Architecture Discovery Case Study

How a Two-Day Discovery Found $725,000 in Annual Lost Profit Inside a Record Year

Discovery case study. All figures come from the Discovery documents. 2026 figures are full-year projections prepared during the Discovery. Client identity, names, locations, and identifying details have been removed.

Business Profile at Discovery

Industry: Architecture, Engineering and Construction (AEC)
Sub-Industry: Architecture and design services
Region: Mountain West and Great Plains (two offices in two states)
Years in Business: Nearly 30
Revenue, Trailing Fiscal Year (2025): $3.8M
Revenue, Current Year Projection (2026): $7.0M
Net Profit, Trailing / Projected: 18.3% / 19.7%
Employee Count: 18 (3 owners, 15 staff)
Number of Owners: 3 (one majority owner, two minority owners)
Discovery Format: Two-day Discovery with financial, operational, compensation, and survey analysis
Purpose of Discovery: Ownership had set one-, three-, and five-year goals but had no roadmap to reach them. They asked Cogent to identify what they did not know, benchmark the firm against successful AEC firms, and quantify overlooked profit opportunity.

Discovery Snapshot

Identified Annual Lost Profit: $725,000 (10.4% of projected 2026 revenue)
Current vs. Potential Net Profit: 19.7% vs. 30.1%
Ownership's Pre-Discovery Estimate of the Gap: About $50,000 per year
Largest Single Driver: Non-standard estimating and no project time tracking, combined with unpaid client scope creep
Indicated Value Gap: Current value gap of $0.9M to $2.3M between as-is and corrected margin. Total lost profit over the last four years of $3.1M (Prime Performance model, 2023 through projected 2026).
Sources Analyzed: Four years of financial statements, two years of tax returns, payroll roster, profit plan, bonus and distribution workbooks, three owner self-assessments and goal worksheets, and a confidential survey of all 15 staff (100% response)

1. About the Business

The client is a two-office architecture firm founded nearly 30 years ago. The founder retired roughly two years before the Discovery, and the firm is now owned by three architects: one majority owner and two minority owners. Two owners work from one office and the third leads the second office in a neighboring state. All three remain directly involved in design, project production, and technical decisions.

The firm's work includes multifamily, medical, and commercial projects, and its growth plan calls for larger and more complex projects. Revenue grew from $2.8M in 2023 to $3.8M in 2025, and the Discovery projection puts 2026 at $7.0M, an 82% increase in one year. Net profit moved from a 2.2% loss in 2023 to 9.7% in 2024, 18.3% in 2025, and a projected 19.7% in 2026. Demand is not the constraint. The firm has a strong reputation, repeat clients, and more work than it can comfortably absorb.

2. What Ownership Believed Going In

Pre-Discovery figures come from the self-assessment completed during the sales process (scale of 1 to 10).

Ownership described a healthy, profitable firm with one clear weakness: strategic planning. They rated their measurement systems and profitability as strengths, estimated net profit at about 18% against a 20% target, and valued the gap at roughly $50,000 per year. The estimate of current margin was accurate. The estimate of the gap to potential was low by a factor of about 14.

Area	Pre-Discovery Self-Assessment	Discovery Finding
Profitability	8 of 10. Net profit estimated near 18% vs. a 20% target. Gap valued at about $50,000 per year.	Potential net profit of 30.1%. Lost profit of $725,000 in 2026 and $3.1M across four years.
Measurement and Control	8.5 of 10. New time and project tracking software. Utilization target near 68%.	The project profit report excludes overhead. 120 of 154 projects (78%) sit below the firm's own 2.45x breakeven multiplier while reported as profitable. All three owners confirmed no budget is used for cost control.
Operations and Process	4 of 10. SOPs, onboarding, and delegation in progress.	Labor productivity averaged 56.0% against an 85.0% standard. 59 of 154 projects consumed more than 100% of contract value.
People and Organization	6.5 of 10. Progress on delegation. Young workforce needs training.	Payroll at 92.2% of the AIA median. The 2026 salary plan gives no raises to current staff. The bonus formula weights overtime at 24% and project profitability at 0%.
Strategic Planning	1 to 2 of 10. Goals exist without a roadmap.	The three owners named three different net profit targets: 30%, 15 to 20%, and 10%.
Sales and Business Development	5.5 of 10. Room to improve predictability and forecasting.	No written sales plan. All three owners rated return on promotional spend as unknown. Bid win rate not tracked.
Quality of Life	7 of 10. Workload described as manageable.	Every personal goal on all three owner worksheets listed workload, deadlines, or delegation as an obstacle.

3. Discovery Scope and Method

The Discovery combined financial modeling with independent instruments completed by both owners and staff. Neither group saw the other's answers.

