

**Minutes**  
**Construction Labor Symposium**  
**Albuquerque, New Mexico**  
**May 10-11, 2005**

The Lean Construction Institute (LCI), the New Mexico Building Branch chapter of the AGC, and UNM's Construction Management program sponsored a symposium on the shortage of skilled construction labor. Four labor unions were represented (Carpenters, Laborers, Pipe fitters, Sheet Metal workers), as were both open shop and union contractors, The Construction Users Roundtable (CURT) and the National Center for Construction Education and Training. The desired outcomes are reproduced below, followed by the comments generated during the symposium and captured on flip charts. The agenda consisted of presentations, followed by a strategic planning session which produced action items. The remarks listed under each speaker are key points noted by the audience. *Please communicate corrections to Glenn Ballard, [gballard@leanconstruction.org](mailto:gballard@leanconstruction.org); 415.710.5531.*

## **Desired Outcomes**

1. All understand each other's strategies for responding to the shortage of skilled construction labor.
2. Disagreements are sharpened and new agreements forged.
3. A plan, including minority reports, is produced for solving the labor problem, around which stakeholders can be mobilized.

## **Greg Howell-LCI's position paper**

- Opening quote from Teddy Roosevelt
- Current practice contributes to waste (project management)
- Treating humans on jobs as inventory (are we?)
- Push vs. pull concepts
- Reliable promises/promising
- Worker value increases in a pull environment
- Workers having some control over work—as equal collaborators

- Need to start thinking differently if we are going to be able to act differently
- Opportunity and responsibility to train
- Waste of competence and spirit
- Looking for people to say “no”
- Lack of advancement opportunity—workers’ competence is invisible
- Tendency to blame waste on the field rather than looking at the production management system
- New thinking: we have people; not using them well

## **Gunde Odgaard- Why Danish Trade Unions Support the Ideas**

### **of Lean Construction**

- Piece rate system
- Importance of soft skills
- Not enough emphasis on training in New Mexico high schools (skilled trades)
- Front line workers create the value on jobs
- Program must be instituted into all educational curricula
- Acknowledgement that workers are skilled
- Redefinition of middle management as facilitators
- There are more data supporting Lean improvements in productivity
- Planning is contagious (Lean planning)
- Higher degree of organization helps both sides
- Two major trends in labor market
  - Train/integrate labor
  - Undeclared labor
- Supervision: current practice supports “not thinking”
- People resist because “it’s just more meetings”, but benefits can be demonstrated—safety, etc.
- Question: How to incorporate crew supervision into piece-rate system?
  - Dynamic negotiation
  - Build in proactive planning
- Question: How to optimize the whole in a piece-rate system? Answer: Bonus ‘pot’
- “People can supervise themselves” versus “what they’re supposed to do”
- If people see themselves as part of the whole, the tension can be resolved
- Question: How is work structured in Denmark? Answer: The more sub (sub-sub) contracting, the more difficult it is for Lean
- Regarding the feedback system, Last Planner allows workers to take ownership of feedback mechanism

## **Greg Sizemore-the Construction User Roundtable’s strategy for construction labor**

- Question: Has CURT addressed quality-of-work-life issues? Answer: Not yet.
- All 15 trades are part of the Tripartite Initiative!
- LEAN Initiatives needs to be owner-led, contractor-executed
- We have a reality problem, not merely image problem
- “1/2 cost, time, etc. image needs to be addressed
- Comprehensive educational outreach to students, parents, schools, etc underway by many Local User Councils

- Owners tending to commodity thinking regarding construction and owner engineering staff
- Bid document specs may need to include craft training/quality of life
- Systemic interdependence between all topics presented
- How do you encourage journeymen to continue their training?
  - Indicator of contractor qualification??
  - Tie to reframing of supervisory function?
  - Due to excessive use of overtime?
  - Educate journeymen regarding construction economics—how does it help them?

### **Don Whyte-NCCER's strategy for construction labor**

- Licensing—major priority
- Open Shop image—began with support from ABC—now is a 501©3—educational
- Why is there a shortage, where we can attract the ‘.300 hitters’
  - It's the lack of a true career path
- Core curriculum is in Spanish—is an area to expand—ESL, etc.
- Broad strides, but lack of an industry-wide commitment (Who?)—primarily, includes only progressive contractors
- Should be owner-led—others say, “That's your problem”
- ROI increase needs to be shown to owners—show economic benefit; CII research planned
- Magnitude of increase of pace of construction
- Competitive boundary is between construction and other industries—not within the industry
- 51% curriculum in schools—why/how?
  - Aligned with schools' skill standards
  - Partnerships between contractors and schools
- Regarding the competitive boundary—may be between craft and manufacturing work-across industries
- Workers who talk about being well-treated/have decision-making role, etc.—best retention and recruitment mechanism
- Have unskilled people training unskilled people
  - Good craftsmen have left
  - Open shop contractors did creative things
  - Unions and owners share blame
- Didn't hear: What about multi-skill training? Response: Flexibility is there in NCCER

