

Civil Engineering Case Study

How a Multi-Disciplinary Engineering Firm Resolved a \$2M Billing Breakdown and Recovered \$334,000 in Revenue

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Business Profile

Industry: Professional Services

Sub-Industry: Civil Engineering, Landscape Architecture, Surveying, Urban Planning

Region: Southeast U.S.

Starting Revenue: \$2,279,000

Ending Revenue: \$2,613,000

Starting Employee Count: 16

Ending Employee Count: 16

Number of Owners: 3

Purpose of Engagement: The firm engaged Cogent Analytics to stabilize cash flow after nearly missing payroll due to unbilled work, restore financial control, and implement operational accountability across leadership, billing, and project management.

ROI Summary

Total Increase in Annual Revenue:

- 14.7%
- \$334,000

ROI Multiple:

- 1.85x

1. About the Business

This mid-sized, multi-disciplinary professional services firm provides civil engineering, landscape architecture, surveying, and urban planning services to developers, municipalities, and institutional clients across the southeastern U.S.

The firm had built a strong reputation over decades and maintained steady demand from repeat clients. Despite this, the internal operation had deteriorated. Accountability eroded over time, financial discipline weakened, and leadership avoided difficult conversations. While the firm appeared stable externally, internally it was operating without basic financial controls.

By early 2023, the firm was days away from missing payroll. The root cause was not lack of work. Senior leadership had failed to submit time sheets consistently, which halted invoicing for nearly a year. Approximately **\$2 million in accounts receivable sat unbilled or uncollected**, and the firm had no cash management system to anticipate shortfalls. Technical expertise alone could not compensate for the absence of operational and financial discipline.

2. Initial Challenges

The firm faced simultaneous financial, operational, and leadership failures:

- **Billing Breakdown:** Nearly a full year of work went unbilled, resulting in approximately \$2 million in aged receivables and an imminent payroll crisis.
- **Lack of Time Tracking:** Senior leaders failed to submit time sheets, preventing accurate project billing, utilization tracking, and profitability analysis.
- **No Financial Visibility:** The firm had no cash forecasting, no regular financial review cadence, and no insight into short-term obligations.
- **Absent Leadership Cadence:** Partners had not met face-to-face for over 18 months, creating misalignment, avoidance of accountability, and inconsistent priorities.
- **Uncontrolled Project Performance:** Projects routinely exceeded budgets with no tracking, variance analysis, or corrective action.
- **Underutilized Systems:** An ERP system existed but was not configured to provide meaningful project or financial reporting.

Culturally, the firm remained collegial, but that culture had drifted into complacency. Expectations were unclear, standards were unenforced, and operational problems were allowed to compound until they threatened the firm's survival.

3. Operational Results

Cogent Analytics prioritized cash stabilization, then implemented foundational operational controls and leadership accountability. The focus was on measurable, repeatable financial outcomes.

Cash Flow

Action Item	Baseline Condition	Cogent Action Implemented	Result
Accounts Receivable Recovery	~\$2,000,000 in aged AR, much of it unbilled; no prioritization by age or client	Built AR aging reports, segmented receivables by age and dollar value; partners assigned to collect on key accounts	Recovered a substantial portion of aged receivables, stabilizing payroll and restoring short-term liquidity (exact \$ recovered: data not available)

Cash Visibility	No cash forecast; payroll and vendor payments managed reactively	Implemented rolling 8-week cash projection updated weekly, including payroll, vendor payments, and partner obligations	Eliminated payroll surprises; leadership gained forward visibility into cash position
Billing Cadence	Irregular milestone billing; some projects unbilled for nearly 12 months	Implemented mandatory monthly invoicing tied to time sheet submission and ERP workflows	Established predictable billing cycles and eliminated extended billing gaps

General & Administrative

Action Item	Baseline Condition	Cogent Action Implemented	Result
Operating Discipline	No documented operational standards; processes varied by individual	Developed six core SOPs covering time sheets, invoicing, AR follow-up, project reviews, and financial reporting	Replaced ad hoc practices with standardized, enforceable operating procedures
Financial Reporting	No consistent leadership reporting; financials reviewed sporadically	Standardized monthly financial package including P&L, AR aging, cash forecast, and KPIs	Leadership gained consistent, repeatable financial insight to support decision-making
ERP Utilization	ERP system purchased but largely unused; no meaningful reporting	Reconfigured ERP to support project setup, time tracking, invoicing, and financial reporting	ERP became the system of record for operational and financial performance

Direct Labor

Action Item	Baseline Condition	Cogent Action Implemented	Result
Time Sheet Compliance	Senior leadership failed to submit time sheets; invoicing halted	Enforced weekly time sheet submission tied directly to payroll and billing workflows	Achieved firm-wide time sheet compliance and restored billing capability

Labor Visibility	No utilization tracking; project labor costs not monitored	Implemented utilization KPIs and role-specific performance metrics	Enabled accurate labor tracking and accountability by role (baseline vs. post metrics: data not available)
Performance Management	Informal feedback; no objective standards	Introduced semiannual performance reviews tied to KPI performance	Replaced subjective evaluations with measurable expectations

Return to Owner (Governance & Control)

Action Item	Baseline Condition	Cogent Action Implemented	Result
Leadership Alignment	Partners had not met face-to-face in 18+ months	Established weekly leadership meetings reviewing financials, KPIs, and AR	Restored partner accountability and improved decision-making cadence
Project Oversight	Projects routinely exceeded budgets without detection	Implemented monthly project financial reviews with variance documentation	Enabled early identification of overruns and corrective action
Decision Transparency	Financial and operational decisions made in silos	KPI dashboards shared across leadership and departments	Improved cross-department visibility and coordination

Owner Quality of Life

Dimension	Baseline Condition	Post-Implementation Outcome
Stress & Risk	Imminent payroll failure due to unbilled work	Payroll stabilized and cash visibility restored
Time Allocation	Leadership consumed by reactive crisis management	Shifted to structured weekly and monthly oversight
Confidence in Business	No forward visibility; constant uncertainty	Predictable billing, cash flow, and governance restored

6. Client Reflection

“Working with Cogent changed the way we run the firm. We went from reacting to constant financial emergencies to having control over our numbers, our projects, and our future.”

- Partner