BABOOM
THE BIM WIZARD

How I use AI at work

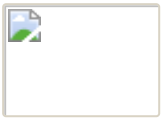
Ahmed Fargaly, Sr. Project Architect / BIM Manager. Real office examples, real results.

05 November 2026
AI use guide V0.1

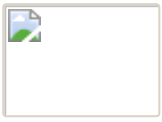
Everything below is work I did on our projects and our standard with AI. Every example on the next pages shows what actually came out. AI does the drafting, reading, counting and repeating; I check the result and sign it.



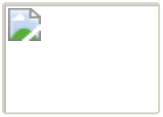
Project tower
The whole tower model built with AI from our CAD, plus context and renders.
page 2



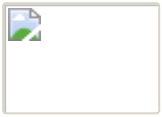
Project tower
Model matched to the DD drawings: plans, roof, landscape, elevations.
page 3



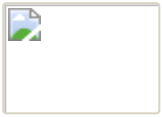
AI connects the tools
AutoCAD, Revit, Rhino, renders, Notion, Outlook in one chain.
page 4



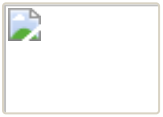
Renders
Model render to photoreal image, building geometry kept exactly.
Nano Banana Pro, ComfyUI



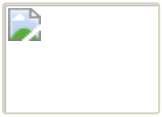
Meeting notes
Meeting recorded, transcribed, summarised with action items per discipline.
Notion AI



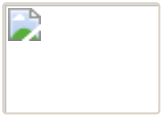
Project emails
Replies drafted in my Outlook house format; I read and send.
Claude + ArchHub



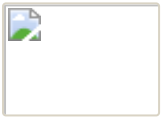
Research
Standards and codes read from the source: 293 gaps found in our standard.
Claude Code



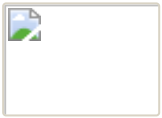
Arabic and English
My Arabic requests and notes turned into clear English, and back.
Claude



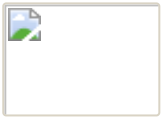
Reports and documents
58 standard documents rewritten, with diagrams, every page checked.
Claude Code



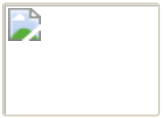
Revit on live projects
Tower B: 19 detail sheets placed, 31/31 views updated, 670/670 curtain-wall grid lines synced.
Claude Code + ArchHub



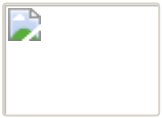
CAD details
426 details pulled from project sheets, cleaned and filed.
Claude Code



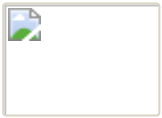
Checklists
540 checks in 9 checklists, each with how to check and the pass rule.
Claude Code



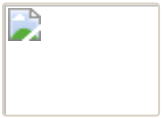
Family library
889 Revit families catalogued with pictures.
Claude Code



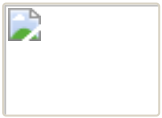
Server clean-up
26 server shares surveyed, read-only, duplicates found.
Claude Code



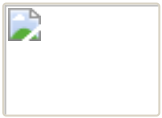
Excel trackers
Trackers and logs built straight from our files.
Claude Code



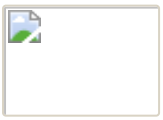
Presentations
The standard rollout deck, one section per department.
Claude Code



Office tools
Our Revit ribbon designed from forum research; render farm on our own PCs.
Claude Code, ComfyUI

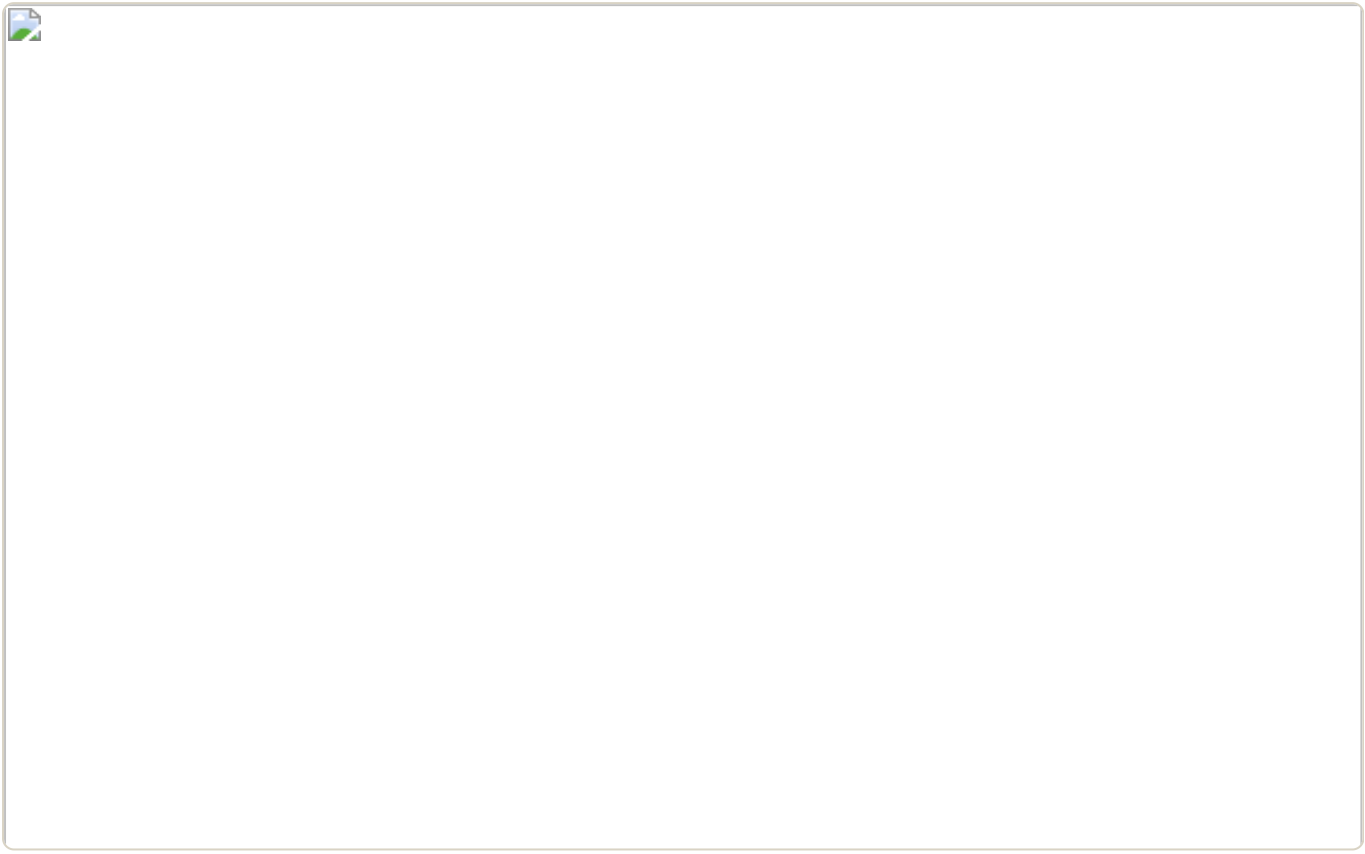


ArchHub
My app: one place where the AI agents work in our programs, together and with us.
page 12



