

CASE STUDY

Building a Unified Construction Analytics Platform for New Leaf Custom Homes



Luxury custom homes demand tight alignment between vision, design, and execution. When architecture, interiors, and construction operate in silos, even strong plans can unravel. New Leaf Custom Homes integrates architecture, interior design, construction, furnishings, and pools to prevent those disconnects.

This integrated approach protects client vision, investment, and timelines, while supporting highly customized, fully finished homes. As project scope and volume increased, operational complexity behind the scenes also grew. The systems supporting that complexity were never designed to work together. Project, financial, and time data were spread across multiple systems, limiting holistic visibility. Teams relied on manual reporting to understand budgets, progress, and resource usage.

To restore clarity and support better decisions, New Leaf partnered with Data-Sleek. Together, they unified construction, financial, and operational data into a single analytics foundation built to scale.

The Challenges:

Siloed Data Tells an Incomplete Story

As New Leaf's projects grew in scope and complexity, operational data became scattered across multiple systems. This fragmented environment slowed insight and decision-making. The team faced several challenges in managing project, financial, and resource information:

- **Fragmented Data Sources:**

Project details, budgets, sales activity, and time tracking lived across Buildertrend, Pipedrive, QuickBooks Online, Monday.com, and Clockify.

- **Manual Reconciliation:**

Teams spent hours compiling spreadsheets and reports, often working from conflicting versions of the truth.

- **Limited Project Visibility:**

Without a single source of truth, leadership could not quickly assess budget, timeline, or resource performance.

- **Operational Bottlenecks:**

Fragmentation created delays in decision-making, impeding scalability and reducing confidence in project outcomes.

As project volume increased, these limitations made it harder to forecast cash flow, manage resources proactively, and scale operations without adding overhead. Recognizing these challenges, New Leaf sought a unified approach to construction, financial, and operational data. These challenges prompted a partnership with Data-Sleek to establish a centralized analytics foundation.

The Solution:

A Phased, Data-Driven Construction Analytics Platform

New Leaf Custom Homes partnered with Data-Sleek to modernize its analytics foundation and create a connected construction data ecosystem. The initiative focused on delivering immediate value while establishing a long-term, scalable foundation for improved decision-making and operational visibility.

Discovery & Alignment

Data-Sleek assessed New Leaf's operations and financial workflows to validate key pain points and define priorities. Teams aligned on core metrics, entities, and reporting definitions to ensure consistency across projects. Early efforts prioritized actionable visibility into budgets, timelines, and resources rather than building complex reports.

Platform & Architecture Design

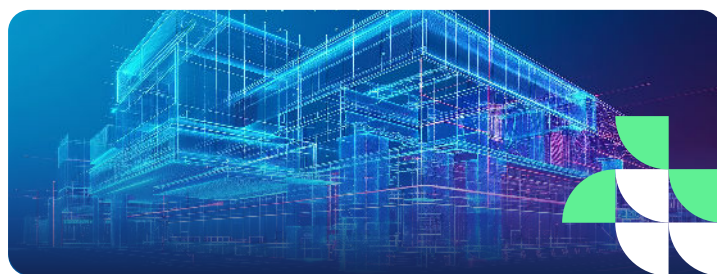
A Snowflake-based data warehouse was implemented as the single source of truth for project, financial, sales, and time-tracking data. Five source systems were unified into the warehouse: Buildertrend, Pipedrive, QuickBooks Online, Monday, and Clockify. Fivetran handled ingestion and dbt handled transformation, ensuring a governed, repeatable pipeline rather than one-off exports. The layered architecture ensured scalability, governance, and easy expansion as New Leaf grows.

Data Modeling, Quality, and Governance

Fact and dimension tables were created to track project performance, financials, and operational efficiency. Historical budgets and time-tracking data were preserved using slowly changing dimensions for accurate trend analysis.

The build ingested over 19,000 rows of project data from Buildertrend. It also consolidated 158 historical Excel bid files into the warehouse, enabling estimate-vs-actual analysis at the project level.

A custom address-normalization and fuzzy-matching pipeline automatically reconciled 58 homes across QuickBooks and Buildertrend. The process surfaced a clear root cause behind the reconciliation gap: roughly 70% of previously unmatched jobs traced back to missing address fields in the source systems, giving New Leaf a concrete, actionable path to cleaner data.



Analytics & Enablement

The unified model was built around the operational questions leadership could not previously answer from siloed systems:

- Which projects are over or under budget, and by how much?
- Which project managers are consistently late or over cost?
- Which trades or task types are the most common delay drivers?
- How does estimated cost compare to actual spend, per project phase?
- What is total actual revenue versus estimated revenue, and which project types are most profitable?

Construction Operations dashboards were deployed to answer these questions directly, giving leadership and project teams unified visibility into progress, budgets, and resource allocation. KPIs were standardized across departments, enabling consistent measurement and informed decision-making. Data-Sleek provided hands-on training to foster self-service analytics and accelerate adoption of the platform.

A Snowflake Intelligence layer now sits on top of the model. These same questions can be asked in plain language and answered directly, laying the groundwork for predictive insights and automation as the platform matures.

Key Outcomes of the Approach

The phased implementation delivered these key outcomes:

- Eliminated manual spreadsheet-based reporting and reconciliation across teams
- Reduced time required to access project, budget, and resource insights
- Improved consistency of KPIs across departments and projects
- Created a governed analytics foundation ready for predictive planning and automation

The Impact: Operational and Strategic Value

Operational Clarity

By consolidating project, financial, and time-tracking data into a single platform, New Leaf teams gained a clear view of each build’s status. Consistent metrics and KPIs across projects reduced reliance on spreadsheets and minimized errors. Teams could quickly identify budget variances, timeline risks, and resource constraints.

Decision-Making & Leadership Confidence

Leadership quickly accessed trusted, up-to-date information, enabling more proactive decisions. With validated insights, executives could identify risks early, prioritize resources effectively, and align teams around consistent performance metrics. The transparency of data strengthened confidence in operational and strategic choices.

Scalability & Future Readiness

The platform established a foundation for predictive analytics, automated reporting, and scalable workflows. New Leaf is positioned to expand operations, integrate new data sources, and adopt advanced insights without disrupting projects.

Conclusion: Turning Construction Data into an Asset

New Leaf Custom Homes partnered with Data-Sleek to unify construction, financial, and operational data. The platform transformed fragmented information into a trusted foundation for decision-making.

Centralizing project insights and KPIs improved operational efficiency, reduced manual effort, and increased visibility across builds. Builders facing similar complexity can benefit from a connected data ecosystem, enabling proactive planning, consistent reporting, and scalable growth.



About Data-Sleek

Data-Sleek® is a consulting agency and a leading provider of comprehensive data management solutions. We specialize in data transformation, data migration, data integration, data architecture, data warehousing, and database consulting. Our commitment to client satisfaction empowers organizations of all sizes to unlock the full potential of their data assets. Data-Sleek is a trusted partner of Fortune 500 companies, dedicated to innovating and revolutionizing the way businesses operate.

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