### ***Plus/Delta at noon Tuesday (1<sup>st</sup> day)***

+ \_\_\_\_\_ Delta

- Cross section
- Dynamic hear & capture
- Like “What did you hear?”
- Tim's handwriting

- Presentations use more time
- Clarify positions now, talk later

## **Doug McCarron-the Carpenter Union's strategy for construction labor**

- “Grassroots” economics on the job
- Now doing more journey worker training than apprentice training
- Attitude over aptitude
- There is a value process to deliver
- Carpenters are being thorough by looking at what is happening in the industry versus just within the craft
- Infusing a business model versus political approach
- Infusing Lean (aka productivity) principles
- Investing \$\$
- Strengthening regional councils

## **Don Kawal, Klinger Constructors' strategy for construction labor**

- Management strategy/priority on education
- Create capability through education
- Many talk about this; few act.
- Question: What's Klinger's turnover? Answer: More in unskilled areas, about 75% retention. Group experience in apprenticeship program is positive.
- Question: “Success in journeyman education?” Answer: “Have to prod.”
- Focus on health and safety pays off.
- Retention: “The more you keep, the better.”
- Investments that don't yield direct, immediate returns/results, e.g., middle school programs.

## **Mike Pappas-The Two Tier Construction Work Force Strategy**

- Cost-benefit ratio of 3:1
- 51% first timers
- Focused on only a segment of the workforce; “core workforce”

## **Sean Graystone-And Now for Something Completely Different**

- Band-Aids versus real solutions
- Defect in education supply chain
- Conflict is counterproductive; new model of co-operative related entities to guide education; for profit, non-profit, government
- Fundamental value system of the country

## **John Toups-A Strategic Model to Improve Contractor Performance and Reduce Cost**

- Workers have feelings and emotions
- We're an industry void of soft skills, leadership
- How does the feedback get back into “individualized best practices”—added to the book?
- Foster a culture of learning and sharing knowledge
- Individual coaching
  - Management coaching management
  - Worker coaching peer

- Engage workers at human level
- Use technology to overcome human frailty
- Info→Empowerment
- Complicated situations can have simple solutions

### ***Reflections from Tuesday at 2<sup>nd</sup> day startup***

- Absenteeism—it's not just workers' problem, it's an industry-wide problem
- Let's look at places where there's been success—Doug McCarron's example of where people are being turned away from oversubscribed apprenticeship programs
- Find people who recommend this industry to their kids
- Turnover—why don't people stay? Supervision? What's the key training required?
- Path to Citizenship—People without this path will not go to training. Address the immigration issue, otherwise, we're supporting an underground economy
- How are supervisors recruited? Select best craft worker? Favoritism?
- Having a good crew—raise apprenticeship standards; look at people who can support trades
- Support system/making work ready
- Where/how do we move forward? It may be possible!
- Agreements:
  - Workers lack knowledge
  - Workers have untapped potential
  - Fragmented system
  - But, no agreement yet on how to respond

### **Paul Reiser-the Helping Hands initiative and case studies in the application of Last Planner to plant shutdowns**

- Multi-skilling: basis of Helping Hands
- Commitment to plan was central/key
- Cultural/behavioral challenges-list
- It's doable!
- Multi-skilling is not de-skilling
- Change "Helping Hands" title
- Small bites can lead to significant improvements
- Enlightened leadership leads to new level of collaboration
- Should be part of basic training
- Providing management training
- Starting with CPM
  - CPM conventionally misused
  - Better definition as a master schedule, restricted to milestones; to guide and test phase scheduling done collaboratively
- Dangers of crossing jurisdictional lines—safety concerns (e.g., forklift operations)
- Assistance is non-technical
- Job site orientation for everyone
- Clear strategic vision must be well communicated
- System creates incentives—people want to work with Boldt, etc.
- Similarities between Boldt & Linbeck (Houston)—links to relational contracting

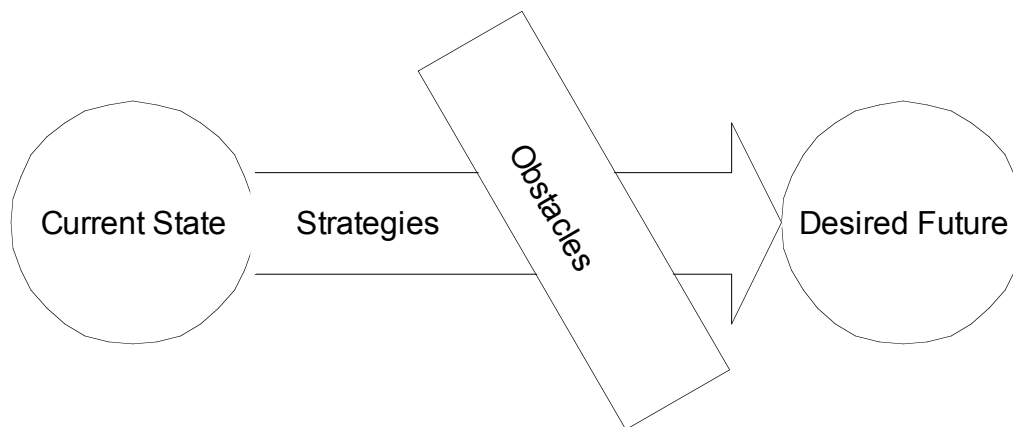
## Vicki Mora-New Mexico AGC's snapshot of commercial construction labor

