

The Lean Construction Institute

LEANING YOUR ORGANIZATION


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THREE OPPORTUNITIES OF LEAN

- Impeccable coordination
- Projects as production systems
- Collective enterprise



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THREE OPPORTUNITIES OF LEAN

Impeccable coordination: **on Projects**

- Coordination between specialists across contractual lines
- Coordination between designers on deliverables and information exchanges
- Coordination of programming with design, design with construction and construction with commissioning
- Coordination of fabrication, installation and operations

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THREE OPPORTUNITIES OF LEAN

Production Systems: **on Projects**

- Enabling predictable workflow
- Coordination of handoffs between specialists across contract lines
- Moving resources to the right location at the right time
- Understanding cycle time and production as measures of installation
- Mitigating the effect of the 7 wastes
- Visible work place and transparency

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THREE OPPORTUNITIES OF LEAN

Collective Enterprise: **on Projects**

- What's best for the project, not the piece
- Moving money and resources across contractual lines
- Rewarding collaborative, transparent behavior
- Having confidence that if the project works, it will work for all the participants


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THREE OPPORTUNITIES OF LEAN

Impeccable coordination: **in house**

- Coordination between specialists across **departmental** lines
- Coordination between **contracts, accounting, payables and business development**
- Coordination of continuous **learning across all projects and all business units**
- **Removal of wasteful steps and processes that inhibit collaboration and coordination**

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THREE OPPORTUNITIES OF LEAN

Production Systems: **in house**

- Enabling predictable workflow
- Coordination of handoffs between specialists across **departmental** lines
- Moving resources to the right location at the right time
- Understanding cycle time and production as measures of **performance**
- Mitigating the effect of the 7 wastes
- Visible work place and transparency

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THREE OPPORTUNITIES OF LEAN

Collective Enterprise: **on Projects**

- What's best for the **company**, not just an individual worker
- Moving money and resources **smartly to enhance work, not impede it**
- Rewarding collaborative, transparent behavior
- Having confidence that if projects work, **if the company is always watching out for the customer, the company will work for all of its stakeholders**


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CULTURE

The spirit of creative challenge is the driving force of our corporate philosophy.

From Wikipedia:

"set of shared **attitudes, values, goals, and practices** that characterizes an institution, organization, or group"



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CULTURE: ATTITUDES

<p>Current</p> <ul style="list-style-type: none"> ▪ The Contractor is here only to take our money ▪ Designers only care about increasing project value and thus their fee ▪ Owners only want low price ▪ Trades know how to trick us into change orders 	<p>Lean</p> <ul style="list-style-type: none"> ▪ The Contractor manages work for the benefit of the owner ▪ The Design Team designs only valuable, responsive projects ▪ Owners want value ▪ Trade partners actually perform the work—they are the ultimate deliverers of value
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CULTURE: VALUES

Current	Lean
<ul style="list-style-type: none"> ▪ The Contractor favors innuendo and misunderstanding ▪ Designers value only iconic design ▪ Owners want low price ▪ Trade partners value hitting home runs and staying alive 	<ul style="list-style-type: none"> ▪ Collaboration ▪ Transparency ▪ The relentless pursuit of waste ▪ The continual installation of value ▪ Learning organizations ▪ Continuous improvement

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CULTURE: GOALS

Current	Lean
<ul style="list-style-type: none"> ▪ The Contractor is here only to take our money ▪ Designers overdesign to avoid mistakes ▪ Owners want faster, lower priced quality projects ▪ Trades want to prolong projects and increase scope 	<ul style="list-style-type: none"> ▪ Everyone leaves work in the same condition they arrived ▪ Projects can be timely, cost effective and of substantial quality ▪ We will build the project faster and for less money ▪ We will work with the same team again

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CULTURE: PRACTICES

Current	Lean
<ul style="list-style-type: none">▪ Everyone for themselves▪ Command and control▪ Deep commitment to a multi-thousand task CPM schedule▪ Cramming and massing at the end of a project to complete on time▪ Draconian contracts	<ul style="list-style-type: none">▪ Optimize the project▪ Collaborate▪ Reliable promising▪ Effective learning▪ Increase relatedness

