

# Lean Construction Institute

Building Knowledge in Design and Construction

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Provider Name: Lean Construction Institute

Provider Number – H561

Course Name: Improving the Way we Work: Implementation of Lean on Projects, Case Studies and Lessons Learned.

Course Number – 20121011AM

Course Speakers: Bernita Beikmann, Digby Christian, Ken Lindsay, Paul DeChant, James Grossman, Chris Dierks, John Hugget, Sam Moses, Brian Lightner, Brad Carter

Course Date: October 11, 2012



Credit(s) earned on completion of this course will be reported to **AIA CES** for AIA members. Certificates of Completion for both AIA members and non-AIA members are available upon request.

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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

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# Course Description

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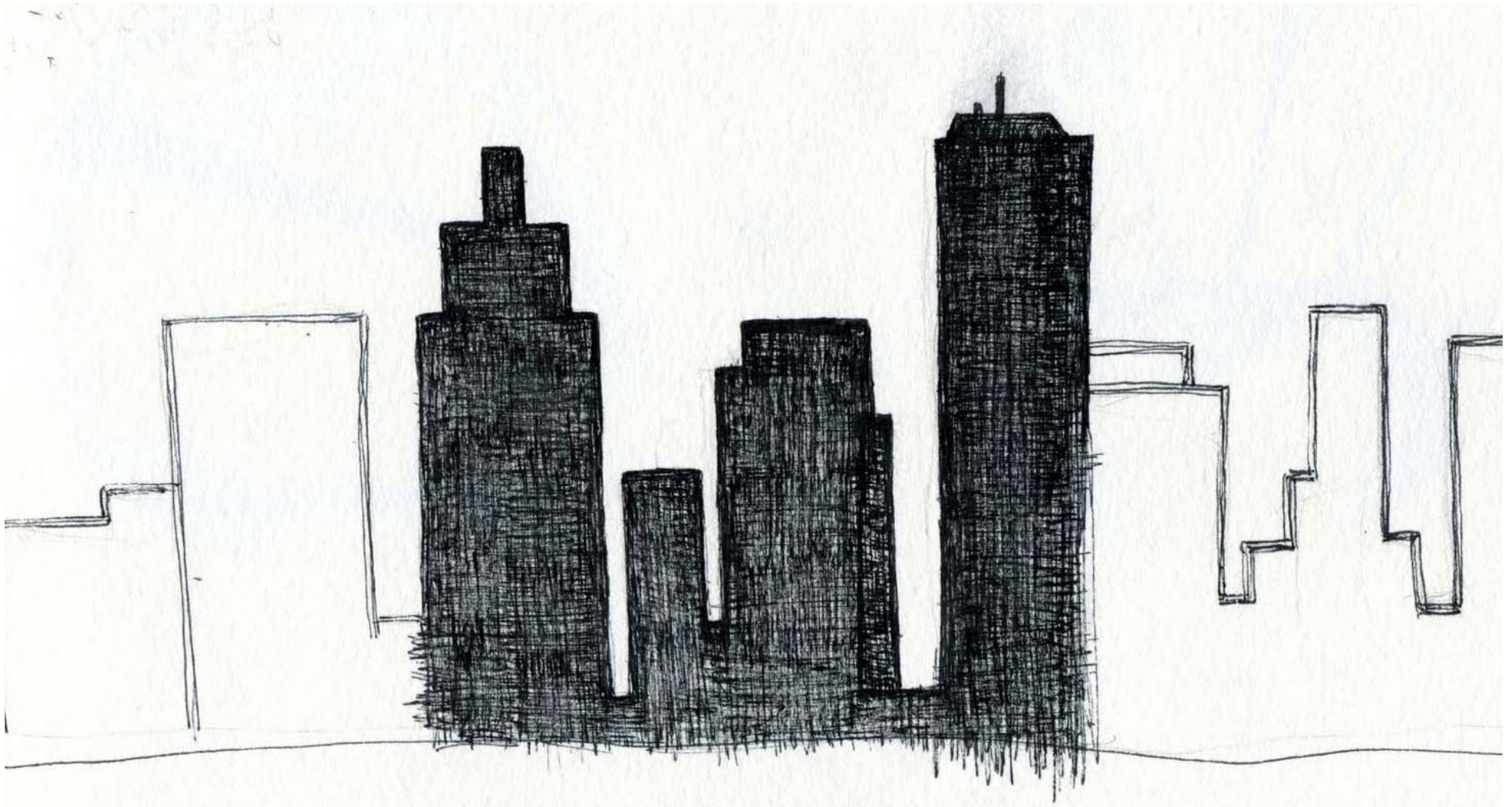
This session incorporates testimonies and case studies from participants in projects that used lean methodologies to improve the design of their facilities and change the way they deliver a project in design and construction. The case studies will dive deep into specific tools and techniques that will improve the quality of buildings, create a safer and more reliable work environment, and improve the design and construction practice.