What AI can do next
Nine next uses, each built on something we already have.
page 13

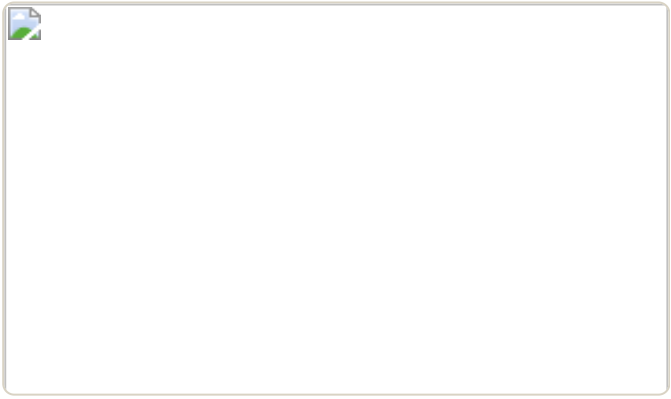
The tower as issued in the drawing set



What AI built in the Revit model

Read every floor's CAD xref and built slabs from the balcony lines, the glass envelope and handrails on levels 02 to 39, one cornice ring per floor (38 rings) that follows the slab, and the club house roof. Placed the model on its exact survey coordinates and built the context: 129 real neighbouring buildings with their heights, water, roads and mangroves.

The model render it produced



D5 render of the AI-built model with its context; finished with AI on pages 5 and 6.

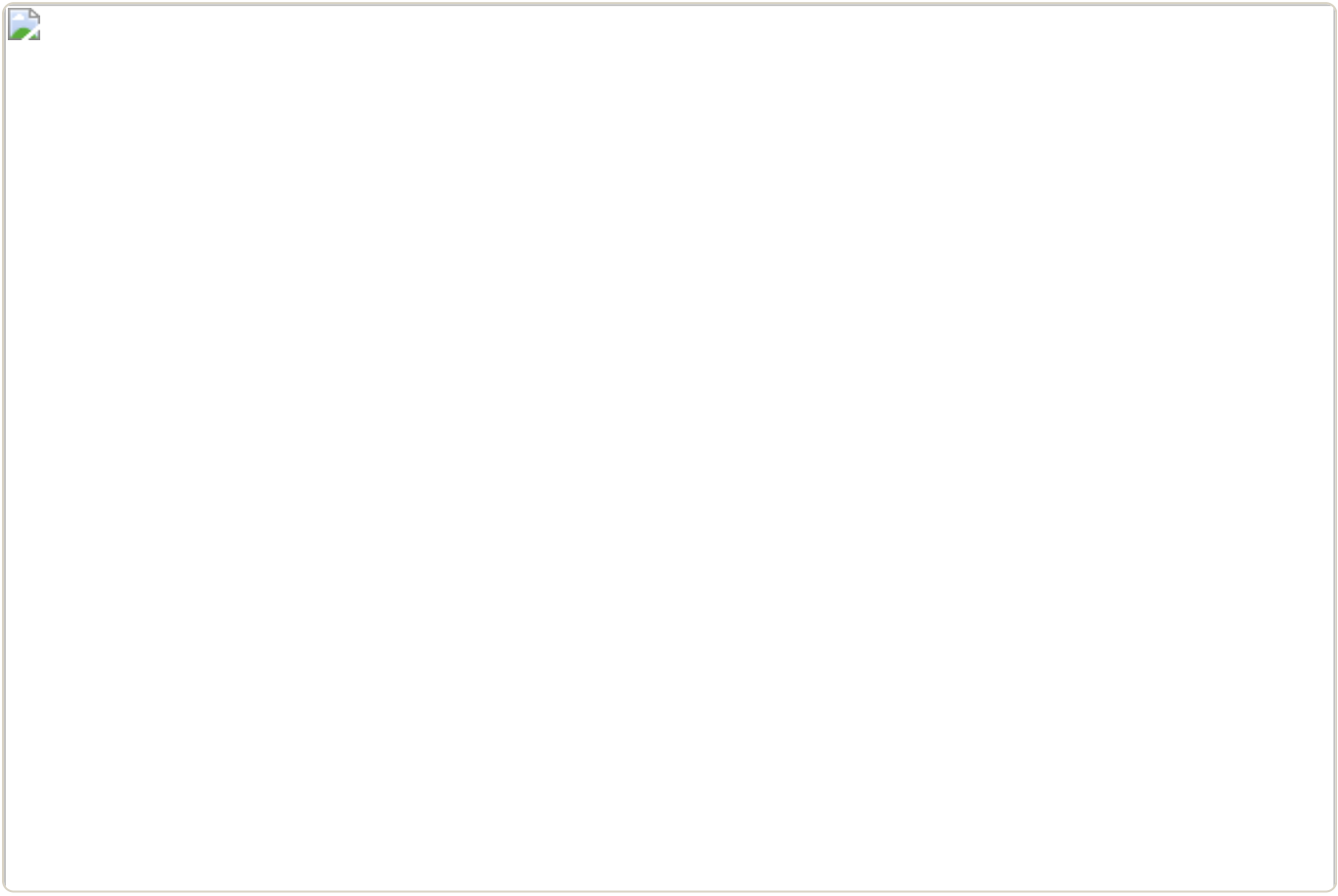
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Project tower: model matched to the DD set

Rhino model against the detailed design AutoCAD drawings, June 2026

Tools
Claude Code + ArchHub (Rhino, AutoCAD)

The tower



What AI did

Picked the latest sheets out of hundreds of dated copies, read the DWGs without opening AutoCAD, and placed the ground floor, roof, landscape, plot limit and all four elevations in the Rhino model on one measured transform, each on its own colour-coded layer. Checking each elevation face-on against the model, it found the west elevation drawn mirrored and corrected it. The model was then edited against these references.

