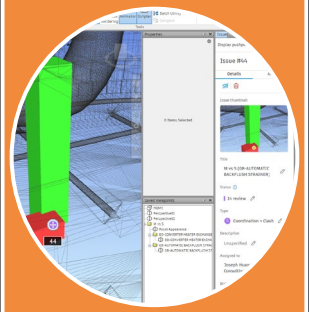
With Coordination Issues Addin for Navisworks



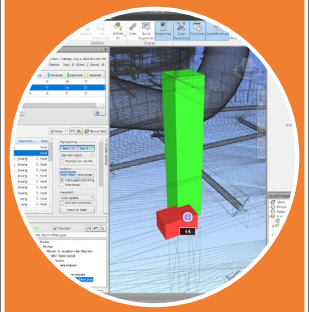
Run clash review in Navisworks



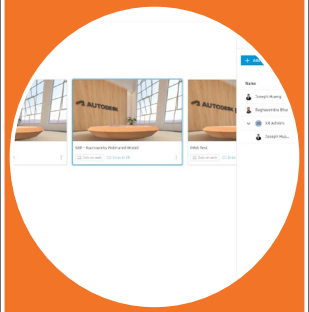
Save Viewpoints in Navisworks from Clash Test



Create Issues & sync to ACC (Coordination Issues Add-in)



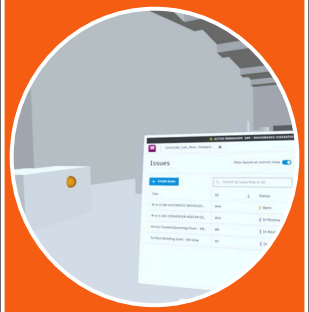
Save as NWD from NWF (WXR acceptable)