# Learning Objectives

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At the end of the this course, participants will be able to:

- 1) Learn how an owner applied Lean Methods and Practices to redesign healthcare operations within a facility and improve the delivery of patient care with improved work flow and facility operations and overall improve the patient experience.
- 2) Examine Case Studies from multiple projects in California, Illinois, and North Carolina and learn how incorporating 5s, increased levels of technologies including BIM, and other Lean Process Improvements has improved the schedule, quality, and communication on those projects.
- 3) Discover how incorporating Takt Planning and Daily Huddles in your Project can improve reliability with Construction Delivery.
- 4) Learn how incorporating pull planning techniques and the Last Planner System into the delivery of your project in design and construction will help facilitate communication between building system participants, help deliver your project on time, and create a safer construction site.



# IMPROVING THE WAY WE BUILD

2012 LCI CONGRESS | October 11



How can **LEAN** construction principles and practices be applied to **improving the operational aspects** of healthcare delivery?

# ELIMINATION OF WASTE



FLOW



# CONTINUOUS IMPROVEMENT



# IMPROVING THE **WHY** WE **BUILD** **greater efficiencies and goals**

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**ELIMINATION** of waiting

**SIMPLIFIED** processes

**ACCESS** for staff and patients

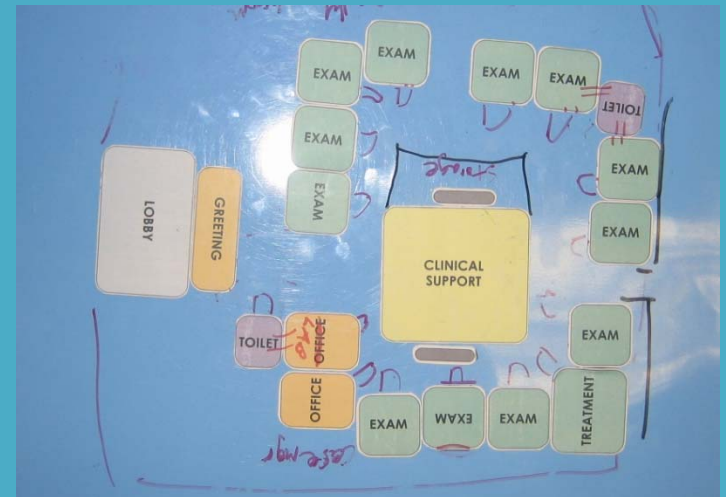
**SPEED** up the delivery process

**READINESS** and accessibility to equipment

**COLLABORATIVE** and collegial space

# CDP EVENTS

staff involvement



real-time feedback  
user buy-in  
process evaluation

# GEMBA EVENTS the real place



constant improvement  
staff engagement

shared learning

# CLINIC SIMULATIONS modeling



testing scenarios  
user buy-in  
measure future outcomes

# Existing Flow in Existing Floor Plan

4 receptions staff; vitals in hallway

4 Physicians, 1 MA and 2.5 exam rooms each



# Existing Flow in Module Option

4 receptions staff; vitals in hallway

4 Physicians, 1 MA and 2.5 exam rooms each

Mon, 10:30:00 AM



# Module – 4 Providers in Clinic

4 receptions staff; vitals in room  
4 Physicians, 2 MAs and 3 exam rooms each



# Module – 5 Providers in Clinic

4 receptions staff; vitals in room  
5 Physicians, 2 MAs and 3 exam rooms each

Mon, 10:30:00 AM



# Existing Flow in Existing Floor Plan

Patient state time – 51.2 minutes

# Existing Flow in Module Option

Patient state time – 50.4 minutes

# Module – 4 Providers in Clinic

Patient state time – 32.9 minutes

# Module – 5 Providers in Clinic

Patient state time – 32.8 minutes

**Existing Flow in Existing Floor Plan**

**Travel Distance – 269 feet**

**Existing Flow in Module Option**

**Travel Distance – 236 feet**

**Module – 4 Providers in Clinic**

**Travel Distance – 177 feet**

**Module – 5 Providers in Clinic**

**Travel Distance – 172 feet**

buildings are powerful CHANGE AGENTS



This concludes The American Institute of Architects  
Continuing Education Systems Course

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Lean Construction Institute



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