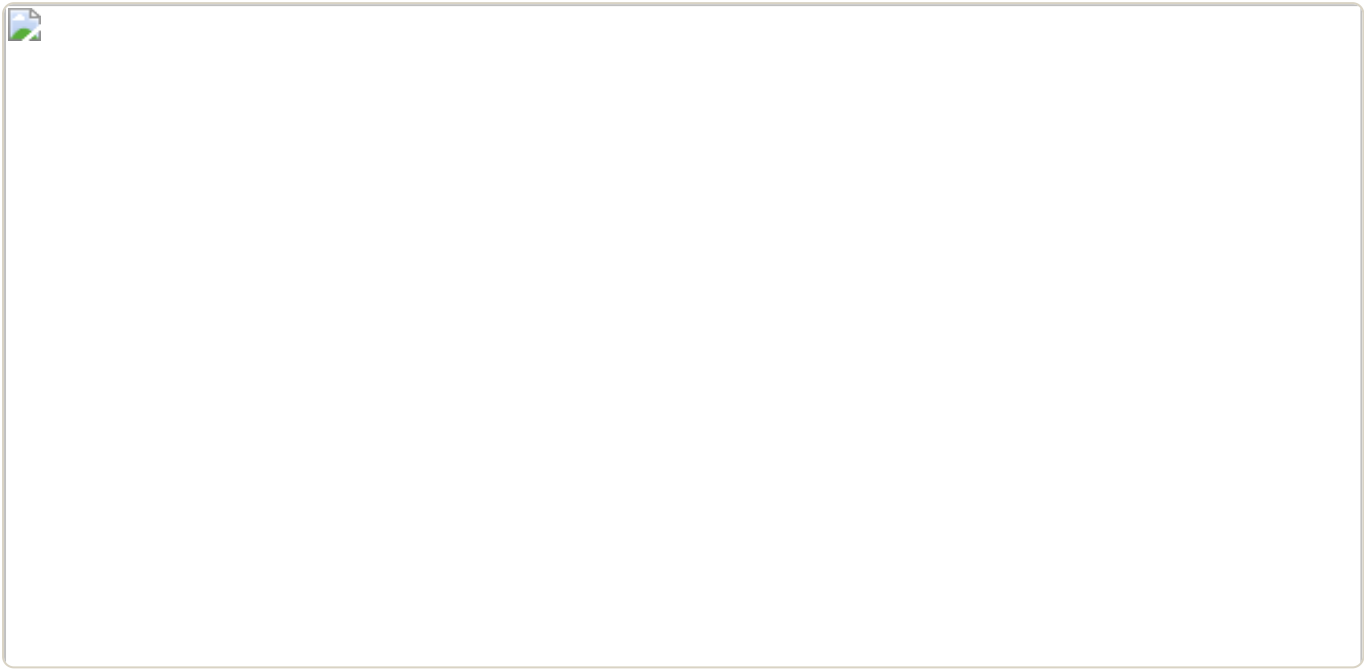
AI connects the tools

Work that used to be re-typed or re-drawn between programs

Through ArchHub connections

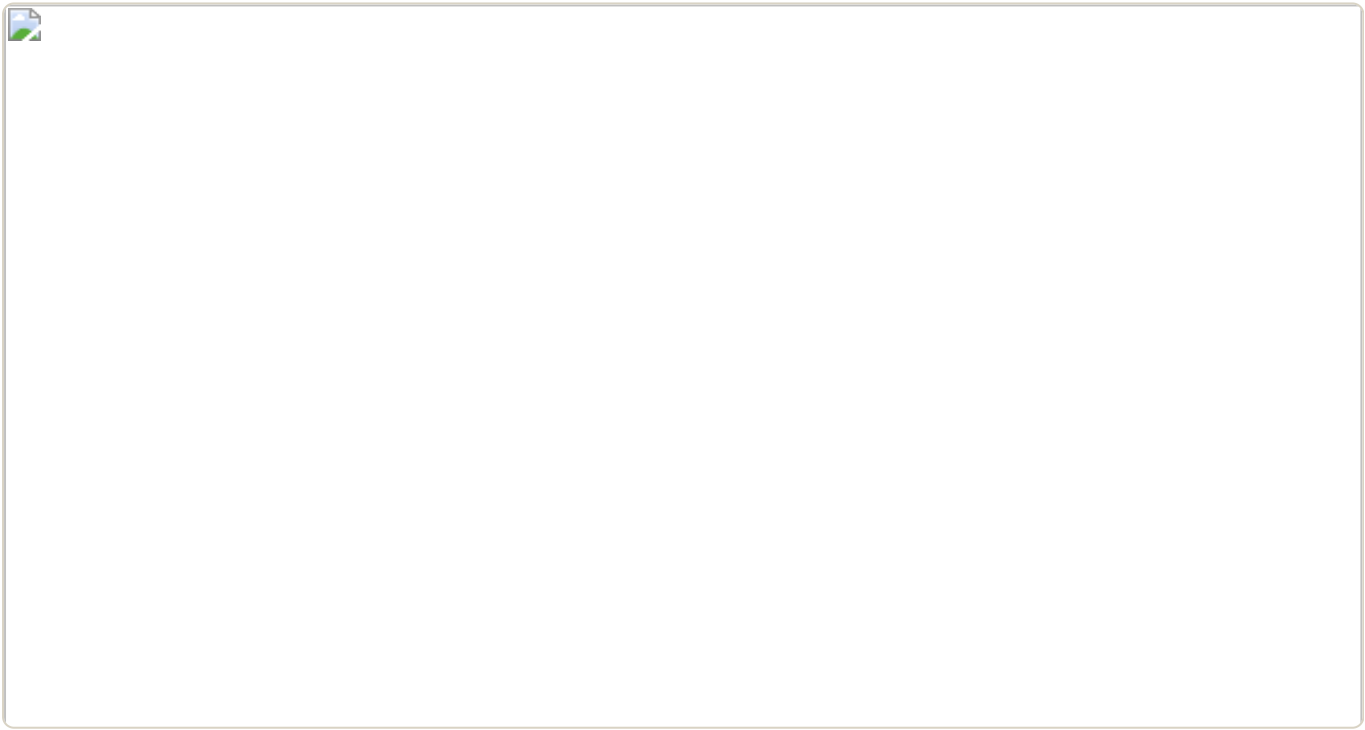
Chain	Before	After	Project
AutoCAD to Revit		CAD facade details placed on 19 Revit sheets, accepted; 31/31 views updated by delta	Tower B
CAD floor xrefs to Revit model	39 floors of CAD plans	Slabs, envelope, handrails and 38 cornice rings modelled	Project
AutoCAD to Rhino	The DD DWG set: plans, roof, landscape, elevations	Reference curves in the Rhino model; mirrored elevation fixed	Project
Map data to Revit	Open map data of the island	129 real buildings with heights as the model context	Project
Revit to render to AI image			Project
Design architect's Revit to ours	Their curtain-wall grid in a linked model	670/670 grid lines synced into our model	Tower B
Meeting to actions to email			Tower B
Server files to catalogues and Excel	Families and details scattered on the server	889 families and 426 details in searchable catalogues; trackers in Excel	Office

Before: the raw D5 render of our model



After: AI on top of the same render

The render goes in as the base image, so the tower, floors and podium stay exactly as modelled; AI adds light, materials and a believable context.



