Introduction to Lean Construction Institute & Lean

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Presentation overview

1. Who is the Lean Construction Institute (LCI)?
2. What is Lean Construction, and why should you care?
3. Which owners are embracing Lean, and why?
4. Where is Lean being practiced around the country?
5. How can you learn more about partnering with us to improve our industry?
JOURNEY TO TRANSFORM

LCI VISION:  The Lean transformation of capital project delivery

GOAL:  Re-integrate a siloed industry to create exceptional value for all stakeholders

OBJECTIVES:  Create demand for Lean, enhance capacity for learning and sharing better practices

MAJOR 2019 STRATEGIES

• Enhance outreach to more fully engage design community in Lean (demand)
• Enhance outreach to promote Lean adoption at the craft level (demand)

TACTICS

• Leverage LCI Communities of Practice (capacity)
• Education programs to promote effective Lean implementation (capacity)
• Research Programs (demand and capacity)
• Owner outreach: (demand)
• LCI annual conference program: Congress (demand and capacity)
• Engage Next-Gen workforce (demand)
The Problem, and the Opportunity

**MANUFACTURING**
- Productive Time: 88%
- Waste: 12%

**DESIGN/CONSTRUCTION**
- Productive Time: 43%
- Waste: 57%

2004 study by the Construction Industry Institute
Conventional vs. Lean Systems Outcomes

**Conventional**
- Risk is high
  - 70% of projects are delivered late
- 73% of projects are over-budget
- Rework and waste are high
- Teamwork is unreliable
- Customers are dissatisfied
- Profit margins are low

**Using Lean**
- Risk is collaboratively managed
- Projects more likely to be delivered on time & within budget
- Waste and rework minimized
- Greatly enhanced safety
- Team-wide reliability is fostered
- Higher customer satisfaction
- Fair profits for project participants
Correlation of Lean to better outcomes

Correlation of “Lean intensity” to outcomes (% likelihood on best projects)

- Completed Ahead of Schedule: 3X
- Completed Under Budget: 2X

Low Lean Intensity | High Lean Intensity
Lean Definitions

Lean:
Culture of respect and continuous improvement aimed at creating more value for the customer while identifying and eliminating waste.

Lean Project Delivery System:
An organized implementation of Lean Principles and Tools combined to allow a team to operate in unison to create flow.
Six Tenets of Lean

1. Respect for people
2. Optimize the Whole
3. Generate Value
4. Eliminate Waste
5. Focus on Flow
6. Continuous Improvement
Manufacturing in Various Sectors

Industries represented in LCI membership:

- Healthcare
- Government – public works and building
- Education – Universities
- Pharmaceuticals
- Retail
- Technology (Google, Intel, Global Foundries)
- Product manufacturers
  - LCI board currently includes P&G, GM reps
General Motors:

• Just completing a $1.25B program in full size trucks
  • Four separate sites
  • Extensive use of Lean saved significant time and money
• Based on their success, GM will pilot a full IPD project – including shared risk/reward contracting

• Other owner members of LCI involved in manufacturing:
  Lockheed Martin
  Corning
  Georgia Pacific
  Procter & Gamble
Why is P&G doing Lean IPD?

- Value
- Cost
- Schedule
- Quality
- Safety
- Culture
- Capability
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$1B Value Creation

$0.5B Capital reduction

$0.5B Speed to Mkt savings

15% (of $3.5B)

Also: O&M, other savings

It’s a better way!
P&G’s Lean Benchmarking
Where is Lean most prevalent around the US?
Summary

• LCI is in business to transform our industry – we want to collaborate with you – we can’t succeed at this alone

• Lean Construction techniques have been around 20+ years, but are still in their infancy in deployment across industry

• Interest in and use of Lean continues to grow across regions and industries in the US

• It’s the right thing to do: respect for people, increasing value, and eliminating waste makes the work environment better for all
SAVE THE DATE

21ST

LCI CONGRESS

OCTOBER 14-18, 2019 | FORT WORTH, TEXAS
A Must-Attend Design Industry Event

SAVE THE DATE

MAY 29-30, 2019 • CHICAGO, IL

LEAN IN DESIGN FORUM

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The eLearning Advantage

Advance your Lean journey with Lean Construction Institute (LCI) Immersive Education Program eLearning courses that are designed to make Lean learning available to busy design and construction practitioners 24/7 from any smart device. When you participate in LCI eLearning courses, you’re on a path to increasing retention with knowledge checks, multimedia, hands-on interactions and more.

**Why eLearning:**

- **40-60%** less time than classroom learning
  
  (Brandon-Hall)

- **25-60%** increased knowledge retention compared to classroom learning
  
  (Research Institute of America)

- **72%** of organizations believe eLearning increases their competitive edge
  
  (COSTMe.net)

- **42%** of organizations believe eLearning led to increased revenue
  

**eLearning Advantages Come in the Form of:**

- **ON-DEMAND** learning you can do on any smart device

- **SMALL BATCH** learning to increase retention

- **PERSONALIZED LEARNING** to appeal to various learning styles

- **KNOWLEDGE CHECKS** along the way to benchmark learning

**Take Your Lean Learning Journey to the Next Level:**

Sign up for LCI education updates and opportunities to contribute: [www.leanconstruction.org/leanlearning](http://www.leanconstruction.org/leanlearning)

Stay tuned for eLearning courses such as:

- Introduction to Lean Project Delivery
- Introduction to Lean in Design
- Mindset of an Effective Big Room

For eLearning volume discounts of up to 65% off, email: elearningdiscounts@leanconstruction.org.
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