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CULTURAL NORMS

Sutter's 5 Big Ideas

Collaborate;
Really Collaborate

Increase
Relatedness

Optimize
The Whole

Networks of
Commitment

Tightly Couple
Learning w/ Action

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COLLABORATION

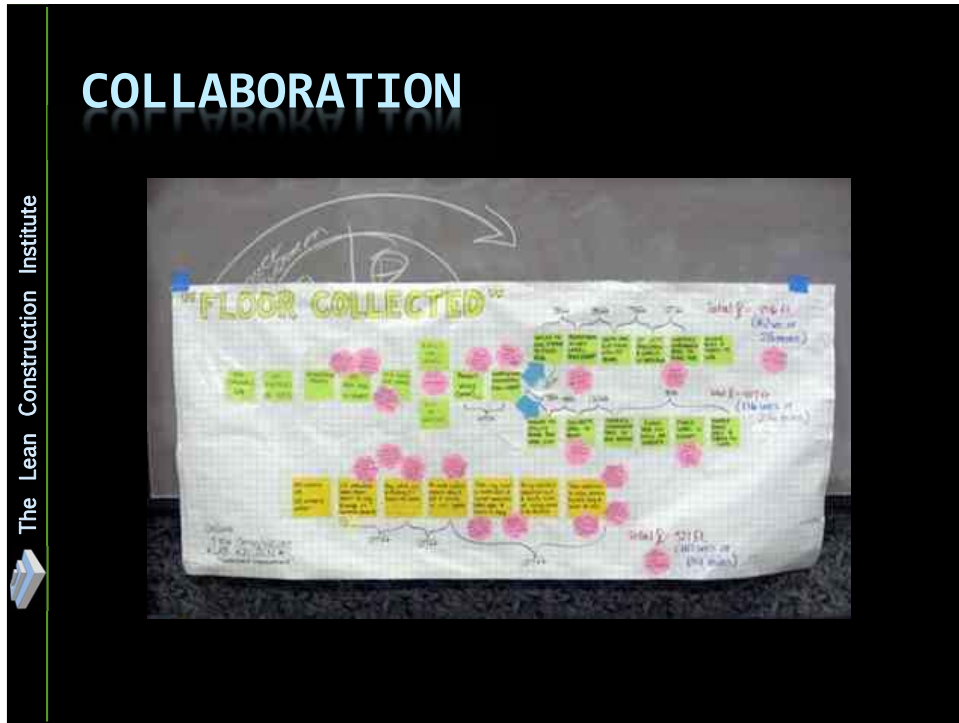


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COLLABORATION

Collaborate, really collaborate

- What does your company do better than anyone else?
- Do your customers know that?
- Does your physical space allow you to produce that?
- Does your culture allow you to understand how you can make that happen?
 - What's the mission?
 - What's your part?
 - What do others do?



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COLLABORATION

Collaborate, really collaborate

- What do you need to know about what others do?
- How does it contribute to the value proposition?
- How do you routinely review company processes, procedures and history to update based on lessons learned?
- Social collaboration?
- Professional?
- Protect private time? Respect for people?

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COMMITMENTS



"Do you have a flower arrangement that says- I like you, but if you're looking for a commitment, forget it."

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COMMITMENTS

Companies are networks of commitments

Company Commitments:

- Understanding the mission
- Sufficient and on-going training
- Sufficient resources
- A safety plan
- A growth plan
- A plan to share benefits



COMMITMENTS

Companies are networks of commitments

Worker Commitments:

- Commitment to customers
- Commitment that my work will release work for you in a reliable fashion
- Commitment to pulling, not pushing work through our system

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LEARNING

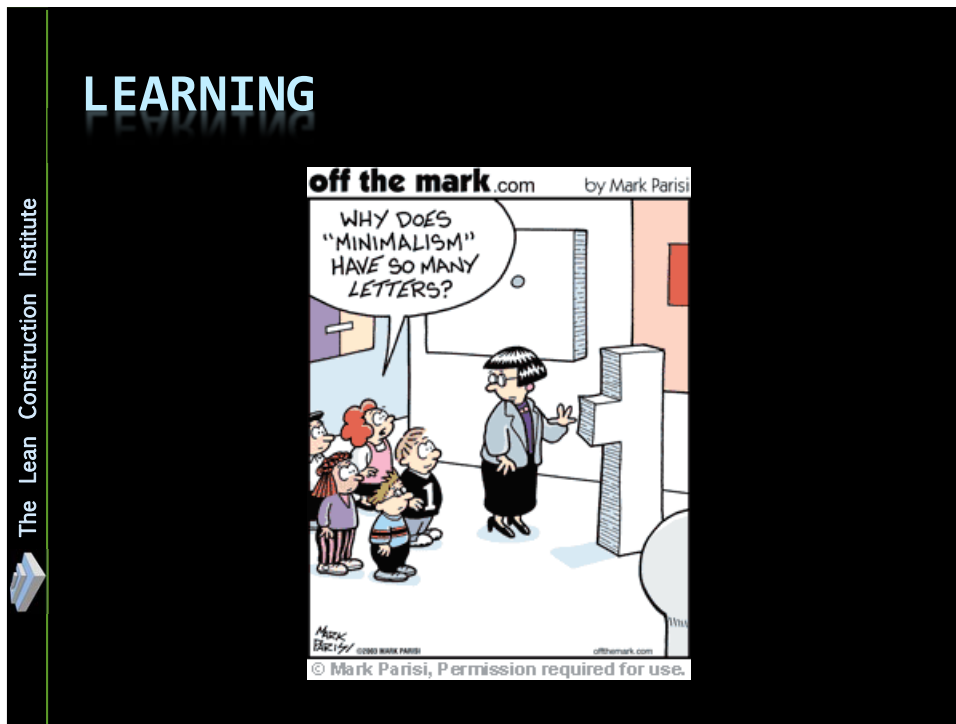
"They stole all my karate books!"