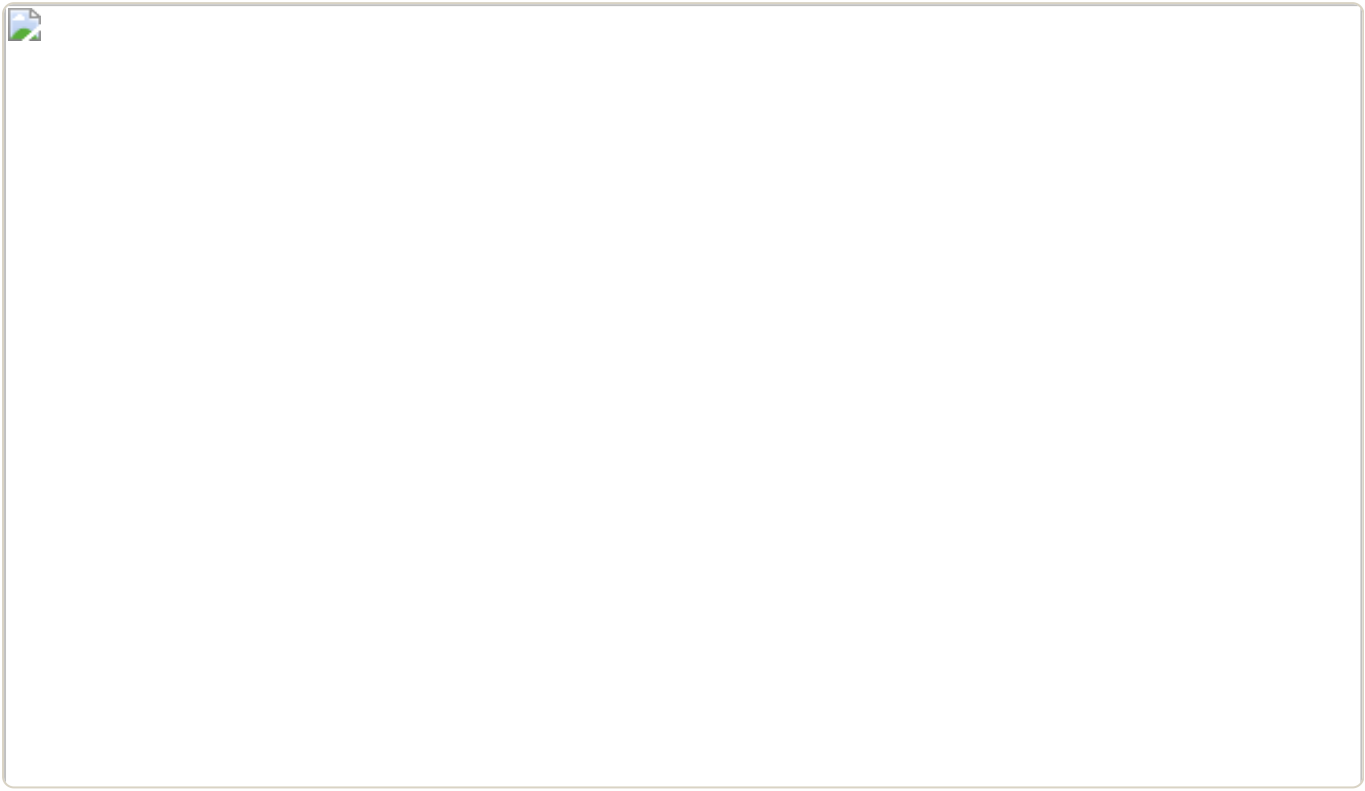
Rule I learned: never let AI draw the building from a text prompt; it redesigns it. Always give it our render as the base.

Renders: the whole set

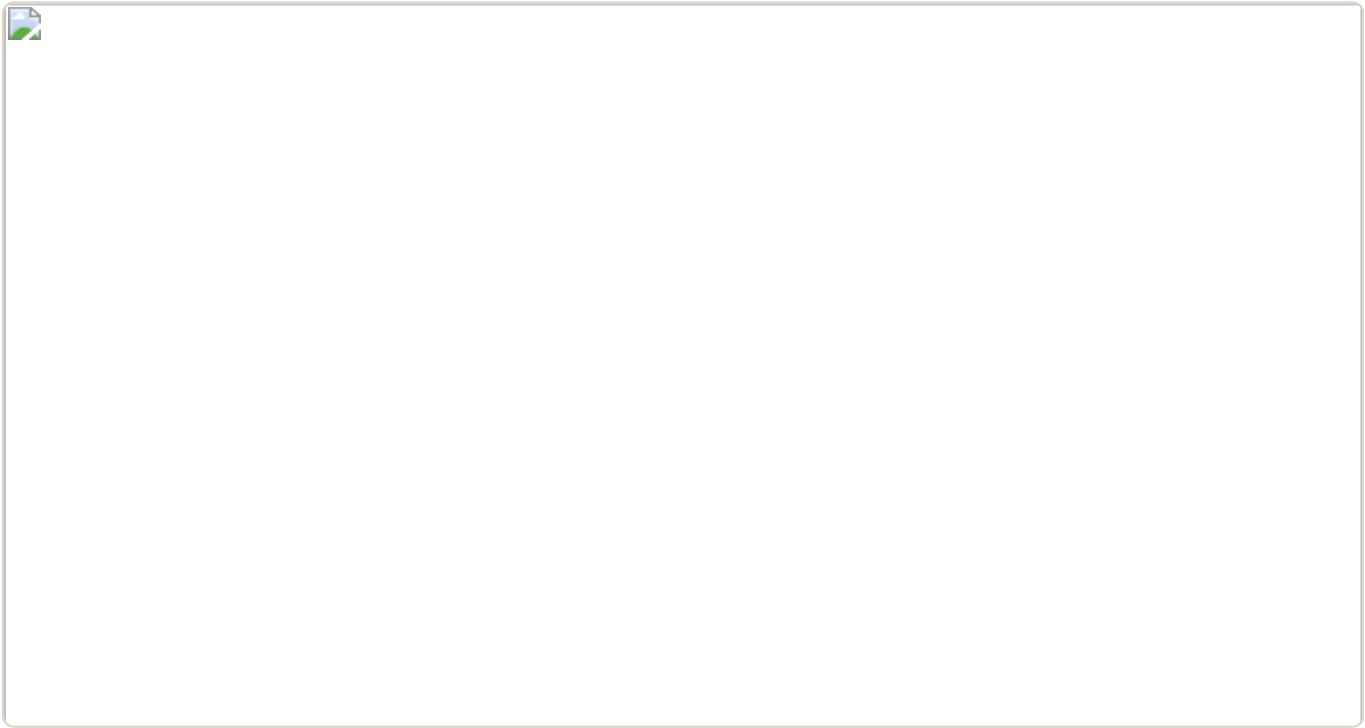
11 camera angles exported from the model, then finished with AI

