



How a commercial cleaning-services bidder partnered with CarbonWeb to build an internal agentic platform that uses Claude to read building blueprints and automatically generate a room-by-room breakdown of room types and square footage, turning a manual, CAD-based process into an automated one.

THE CLIENT

Facilities Pal LLC bids on cleaning-services contracts for large commercial facilities such as hospitals. Winning and pricing those contracts depend on an accurate room-by-room space inventory, square footage, and room type for every space in a building, which the team previously had to build by hand from CAD drawings.

THE CHALLENGE

Manually extracting a space inventory from blueprint PDFs was slow and labor-intensive, and it sat squarely on the critical path of every bid. To bid faster and on more contracts, Facilities Pal needed to automate the extraction process without sacrificing the accuracy a hospital-scale bid depends on, and set up a workflow their team could review and trust in the tools they already use.

CarbonWeb solution

A four-phase rollout building an internal agentic platform inside Facilities Pal's existing monday.com workflow

1

PHASE 1 | Jul 2026
AI strategy and vendor evaluation

CarbonWeb evaluated Claude against Kreo (an AI-powered construction takeoff and estimating tool that reads blueprints to measure quantities and areas) on sample hospital blueprints. Claude was selected and confirmed with the customer on August 14.

2

PHASE 2 | Aug–Sep 2026, complete as of Sep 11
Extraction pipeline build

CarbonWeb built the extraction pipeline, sheet to regions to rooms, using the Claude Agent SDK, and integrated it directly into the customer's monday.com account. Blueprint PDFs uploaded to a Job in monday.com trigger a Railway-hosted service; Claude, via the Anthropic API, calibrates each sheet, splits it into regions and then into rooms with room type and square footage, and writes the results back to monday.com, with per-run progress and API cost logging built in for admin oversight.

3

PHASE 3 | Late Sep–Oct 2026, targeting end of October 2026
Bidding interface build

CarbonWeb is building the bidding interface directly in monday.com: mapping rooms to cleaning tasks and productivity indices per room type, generating staffing and shift plans, and producing bid sheets and quotes in monday CRM, with admin approval and field validation at each stage, and interfaces for users to manage and edit extracted spaces directly.

4

PHASE 4 | From Nov 2026
Cost optimization and licensing

CarbonWeb will tune production concurrency settings and adopt the Batch API to optimize running costs and will license branded copies of the platform to Facilities Pal's affiliated companies.

SERVICES DELIVERED

- AI Strategy & Vendor Evaluation
- Agentic Platform Build
- Systems Integration (monday.com)
- Cost Optimization & Licensing

MEASURABLE OUTCOME

- THE COST TO PRODUCE EACH BID IS 82% LOWER**
About \$3,600 less to produce each bid: 82 estimator hours (\$4,430) become 13 hours plus \$100 of compute (about \$800).
- ESTIMATOR CAN PRODUCE 6X MORE BIDS A YEAR**
Estimator can now produce an average of 115 bids, 6 times more compared to 18 a year pre-Claude.
- BIDS PRICED ON TRUE FLOOR AREA, AVOIDING ERRORS OF UP TO 30%**
Manual extraction of square footage can be 15–30% off, which is more than a cleaning contractor's typical 6–15% margin. Measuring each room removes that error. On our reference drawing, the real area was 11% below what the sheet said.