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LEARNING

Tightly couple learning with action

- Knowledge for knowledge's sake?
- Learning without doing
- Learning organization
- Encourage people to ask "why"
- Empower people to ask "why"



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LEARNING

Tightly couple learning with action

- Importance of value stream mapping and rapid process improvement
- VSM is all about looking at things from beginning to end.
 - support side
 - actual material flow / work – e.g. requisition of materials through receipt, fabrication, delivery and installation)

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LEARNING

Tightly couple learning with action

Rapid Improvement/Kaizen events –

- engaging people in change, training them on tools, avoiding sub-optimization
- Start looking at how the actual work is being done
- engaging people so they understand, and are focused on improving a process from beginning to end
- cross-functional activities focused on problem solving across the organization and intercompany optimization

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LEARNING

Tightly couple learning with action

Rapid Improvement/Kaizen events –

- events build relationships between departments – team building
- teach people VA/NVA, 8 wastes, how to improve, problem solving tools
- Change the way people look at work, change the conversations between the people, change the decisions that people make



OPTIMIZE THE WHOLE

For the benefit of all . . .

- Customer centric
- Respect for people, in and out of the organization
- Respect for the mission:
 - Healthy attitudes
 - Belief in the values
 - Support the goals
 - Engage in the practices that enhance the values and goals

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OPTIMIZE THE WHOLE

For the benefit of all . . .

- Across the desk
- Across the aisle
- Across the hall
- Across departments
- Across divisions
- Across locations
- Across all barriers

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INCREASE RELATEDNESS

PEANUTS by Charles M. Schulz

Panel 1: LUCY: I'M INTRIGUED BY THIS VIEW YOU HAVE ON THE PURPOSE OF LIFE, CHARLIE BROWN...

Panel 2: CHARLIE BROWN: YOU SAY WE'RE PUT HERE ON EARTH TO MAKE OTHERS HAPPY? LUCY: THAT'S RIGHT!

Panel 3: LUCY: WHAT ARE THE OTHERS PUT HERE FOR?

Panel 4: CHARLIE BROWN: THE OTHERS ARE THE PEOPLE I HAVE TO MAKE HAPPY.

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INCREASE RELATEDNESS

Your friends, your colleagues

- Know your co-workers: **know their work**
- Know your customers: **know their values**
- Know your work: **share it with others**
- Know your competition: **understand their work and their challenges**
- Share openly, **steal with permission**
- What makes the process better (in and out of the company), **makes us all stronger**

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WHAT WE CAN DO . . .

"We must go green - but where do we start?"

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STRATEGIC INITIATIVES. . .

- Institutional Excellence
 - A leader in the industry
 - A learning organization
 - Driving value to clients
 - Driving out waste
 - Educating clients, trades & vendors
 - Supporting industry transformation

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STRATEGIC INITIATIVES. . .

- Pre-Construction
 - Integrating with Design
 - Choosing trade partners early
 - Driving costs out of projects
 - Designing project delivery during the design process
 - Developing and maintaining systems sets
 - Coordination, Collaboration, Integration
 - Developing deep trade partnerships

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STRATEGIC INITIATIVES. . .

- Quality
 - Built in Quality Planning
 - Mock-ups
 - First Run Studies
 - Designing and documenting project delivery for on-site, real time use
 - Trade quality plans and empowerment

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STRATEGIC INITIATIVES. . .

- Safety
 - Safety as an inherent system in design and delivery
 - Buildings designed to enhance safety in project delivery and operations
 - Use pull planning as the launching pad for your safety plan
 - Lessons learned and education

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STRATEGIC INITIATIVES. . .

- Risk Management
 - Structure contracts to manage risk not sell it
 - Increase knowledge as early as possible
 - Manage project work with Owner and Designer
 - Help develop sensible, efficient, cost-effective insurance programs

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STRATEGIC INITIATIVES. . .

- Operations
 - Rapid Improvement Events
 - Value stream mapping
 - Making your company a preferred owner, a premier GC, a world class designer, a go to trade partner, an essential vendor
 - 5 S in the workplace:
 - sorting,
 - straightening,
 - systematic cleaning,
 - standardizing and
 - sustaining

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STRATEGIC INITIATIVES. . .

- Operations
 - Continuous Improvement
 - Institutionalizing Lessons Learned
 - Cultivating a learning culture
 - One that always asks why? And then asks it again.
 - Transparency and openness in all processes
 - Promoting improvement suggestions at all levels—and then implementing

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STRATEGIC INITIATIVES. . .

- Next Steps?
 - Start with the end in mind: Better Projects
 - Move backwards to establish the steps that will get you to your goal: Identify criteria
 - Use the PDCA cycle:
 - Plan: 20% faster
 - Do: Create a milestone schedule with no buffer
 - Check: Monitor it monthly; and
 - Adjust: As necessary