Office PCs
ComfyUI render farm for batches

Before: the 11 model angles

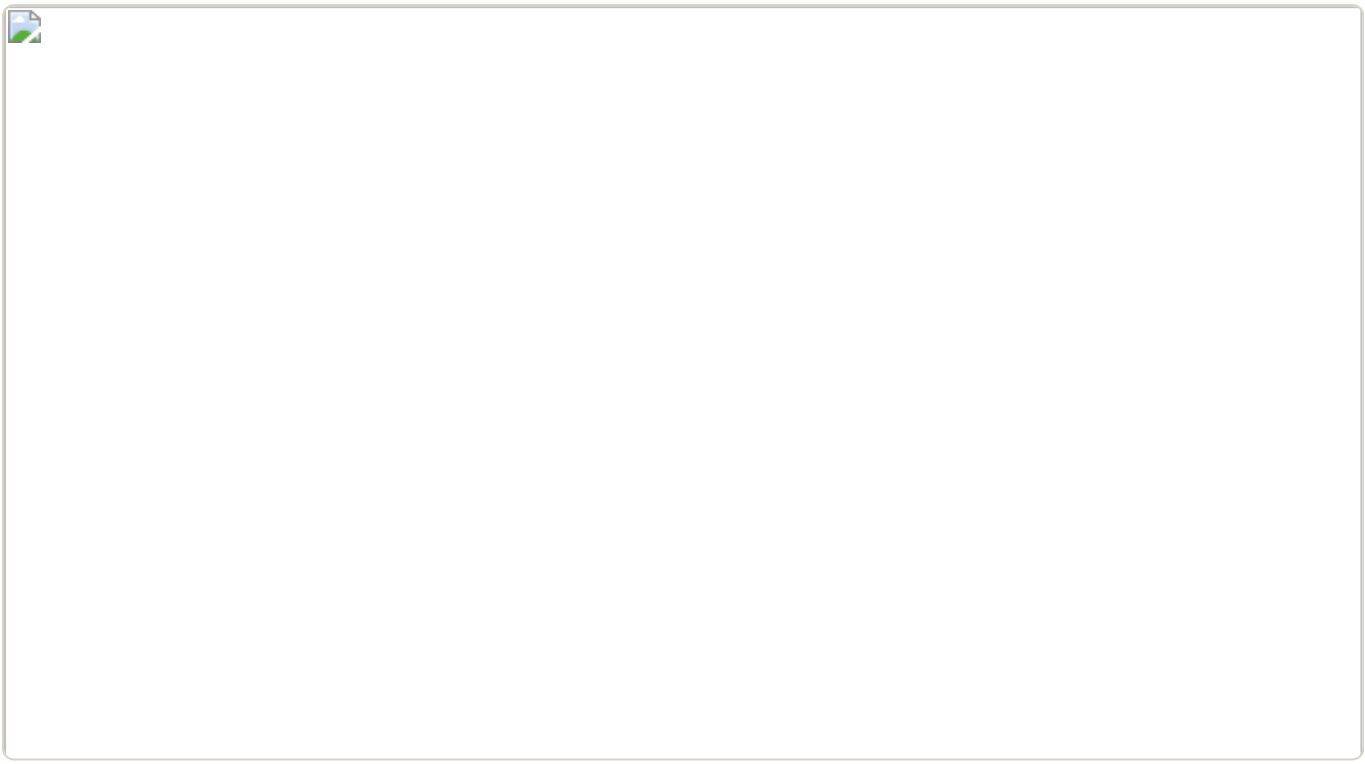


After: four of the finished images



Meeting notes in Notion

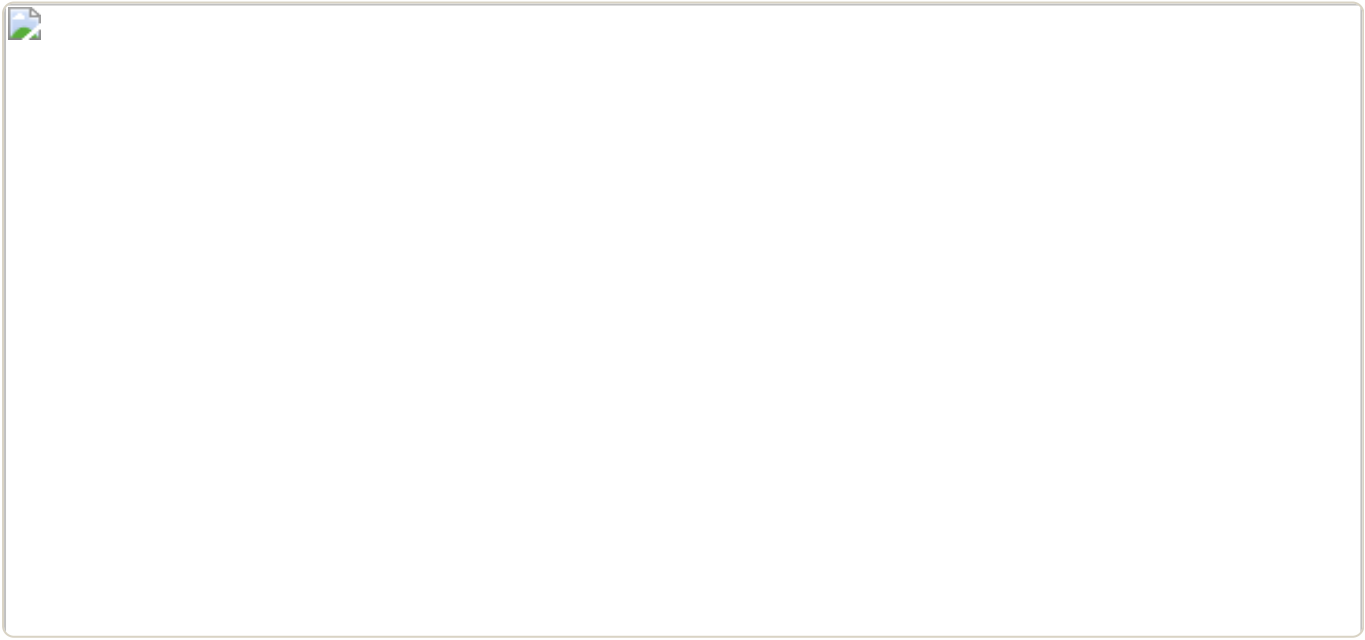
I record the meeting in Notion; its AI writes the transcript, the summary and the action items per discipline. Tower B 50% concept coordination: 27 action items, each linked to the moment it was said.



Notion AI meeting notes: every coordination meeting since November 2025, searchable.