Create a Workshop space in WXR with the published data from ACC



Wear Meta Quest 3 headset

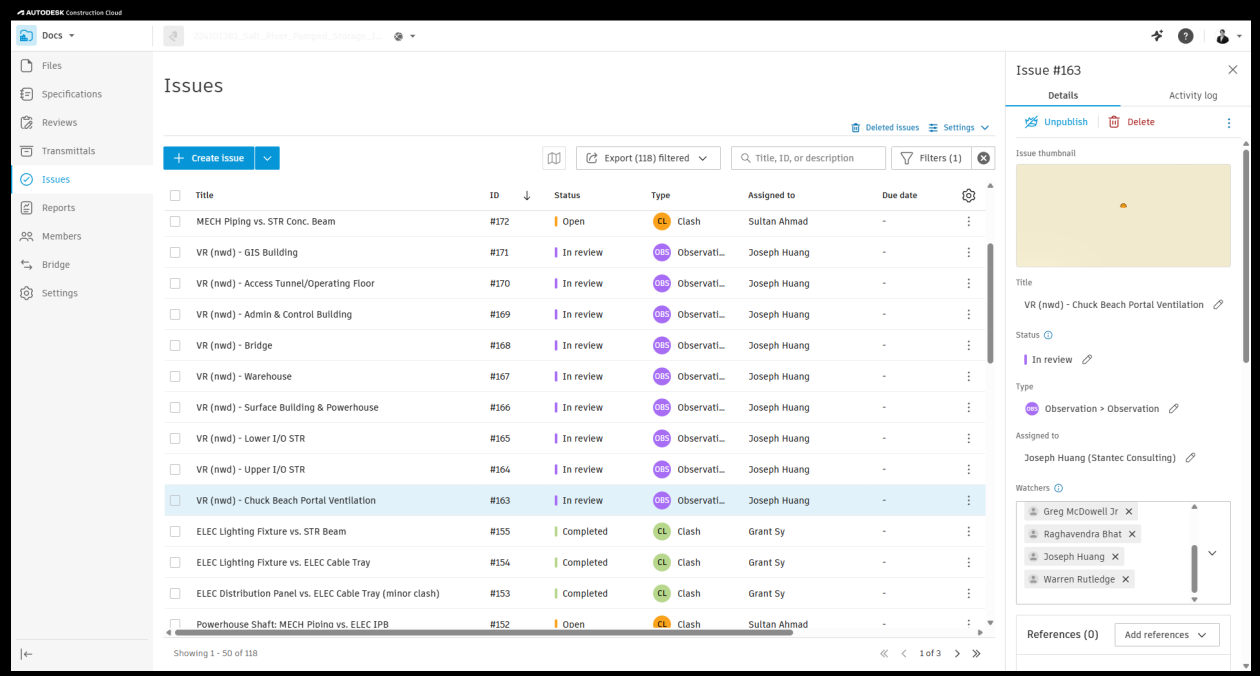


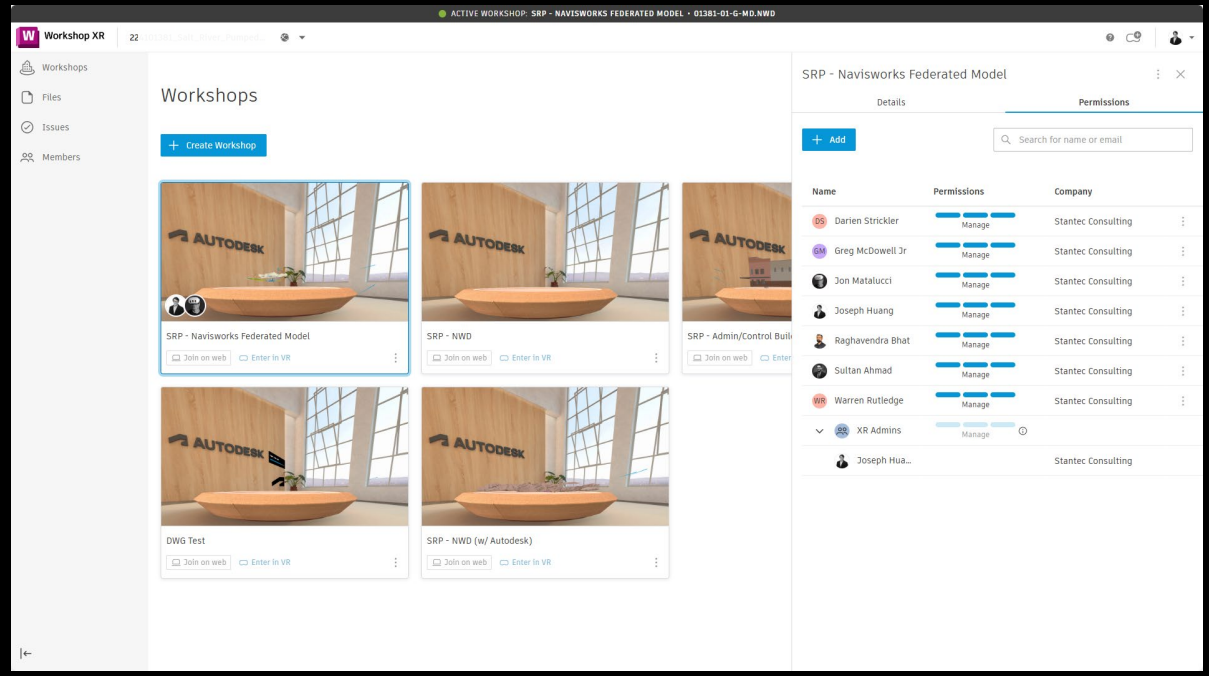
Review Issues from WXR with project stakeholders



Create additional Issues using predefined ACC template, use voice recognition as needed