- **Financial analysis:** comparative income statements and balance sheets for 2023 through projected 2026, breakeven, working capital, cash conversion, labor effectivity, and business failure potential (Z-score).
- **Prime Performance model:** each cost line benchmarked against the firm's own best historical year, not an outside industry ideal. The subcontracted work benchmark used 2024 (38.8%), not 2025 (31.0%), which keeps the headline figure conservative.
- **Management reporting audit:** the profit plan, billing rate and overhead model, bonus workbook, and distribution workbook reviewed formula by formula, plus billing rates compared with national and state benchmarks.
- **Ownership instruments:** three 144-point management self-assessments and three goal worksheets, completed independently on the same day.
- **Employee survey:** confidential, 16 scored items plus written responses, completed by all 15 non-owner staff across both offices.

4. Key Findings

Top findings by category. Quantified impacts from different analyses overlap and should not be added together.

Profit Engineering

Finding	Evidence	Quantified Impact
Non-standard estimating and no time tracking	No standard estimating method and no project time tracking. Owners named poorly scoped projects and unpaid scope creep, and one wrote that the firm tends to over-deliver and over-produce.	Primary driver of the $725,000 gap between current and potential profit. Subcontracted work rose to 49.0% of revenue by deliberate, lower-margin choice and is not the problem on its own.
Project profit calculated without overhead	The project ledger defines profit as billings minus labor. The firm's own overhead model sets breakeven at 2.45x labor.	120 of 154 projects below breakeven. Realized multiplier of 1.69x. $3.5M cumulative shortfall to breakeven across 2022 to 2025 projects.
Bonus pool set on an outdated profit figure	The pool was set on a December 10 estimate. Net income fell 31% by December 29 and the pool was not recalculated.	$129,750 paid in bonuses, equal to 38.9% of final net profit vs. the 25% policy

Metrics and Measurement

Finding	Evidence	Quantified Impact
Planning models out of date	Billing rate and overhead model last updated October 2022. Profit plan last updated July 2023.	Both used to run a firm whose revenue has since more than doubled
2026 profit plan overstates capacity	Plan includes a departed architect and books two interns for more hours than they will work.	About $413,000 of billable capacity that does not exist. Projected revenue still exceeds the plan's maximum output by $1.4M.
No monthly close	Four different 2025 profit figures, from $662,000 to $440,000, were used over eight months to calculate bonuses and distributions.	Bonuses and owner distributions paid on figures that later changed

Operations

Finding	Evidence	Quantified Impact
Uncontrolled redesign and rework	9 of 15 employees raised it unprompted. Two of three owners marked poor quality control resulting in fixing and redoing.	59 of 154 projects exceeded 100% of contract value. 98.2% of contracted fee consumed vs. 86.7% billed.
Low labor productivity	Monthly sales per payroll dollar ranged from $2.04 to $7.48 over 12 months.	56.0% average productivity vs. an 85.0% standard. $364,000 in excess payroll cost.
Undefined project front end	Projects start without a fixed scope, budget, or decision hierarchy. Value-engineering changes arrive near 99% completion.	A primary driver of the rework above. Not separately quantified.

People and Organization

Finding	Evidence	Quantified Impact
No management layer below ownership	All three owners marked that management performs routine work a less expensive employee should handle.	Project management duties assigned to production staff without a change in title or authority
Compensation below market	Payroll of $1.36M vs. an AIA median of $1.47M. The 2026 salary plan shows $59,000 in increases, all of it new-hire salary.	Pay raised unprompted in three survey answers, including a statement that some staff are looking
Incentives reward hours, not margin	Bonus points: company impact 30%, overtime 24%, seniority 22%, base 19%, utilization 5%, project profitability 0%.	The highest overtime score went to a principal with 52.8% utilization

Strategic Planning

Finding	Evidence	Quantified Impact
No agreed profit target	Owners named 30%, 15 to 20%, and 10% net profit as the goal.	Two of three targets are at or below what the firm already achieved in 2025
Management systems rated ineffective by ownership	Self-assessment scores of 52, 68, and 72 out of 144. The effective threshold is 90.	No owner rated the firm effectively managed. The baseline checklist found fewer than 15% of basic management systems in place.
No budget, no valuation, retirement planned	All three owners marked no budget and no completed valuation. The majority owner plans to retire.	As-is indicated value of $2.0M to $4.8M with no succession plan

Business Development

Finding	Evidence	Quantified Impact
No sales or marketing plan	No written sales plan, no target account list, and no owner assigned to business development.	Return on promotional spend unknown (all three owners)
Win rate not tracked	Ownership knows the firm loses bids it should win but has never measured the ratio or reviewed the losses.	Not quantified
Billing rates are not the constraint	Rates sit at or above national ranges at every level. Architect salaries in the two states differ by 0.2%.	Pricing ruled out as the primary cause of the margin gap

5. Quantified Opportunity

Lost Profit by Year (Prime Performance Model)

Year	Revenue	Actual Net Profit	Potential Net Profit	Lost Profit
2023	$2,837,000	($64,000) / -2.2%	$855,000 / 30.1%	$918,000
2024	$3,365,000	$328,000 / 9.7%	$1,014,000 / 30.1%	$686,000
2025	$3,829,000	$700,000 / 18.3%	$1,450,000 / 37.9%*	$750,000

Year	Revenue	Actual Net Profit	Potential Net Profit	Lost Profit
2026 (projected)	$6,981,000	$1,379,000 / 19.7%	$2,103,000 / 30.1%	$725,000
Four-year total		**$2,343,000**	**$5,422,000**	**$3,079,000**

At the 2026 projection, the lost profit equals about $13,900 per week.