Project emails in my house format

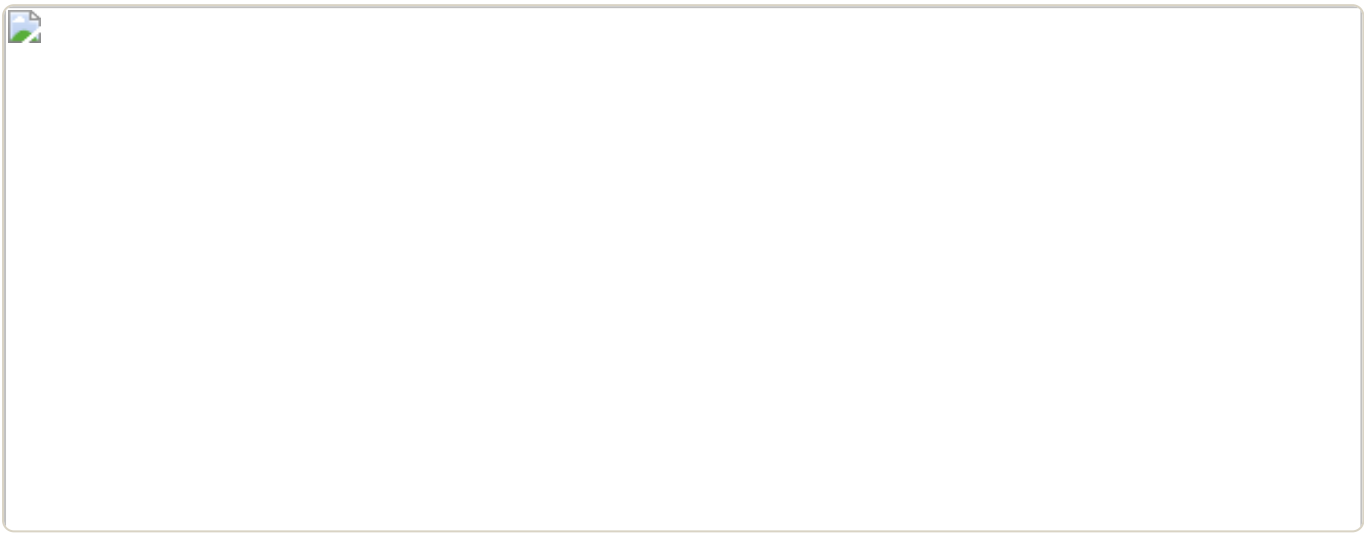
AI reads the thread and drafts the reply inside my Outlook signature, subject in capitals, everyone on the thread copied. I read it and press Send.



Claude through ArchHub (Outlook connected)

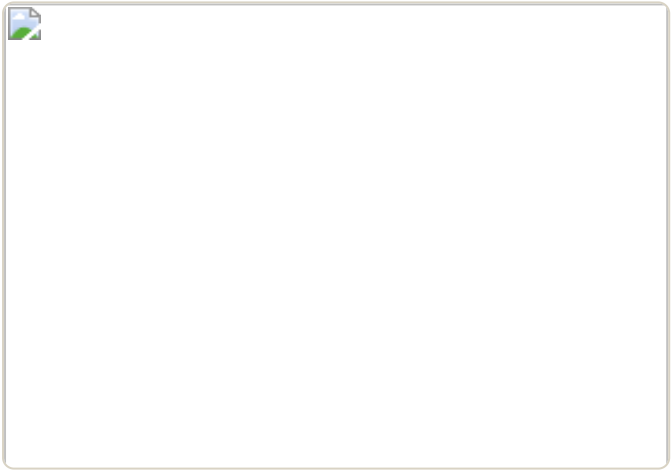
Research: our BIM standard against the latest standards

AI read all 43 documents of our standard against ISO 19650, buildingSMART, Dubai and Abu Dhabi sources: 293 gaps, each with its source quote.



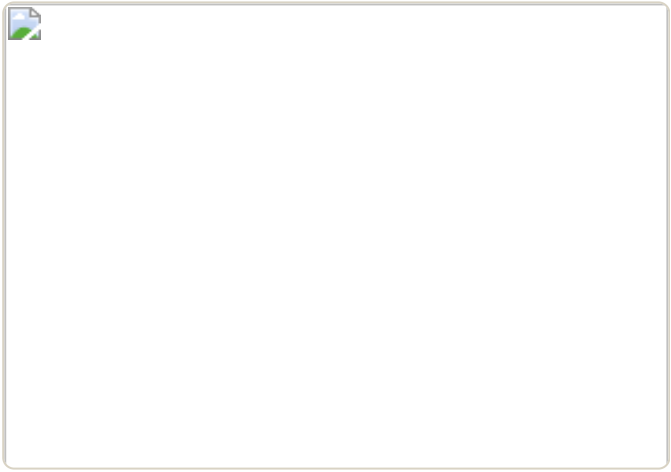
Arabic to English

My request in Arabic, written up in English at the top of every report; all 293 gaps then fixed.



Reports and documents

58 Word documents of the standard rebuilt (461 pages), with diagrams like this one.



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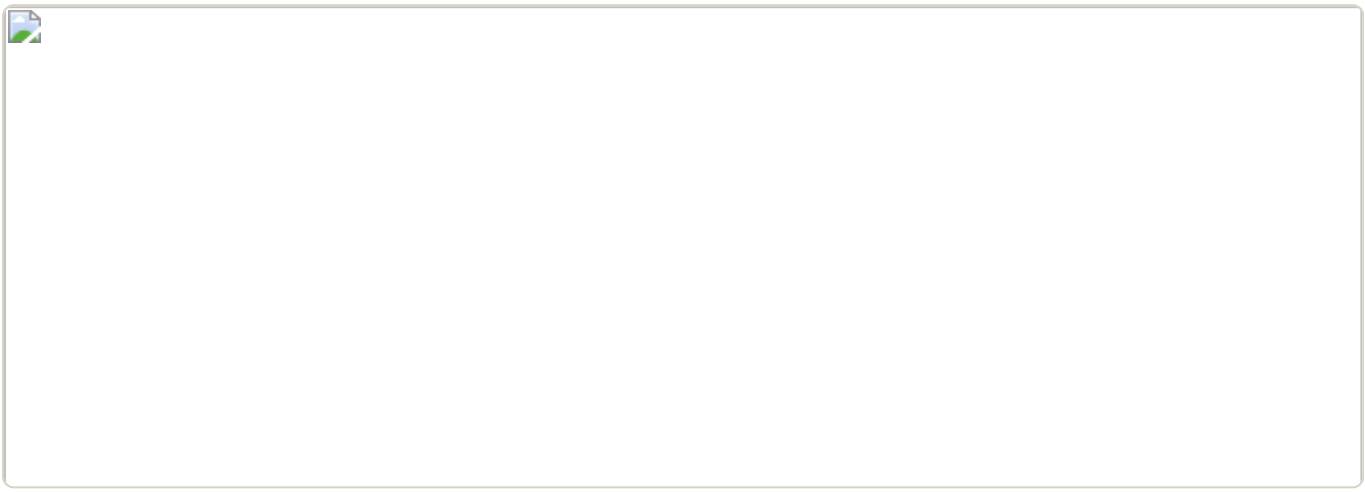
Revit and CAD on our projects

Repetitive model and drawing work, done by AI, checked sheet by sheet

Tools
Claude Code +
ArchHub for Revit, AutoCAD

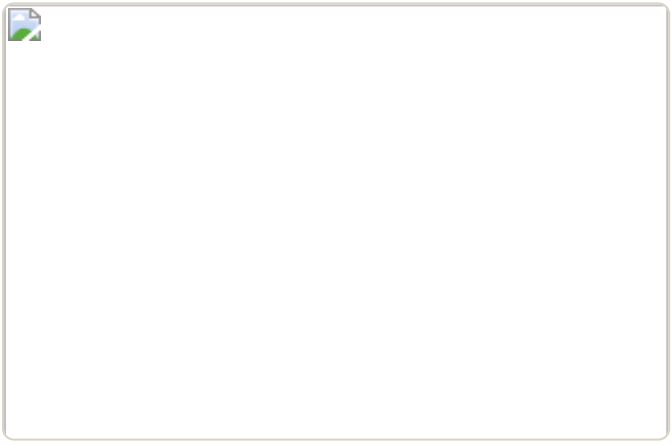
Tower B facade: CAD details into Revit, accepted

AI placed the CAD facade details on 19 Revit sheets (accepted), updated 31/31 detail views with the same dimension counts before and after, and synced 670/670 curtain-wall grid lines from the design architect's model. Then it studied how both towers split CAD and Revit.