Permission Controls – Forma and Workshop XR

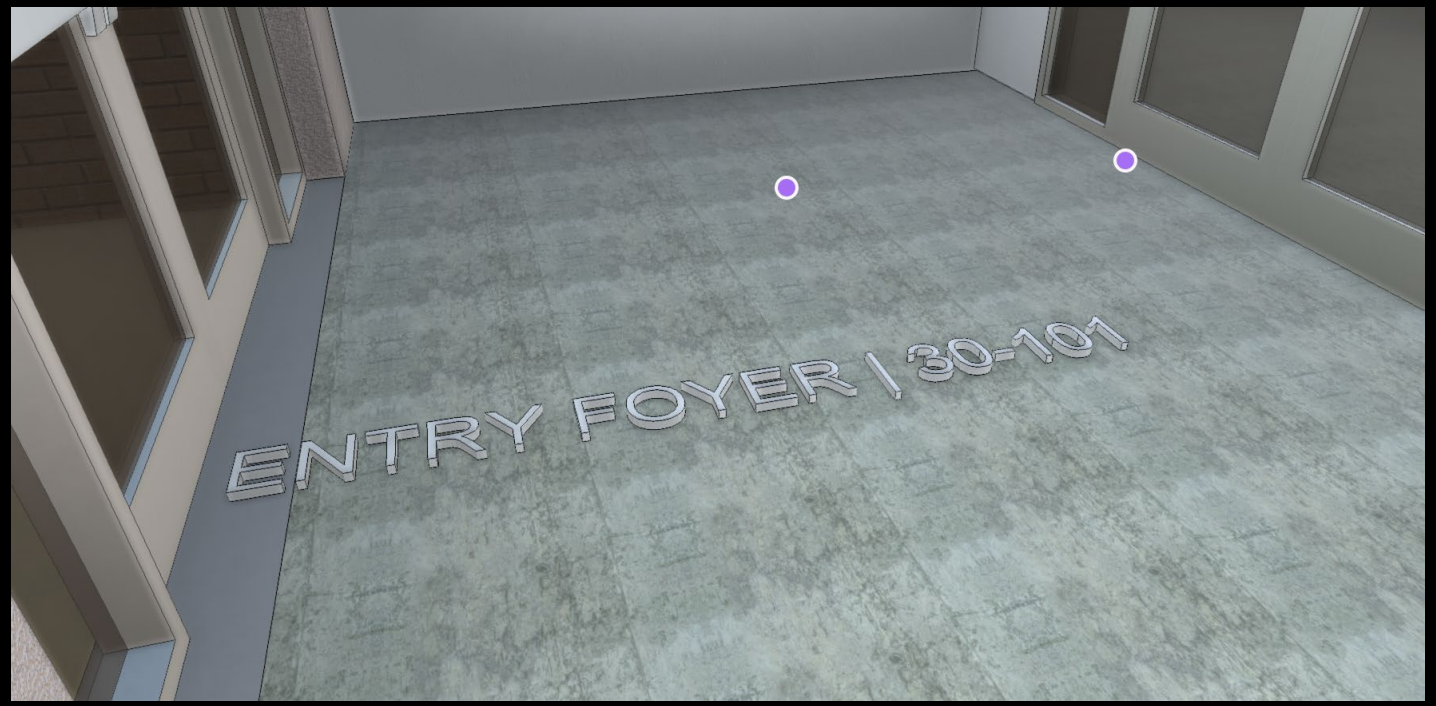




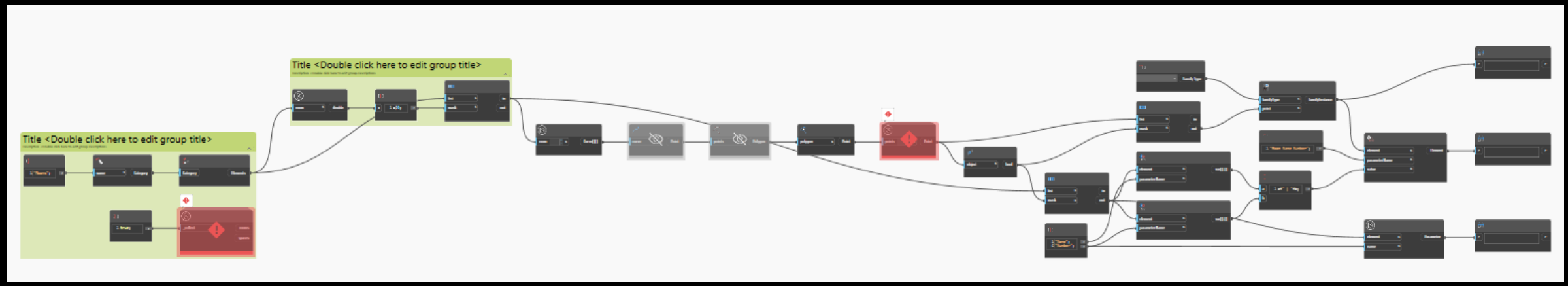
Pre-created WXR location points (Forma Issue Pin)



