



Lean Construction Institute

Building Knowledge in Design and Construction

Turning the question:

There is now an LCI Community of Practice in Albuquerque, New Mexico and a freezer filling 40 pounds of frozen green chiles and 2 dozen tamales from El Modelo. - <http://www.yelp.com/biz/el-modelo-mexican-foods-albuquerque> - in our pantry. The meeting was organized by Morgan Kramm of WHPacific (<http://www.whpacific.com/pages/Locations/default.aspx?st=nm>). We planned for 15 participants and 22 showed up, nearly half were architects and engineers.

I opened the meeting by offering to answer the question, "What is Lean Construction?" if people would first answer, "What is "normal" construction?" The first answers were "wasteful" and "it doesn't work." So I tried to sharpen the question, to define it quick and clean, without describing its performance. I can't say that I got an answer but it was a rich discussion. I ventured that the management of construction today was best understood from a contracting perspective supported by a CPM based operating system. That system arrived in construction in the early 60's, from the US Navy and DuPont where it had been used to manage contracts. Since then a coherent set of contracting, organizational and project management practices have evolved as industry structure and practices developed. The result is a local-optimization approach that pressurizes each organization to deliver their portion for the least cost. Competition inside the project increased risk as each party struggled to optimize their work. People learned to game the system. Uncertainty increased as people learned to game the system. In this fragile and unstable situation, projects could spin out of control; Mistakes or actions that improved one party's circumstance at the expense of others could trigger an "every person for them self" spiral. To gain perspective on the extent of the problem, I asked Professor Tariq Abdelhamid for information on overruns and claims. His report:

"The literature indicates that 65% to 90% of construction projects have experienced time/cost overruns.

- Flyvbjerg, B., Bruzelius, N., and Rothengatter, W. (2003). Megaprojects and risk: An anatomy of ambition, Cambridge University Press.
- Bordat, C., McCullouch, B. and SinhaAn, K. (2004). Analysis of Cost Overruns and Time Delays of INDOT Projects. PhD Thesis, Joint Transportation Research Program, Purdue University.
- Morris, P. and Hough, G. (1987). The anatomy of major projects: A study of the reality of project management. Wiley, New York
- General Accounting Office (2005). Courthouse Construction: Information on Project Cost and Size Changes Would Help to Enhance Oversight. <http://www.gao.gov/new.items/d05673.pdf>



As to claims, according to Ren and colleagues (2001), 52% of the construction projects end up with a claim of some type.

- Ren, Z., Anumba, C. and Ugwu, O. (2001). "Construction claims management: towards an agent-based approach." *Engineering Construction and Architectural Management* 8(3): 185-197."

Back to the meeting: I tried to make the case that current practice provides a coherent set of fundamental principles, basic practices and vocabulary. This provides a comprehensive set of rules for authority, behavior, organizational structures, communication and solving problems. Likewise, Lean Construction provides a coherent set of fundamental principles, basic practices and vocabulary. Explaining this difference, answering the question, "What is Lean Construction?" is never easy. Those who live in the traditional world have a difficult time believing that an alternative exists. Given the coherent "world" of traditional practice, how could they? In response, some take the view that Lean Construction gives new names to traditional practices, a sort of "This-is-That equivalence. Others focus attention on one aspect, typically collaborative organizations and practice and rightly claim they already do that. Results from projects delivered under Lean Construction protocols rarely persuade people of its efficacy. They tend to dismiss both the results and Lean Construction because they see them from the traditional perspective. Given the magnitude of the shift, it isn't a surprise that "drinking the Koolaid" is a metaphor for how people have changed.

I wish I knew a sure fire Koolaid-free way to shift people's perspective, what they see. The simulation, Parade of Trades® works as well as anything. It recreates people's experience on projects as delays propagate, reveals an unexpected opportunity for improvement and makes apparent both the consequence of the local optimization and the opportunity for improvement - improving the predictability of workflow. The "Parade" is the best way I know to shift what people see and how they think. It opens the door but not everyone walks through.

Please let me know how you moved from traditional thinking and practice to lean. How did it happen, what did you do to test your early understanding, etc.?

Links that may interest of delight:

Insurance for IPD

<http://www.theaiatrust.com/newsletter/2010/10/ipd-insurance/>

Advice from Matthew May

<http://www.openforum.com/articles/6-things-managers-believe-that-are-dead-wrong?extlink=em-openf-SBdaily>



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Follies:

http://sciencedemonstrations.fas.harvard.edu/icb/icb.do?keyword=k16940&pageid=icb.page80863&pageContentId=icb.pagecontent341734&state=maximize&view=view.do&viewParam_name=indepth.html#a_icb_pagecontent341734

<http://www.youtube.com/watch?v=HAIS5QYJqk&feature=related>