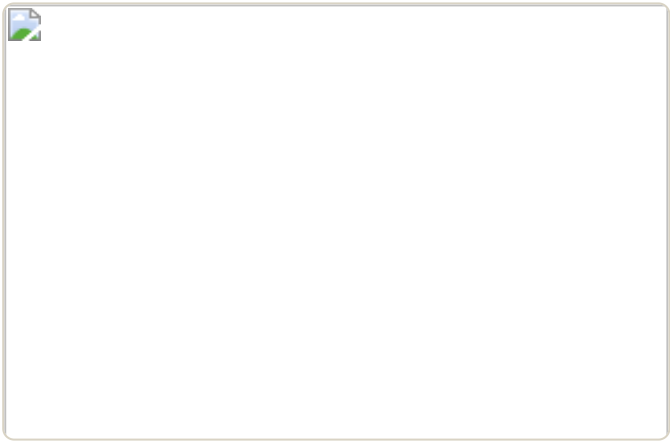
426 CAD details filed

Pulled from our project CAD sheets, cleaned, duplicates removed, filed by CSI MasterFormat.



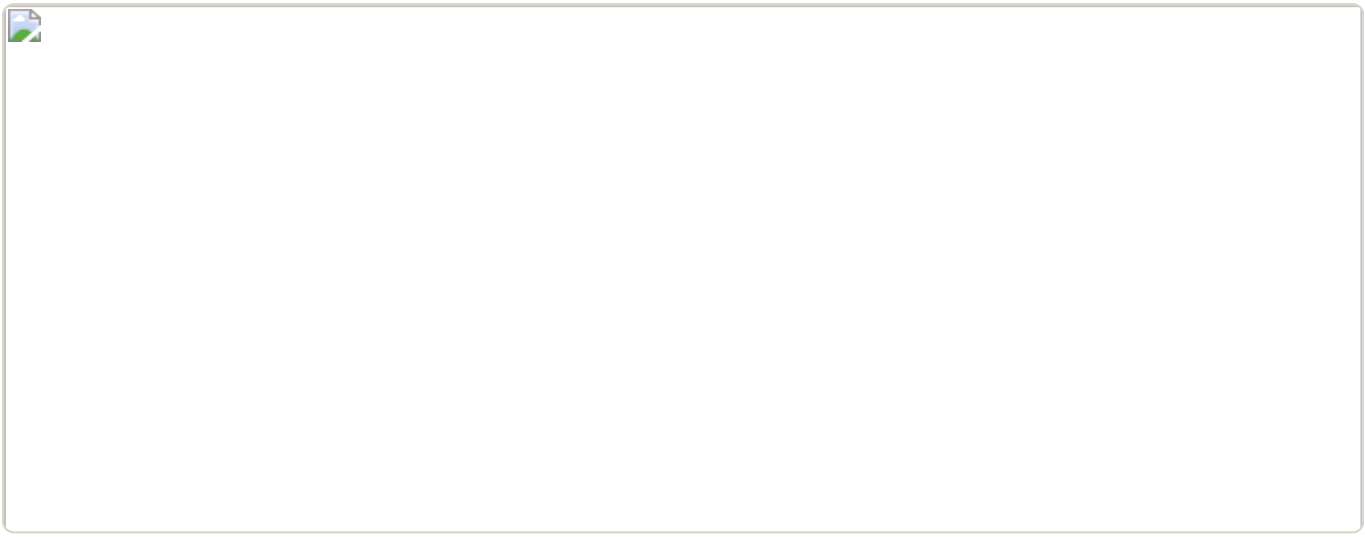
540 checks for our models

Nine checklists; each check says how to check it and when it passes.



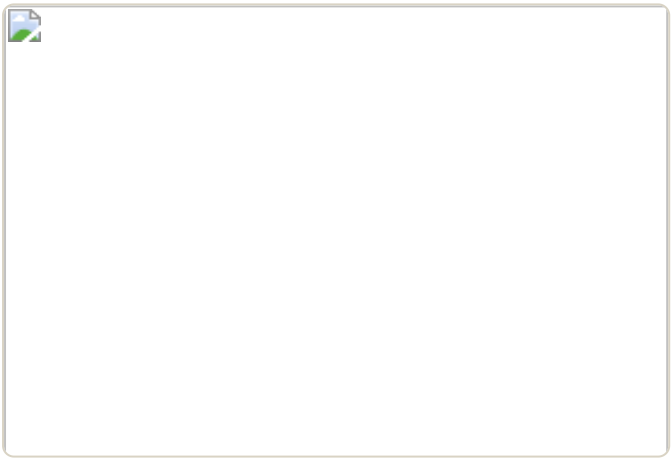
One front page for the whole standard

Standards, templates, libraries, training and checklists on one page that opens from the server.



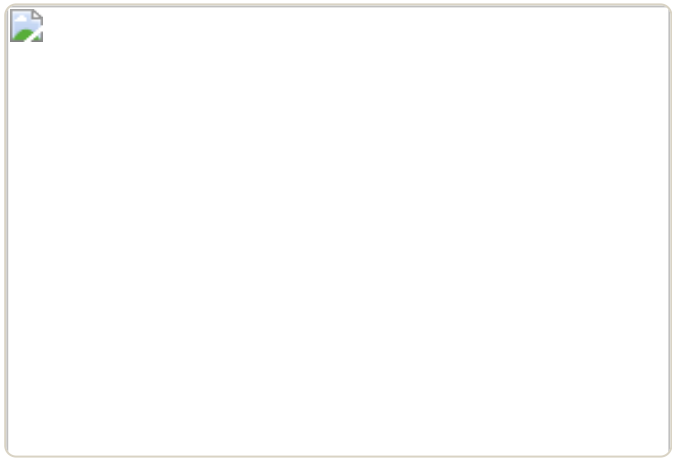
889 Revit families with pictures

Catalogued, renamed and classified; search and copy the path into Revit.