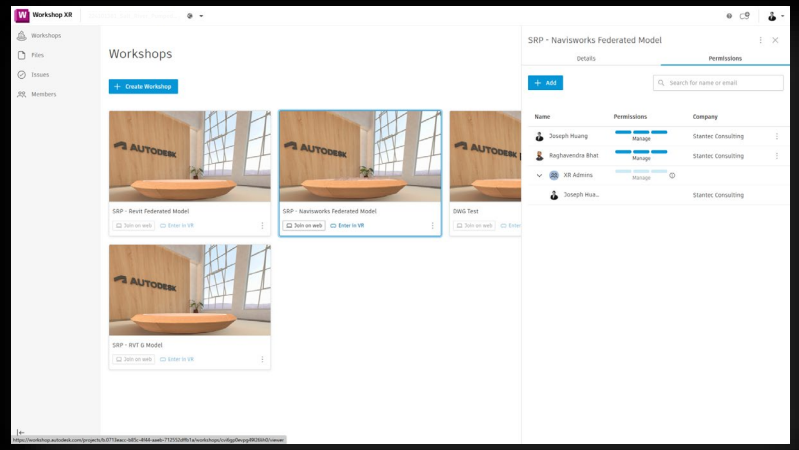
Dynamo-generated 3D Text for all Room Names







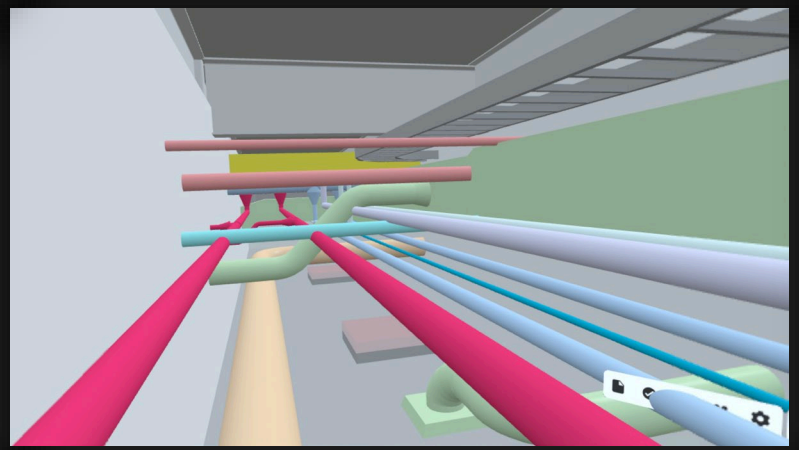
Workshop XR – Virtual Group Meeting & Project Open House