**Potential net profit holds each cost line to the lower of the firm's actual result or its 2024 benchmark. In 2025, subcontracted work ran at 31.0% of revenue, below the 38.8% benchmark, so that year's potential reflects the lower actual cost.*

Supporting Indicators

Each indicator measures the same underlying problem from a different angle. They overlap and are not additive.

Analysis	Benchmark Used	Indicated Annual Impact
Excess subcontracted work cost (last 12 months)	85% productivity standard	$717,000
Excess payroll cost (last 12 months)	85% productivity standard	$364,000
Total labor effectivity	Best year: $1.50 revenue per labor dollar (2025)	$318,000
General and administrative effectivity	Best year (2026 projection)	$0

Indication of Business Value

Scenario	Basis	EBITDA	Value Range (2.5x to 6.0x)
As-is	3-year average revenue of $4.7M at 17.0% margin	$802,000	$2.0M to $4.8M
Corrected	3-year average revenue at 25.0% margin	$1,181,000	$3.0M to $7.1M
Optimized	$10M revenue capacity at 28.0% margin	$2,800,000	$7.0M to $16.8M

The difference between the as-is and corrected scenarios, $0.9M to $2.3M, is the value at stake from margin alone.

6. What Was Working

The Discovery also confirmed real strengths, which is why the margin gap was easy to miss.

- General and administrative costs were well controlled. The effectivity analysis found no lost profit in that category.
- Collections improved sharply. Average collection days fell from 98 in 2024 to 62 in 2025 and 15 in the 2026 projection.
- Cash on hand grew from $106,000 at year-end 2024 to $555,000 in the 2026 projection.
- Breakeven fell from 82.6% of revenue in 2024 to 58.7% in the 2026 projection. Business failure potential scored Low (Z-score 19.47).
- Staff goodwill was high. 14 of 16 scored survey items returned unfavorable rates of one third or lower, and employees described ownership as approachable and committed to quality.

7. Workforce Perspective

The scored survey items described a healthy firm. The written answers did not. Asked an open question about what would save the company money, employees with no access to the financial statements described the firm's largest

controllable cost: repeated redesign. The lowest-scoring item was training and tools, at 46.7% unfavorable. Two of the most costly issues, compensation and the use of time utilization as the main performance metric, surfaced unprompted even though the survey did not ask about them.

> *"We need to break this cycle of redesigning a building/massing 3-5 times before we have even shown the client one version."*
> Employee, confidential survey

> *"I don't know. Where are we losing money?"*
> Employee, confidential survey

8. Owner Quality of Life at Discovery

Each owner's personal goals were blocked by the business. The majority owner named "complacency" and "good enough" as the obstacle to both a more profitable firm and a better culture, and named "letting go" as the obstacle to retirement.

Dimension	Owner-Stated Goal	Owner-Stated Obstacle
Time	More time with family. Uninterrupted time to design.	Deadlines, emergencies, staffing shortages, meetings, email, and management tasks
Delegation	Delegate administrative and management work.	Unclear project roles and no management layer to delegate to
Health	Get healthy and stay healthy.	Workload and self-discipline
Exit	Majority owner plans to retire from architecture.	"Letting go." No valuation, no successor, and no written transition plan.

9. Recommended Path

The Discovery concluded that the top issues share one cause. Projects begin without a defined scope, budget, or decision hierarchy. Three owners give three different answers on method. Standards are set aside under schedule pressure. The resulting rework is booked to a utilization metric that reads it as productivity. The recommended sequence:

1. Agree on one profit target and settle decision rights among the three owners.
2. Apply the firm's own 2.45x breakeven to the project ledger, and define the project front end: scope, budget, deliverables, decision hierarchy, and design freeze.
3. Correct the 2026 profit plan, add project profitability to the bonus formula, and reduce the weight on overtime.
4. Rebuild the overhead and rate model on actual payroll and close the books monthly to a fixed date.
5. Build a management layer beneath ownership with defined roles, KPIs, and an operating budget.
6. Complete a valuation and begin succession planning.

Path	Discovery Estimate
Leadership corrects issues on its own	2 to 3 years to materially correct most issues
Leadership works with implementation support	4 to 6 months to establish operational control. 6 to 9 months to correct most structural issues.

Engagement Outcome: This firm moved forward with an implementation engagement after Discovery.