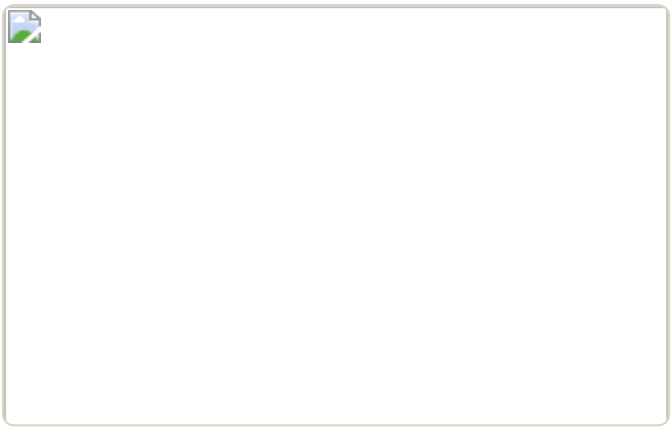
26 server shares surveyed

Read-only tour of the office servers: what belongs in the standard and where the duplicates are.



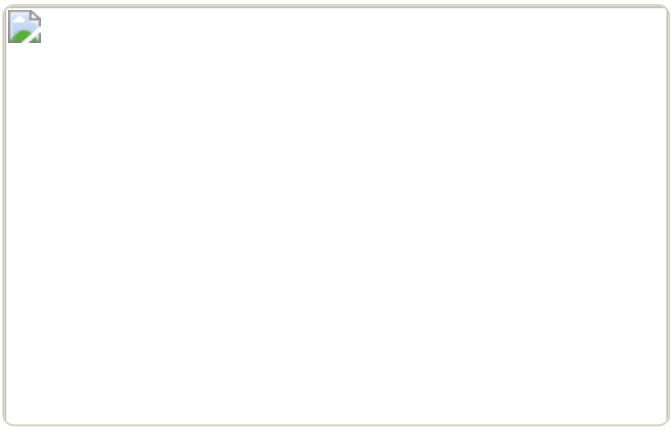
Excel trackers

The rollout tracker: what each department tries and their feedback.



Presentations

The standard rollout deck, one section per department, rendered and checked.



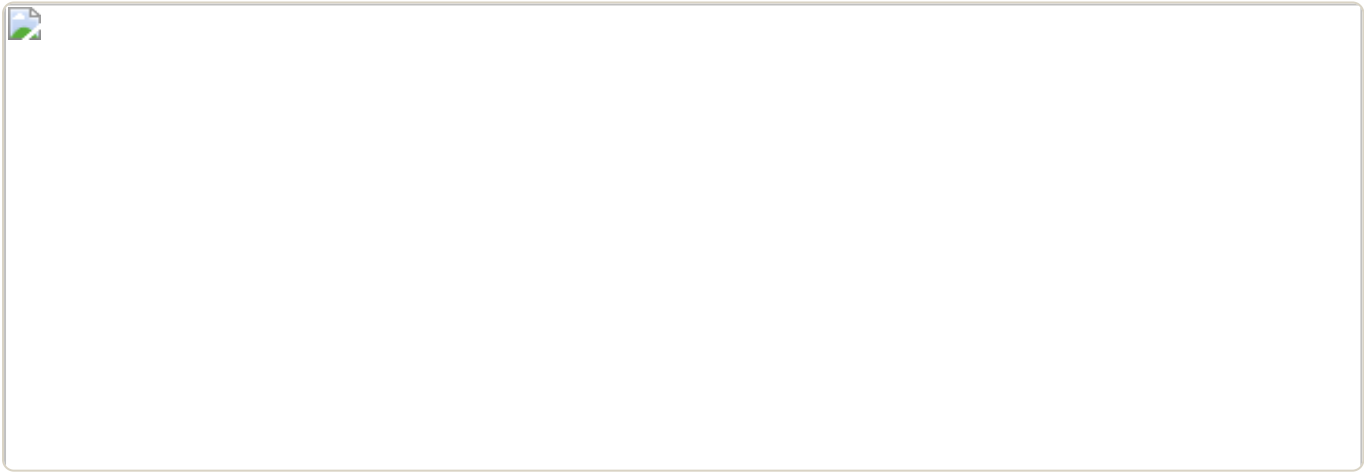
Our own Revit ribbon, designed from forum research

AI read the vendor pages and user forums for the tools we pay for and designed one office ribbon: 141 buttons.



Render farm on our own PCs

Idle office PCs with a graphics card render image batches together; the models live on the server, nothing leaves the office.



ArchHub connects the AI agents to the programs we work in: Revit, AutoCAD, Excel, Word, Outlook and Notion. The agents work together in one room, the Workshop, where we see what each one is doing and talk to them. Nothing changes our real files until we approve it, and ArchHub re-reads the file to check the change really happened.

The Workshop: agents and people on one task

Each task has its conversation, its agents (here Claude and Codex) and the people on it; meeting input turns into decisions and owned tasks.



Workflows as blocks on a canvas (the canvas design)

Like Dynamo or Grasshopper: blocks wired together. Here a door schedule, its width and a filter: 3 of 4 doors are 1000 mm or wider. A workflow is saved as a file and run again in one click.



What it already did on office work

The project emails on page 7 were drafted through ArchHub's Outlook connection. The Tower B Revit work on page 9 (19 sheets, 31/31 views, 670/670 grid lines) ran through ArchHub's Revit connection.

What AI can do next in our work

Each one builds on something we already have

One line each
what it is, what it builds on, what it saves

Next use	Built on what we already have	What it saves
Trackers that fill themselves	Outlook is connected; Tower B sheet lists are already read from Revit	Retyping sheet lists, transmittals and email logs
Meetings to owned actions	Notion AI notes already list the actions (27 in one Tower B meeting)	Writing minutes and chasing each action by hand
Specs from our master spec	The office master specification found on the server (828 files by division)	Copy-paste editing of every project spec
Authority and code checks	The codes library; rules like the DoT ramp length; the submissions checklist	Measuring by hand before each submission
CAD and Revit layer fixing	The two-tower CAD/Revit study: xref and layer checks already specified	Hunting wrong layers and broken xrefs
Render options from the model	The render farm on our PCs and the before/after method on page 5	Waiting days for early design images
Batch model checks	The 540 checks with how to check and the pass rule	Opening every model to check it before issue
Answering client comment sheets	Our client-comment trackers by email (Tower A 100% SD responses)	Drafting each response and tracking its status
Standard watch	The gap audit method: our standard read against ISO, Dubai and Abu Dhabi	Missing a new authority circular or edition

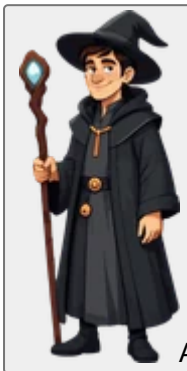
> Same rule for all of them: AI prepares, counts and drafts; the engineer checks the real file and signs.



BABOOMThe BIM wizard

×

Ask me about the standard Ask me about the standard Ask



Ask BABOOM