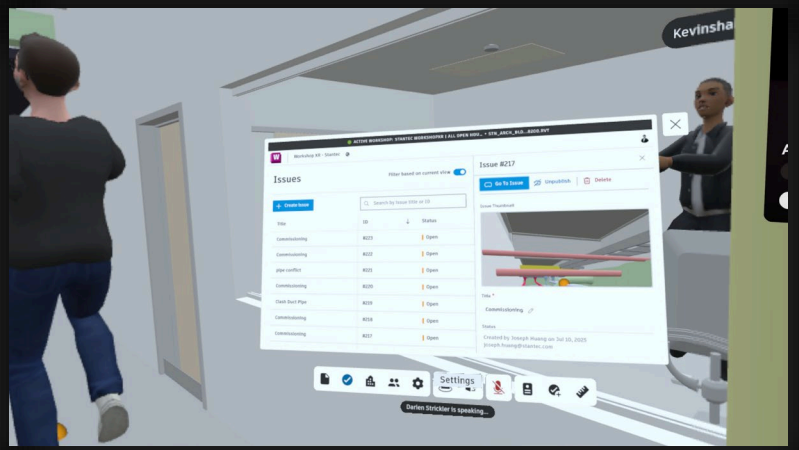






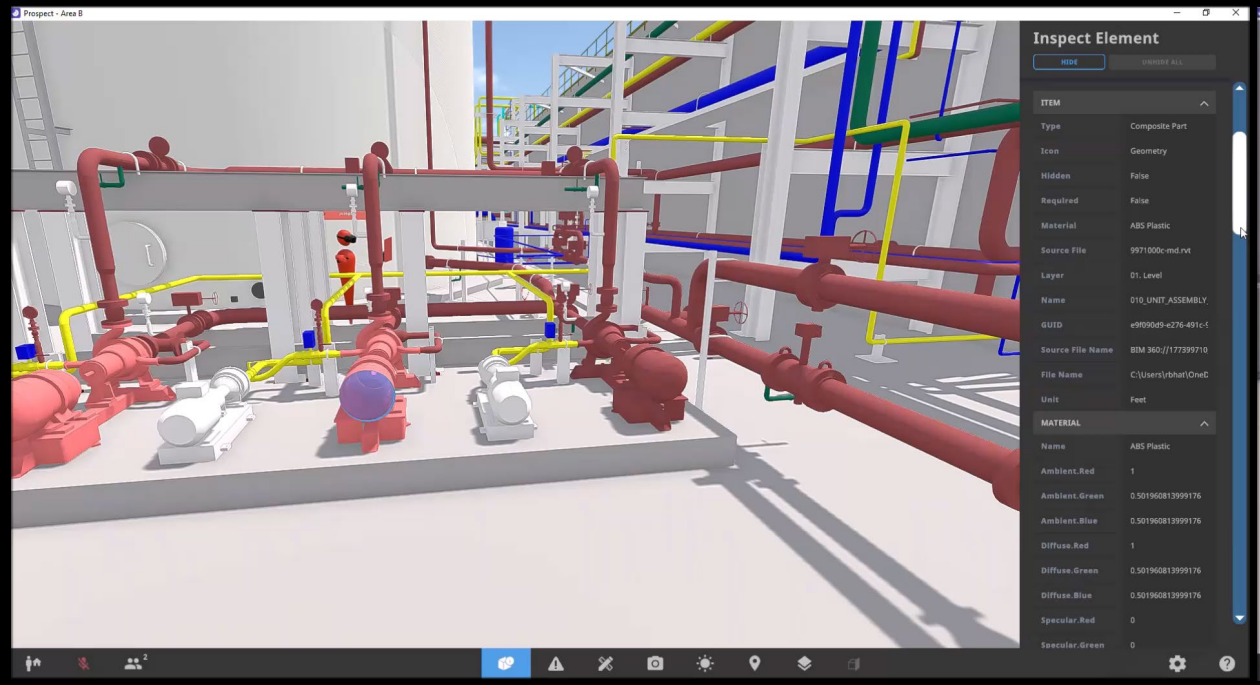






