
LEAN AND MEAN

3 Concepts to Improve Cost Control

Lean Concepts

Owners commonly complain about timeliness, high costs and substandard performance. To address these issues, numerous builders are embracing lean project delivery, a new construction management model inspired by Lean Manufacturing. The three keys to lean project delivery are:

1. **Customer focus**
2. **Continuous Improvement**
3. **Waste Elimination**

1. Customer Focus

There are many customers involved with any process, whether it is building a car or building a car factory. The customer is not just the end user but also the next person on the production line or the next contractor in the chain.

The management style which is appropriate for a lean culture places a premium on setting a clear vision, and operating in a way that encourages openness, trust, teamwork, a pro-active and challenging culture, but also enables performance to be measured and improved.

One way to encourage this is ensuring that rewards and compensation are tied to the value of the completed project as a whole. Lean project delivery embraces cooperation by forming a team in which the architect, builder and all other critical players in the project are treated as equals on a single team in the pursuit of shared goals.

2. Continuous Improvement

The continuous improvement process is the scientific method applied to business problems. Become a learning organization through relentless reflection and experimentation. Create a hypothesis and test it quickly. Measure current state vs. future state and determine if the hypothesis can be rejected. Test, measure, iterate, repeat.

The continuous improvement process seeks out the root cause of the problem so that it can be evaluated and corrected. First though you must create a process flow to bring problems to the surface. Ensure process steps which require assessment and learning, as well as knowledge sharing throughout the organization are taken seriously and not skipped.

Under the conventional approach, units lack sufficient incentives to report a defect since no one wants to be the bearer of bad news or be roped into fixing the problem for no perceived benefit. To ignite the engine of

continuous improvement you must ensure that there are incentives in place to make improvements, and empower them to take control of the solution.

3. Waste Elimination

There are many tools and concepts in lean which are focused on eliminating waste. Some of the most proven tools for use in Real Estate in Construction are: Pull systems, visual controls, and standardized workspaces.

Pull Systems: A key factor to the success of the Lean model is the elimination of waste by pulling inventory. This technique ensures that the necessary material is where it needs to be in the necessary amount at just the right time. This requires robust scheduling and reporting functions, and operations focused contract management with suppliers.

Visual Controls: Missing or unclear information at the operator level can be a major cause of lost productivity. Visualization is about communicating key information effectively to the workforce through posting various signs and labels around the construction site. Workers can remember elements such as workflow, performance targets, and specific required actions if they visualize them.

Standardized Workspaces: The 5S Process of creating a standard workspace has five levels of housekeeping that can help in eliminating lost time:

- Sort – refers to separating needed tools and parts from unneeded materials (trash).
- Straighten or set in order – is to arrange tools and materials for ease of use (stacks & bundles). Items which are used more often are kept closer to the point of execution.
- Shine – is sweeping or cleaning and inspecting the workplace, tools and machinery on a regular basis.
- Standardize – is to maintain the first 3Ss. Develop a standard 5S's work process with expectation for the system improvement.
- Sustain – refers to training and accountability to create the habit of conforming to the rules.

Benefits of Lean

Lean is a simple ideal. Give customers what they want, deliver it quickly, with no waste. The reality is more complex, but companies who implement lean techniques will experience the following benefits:

Improved Employee Morale

Lean is not all about efficiency, it also makes project teams and managers more effective by reducing workflow variability. Providing structure and predictability is a key to having a high-performance culture and happy staff. Lean improves total system performance and makes project outcomes more predictable.

Increased ROI

Productivity is the most obvious benefit of lean. According to McKinsey research, it is estimated that:

- 20% of efficiency is lost in waiting for materials, equipment or information.
- 20% of efficiency is lost because of inefficient processes or poor systems design.
- 15% of efficiency is lost due to poor scheduling of workers—where they are either working in a congested area or the area or space isn't available.

When wastes are eliminated, there are immense opportunities for productivity gains.

Reduced Risk

When a team can closely monitor their progress against the planned commitments, it allows decision makers to identify potential upcoming risks. Then the team can work towards mitigating or eliminating them before they occur. This process is very different from the status-quo—where the people that can make course-correcting decisions are often the last to know when a commitment or plan isn't progressing as expected.

Conclusion

No project is about to get less challenging, but how projects are managed can be streamlined and simplified. To stay ahead in the business of construction and balance the increasing complexities of projects, companies need to start thinking and applying Lean. Although Lean construction management might sound idealistic in theory, when implemented correctly, it truly helps teams maximize project efficiency and reduce overall risk. From a reduction in waste, increased ROI, a higher quality of work and more, the benefits of Lean construction can no longer be ignored.