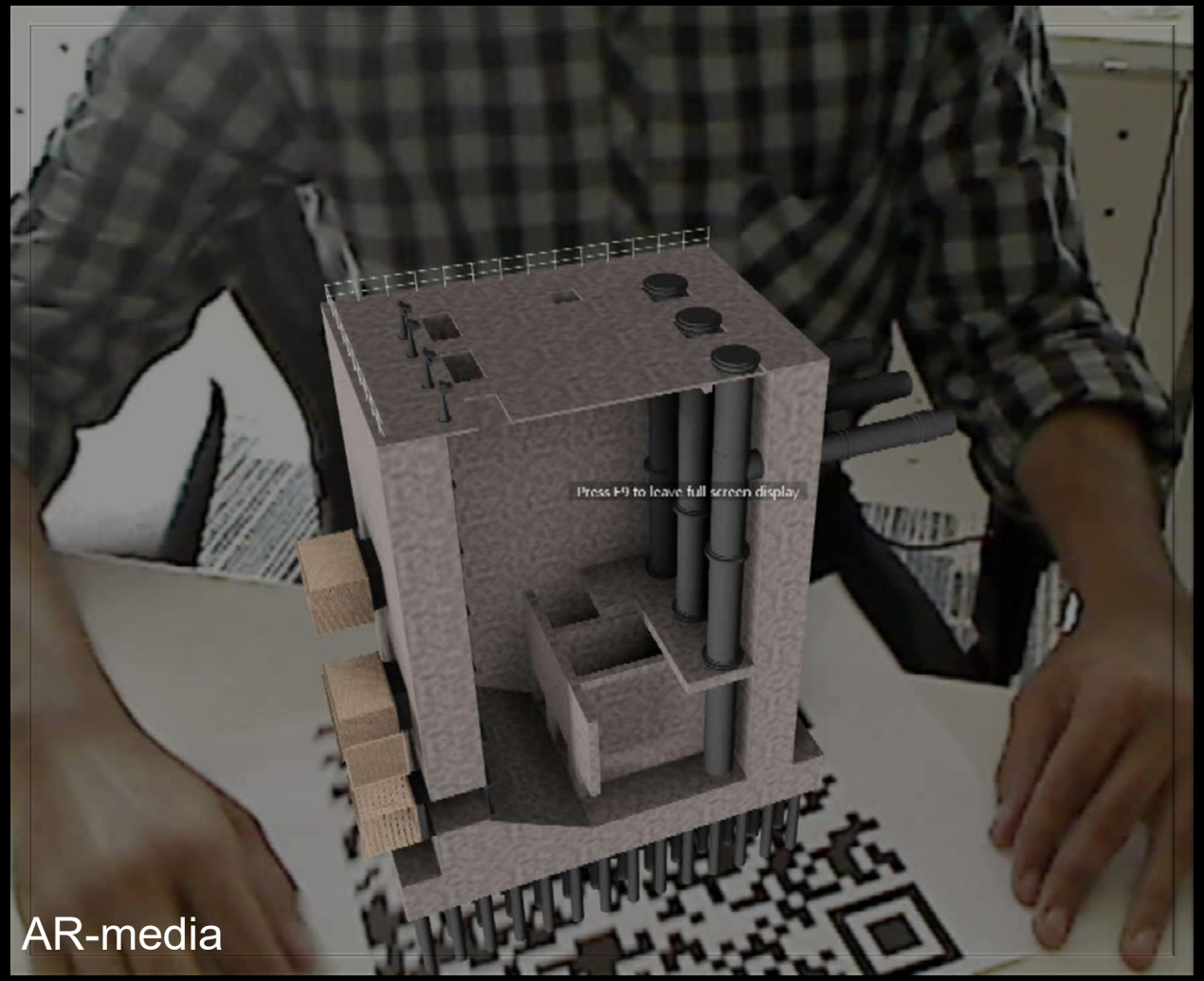
Desktop Review + Virtual Reality

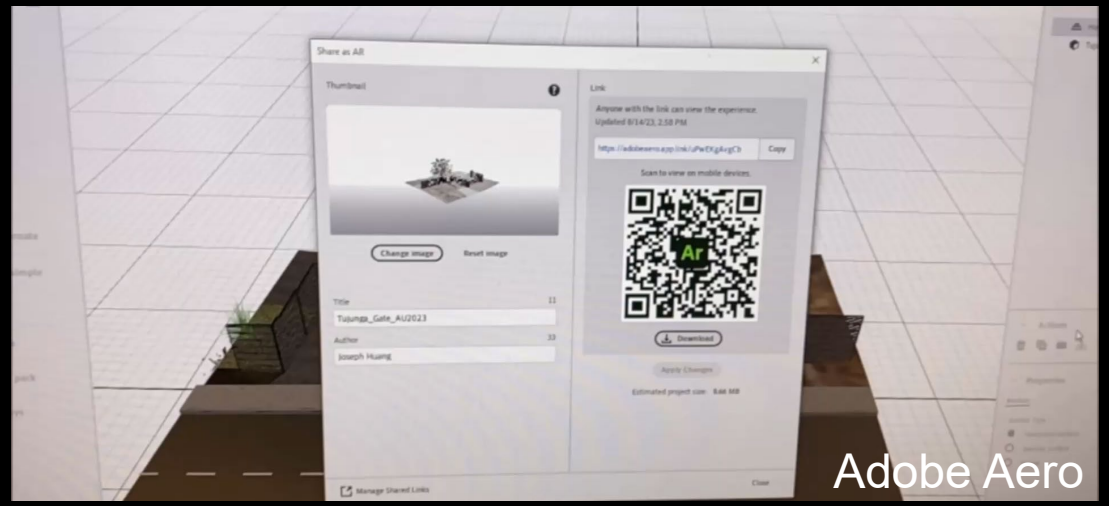
Autodesk IrisVR Prospect: Desktop + Meta Quest 3

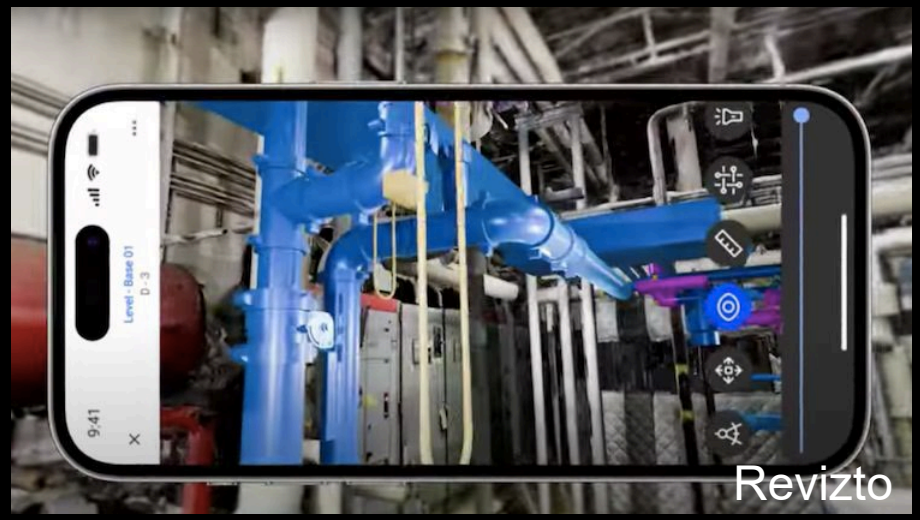




Use of AR for Model Coordination



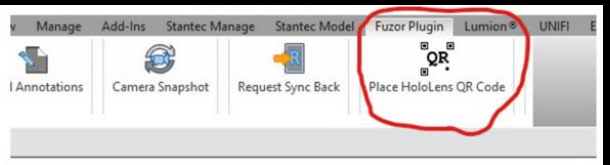


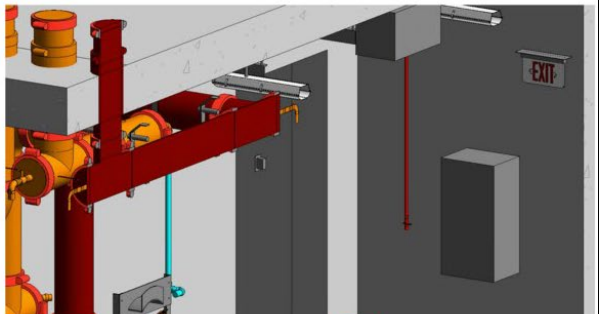


BIM to MR Workflow – HoloLens (via Fuzor)

- Initiate the Fuzor Plugin within Revit
- Place the HoloLens QR Code in the Model
- Place in easily accessible location









- Field place QR Code in same location as model
- Adjust HoloLens model to verify compatibility with environment
- Limit moving objects when initially setting up model
- See how well the Contractor is installing the work!



BIM to MR Workflow – HoloLens (via Unity)



From Experiment to Scalable Practice

MAKING XR WORK



ADOPTION

Adopt XR Without Training Burden or Schedule Impact

DON'T

Add another meeting

Embed XR inside an existing review, not on top.

DON'T

Require expertise of everyone

Only the facilitator needs depth. Others just show up.

DON'T

Start too big

One use case, one pain point, one structured review.

Reduce friction — don't add it.

SUCCESS FORMULA

What Actually Makes XR Coordination Successful

1 Intent

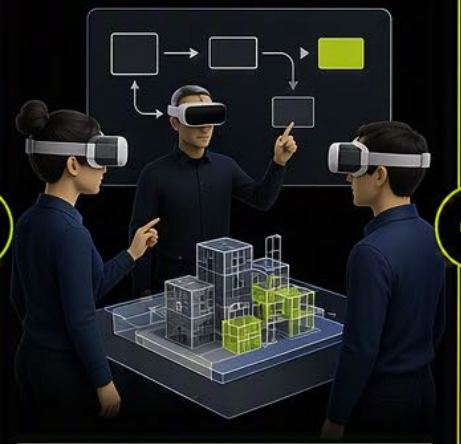
Clarify the why.



- Define the decision
- Identify success criteria
- Agree on scope & guardrails

2 Facilitation

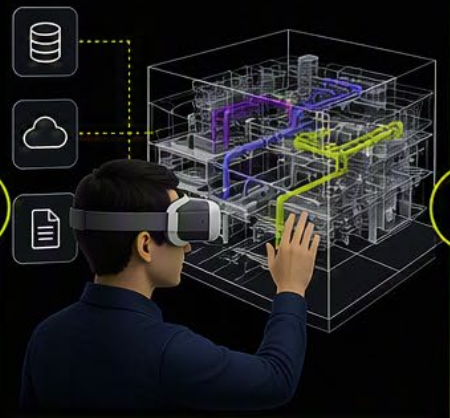
Guide the right process.



- Align stakeholders
- Run structured sessions
- Challenge assumptions

3 Integration

Connect data and models.



- Integrate data & models
- Validate & visualize
- Compare scenarios

4 Follow-through

Turn insight into action.



- Document decisions
- Assign actions & owners
- Track & measure outcomes

Miss one — value drops. Hit all four — XR becomes a delivery strategy.

MONDAY MORNING

Start Small. Decide Clearly. Close the Loop

Your Post-conference XR Checklist

Next week, don't transform everything. Do this once:

- ☑ Pick one spatial pain point.
- ☑ Define one decision.
- ☑ Curate one model zone.
- ☑ Run one structured immersive review.
- ☑ Capture one actionable outcome.