- Schools stereotype
- Building trades programs do exist in schools
- Pre-apprenticeship model in New Mexico
- Richness of what is going on in New Mexico and local association chapters—mostly invisible
- Shift from recruiting project managers to superintendents—graduates of UNM construction management program rather than the field
- Increased level of public capital outlay, public regulation and need for a more sophisticated procurement process by public owners contribute to the frustration—how should industry deal with and educate them too
- Logistical issues related to increasing investment in training—small-to-medium sized firms want proof for return on investment and they represent a “lion share” of the workforce
- Employers are responsible for life long learners; this is new demand for our employers

### ***Towards a Desired Future***

To get a sense of what the group was thinking and to see where there was agreement and disagreement, the following diagram was used, consisting of:

- The current state or situation
- The desired future state
- The obstacles expected to be encountered in moving from the present to the future
- The strategies needed to overcome those obstacles



The following is a record of what participants said regarding each component.

### **Current State**

- Need more sophisticated workers at all levels
- This is not only a training issue. We need to change how we do and manage work
- Changed generational attitudes and expectations
- High percentage of non-English speakers in the construction work force
- Lack of soft skills/need to train workers in soft skills
- There are some resources for training and education

- Questions/Facts needed
  - What capacity now exists for training?
  - What's the demand for training?
  - Where do workers go who don't choose construction?
  - What level of investment is required?
  - Should the emphasis be on present or future workers?

## **Desired Future**

- All AGC members are engaged in training
- People in this industry have a middle class lifestyle
- A more sophisticated industry
  - Workers
  - Owners
  - Managers
- National, uniform standards for contractors
- In a position to be selective, to say “no” to unqualified workers/mgrs
- People understand the need for CEUs/pay linked with certification
- Contractors are more profitable
- Construction is an industry of lifelong learners
- 70% of U.S. high school graduates are gainfully employed with skills
- Higher quality people in construction—.300' hitters
- The Carpenters union has 1.5 million members

## **Obstacles**

- Inertia of status quo
- Low status; perceived negative industry image
- Accelerating pace of change of industry
  - Risk management
  - Regulatory management
- Undeclared labor market
- Low use of information technology
- Highly fragmented industry (silos)→sub optimization
- Collision between the demand for training and an uneducated class of owners
- Perceived value by owner/corporate teams
- Parents and guidance counselors steering kids away from construction

## **Strategies**

- Demonstrate benefits of lean practices
- Get the facts
  - Remove hesitation of small companies
  - Find out why parents do/do not advise their children to pursue construction careers; especially parents who work in construction
- Develop and communicate a compelling story
  - Problem
  - Consequences of inaction
  - Potential available

- Identify worker as real person
- Increase PR about the industry
- Increase collaboration to change the way we do work-change work practices
- Take responsibility for educating potential workers
- Articulate “common ground”/platform that we agree on
- Joint training program—Boldt, Carpenters, LCI
- Expand this conversation to “a larger room”:
  - Identify missing stakeholders now!
  - Include the design side
  - Include small/medium sized contractors
- Capture success stories/accumulated knowledge
- Experiment further—New Mexico?
- Develop a specific list of what we can say and do
- Proceed nationally and locally—a New Mexico initiative
- Determine the organizational form or lead entity for the movement

### ***Action Items***

1. Issue minutes of this meeting and post presentations on the web—by May 16, 2005—LCI (Ballard & Howell)
2. Organize a press release on this symposium—by May 23, 2005—LCI (Howell)
3. Update LCI white paper as first draft of agreement/manifesto, including the facts that need to be collected/verified—by May 23, 2005—LCI (Ballard)
4. Get comments on white paper back to Ballard—by June 6, 2005—symposium attendees
5. Issue manifesto after review and agreement by all—June 20, 2005—LCI (Ballard)
6. Develop white paper into an online story—by June 27, 2005—Toups
7. Issue a plan for developing and implementing a (possibly single) supervisory training program—by July 1, 2005---Boldt, Carpenters, LCI (Howell); NCCER, LCI (Howell)
8. Issue plan for a pilot project to implement some of the strategies from this symposium (Last Planner, Pocket Toolbox, Helping Hands, soft skills in supervisory training, mentors and role models, etc.) in New Mexico—by August 1, 2005—NM AGC, UNM, JB Henderson, PM Tech, John Toups (others will be enrolled).
9. Include presentation on NM pilot and all action items at LCI Congress—Sep 19, 2005—speakers to be determined

### ***Other Things That Need Doing***

- Learn how to improve P.R. and marketing skills/approach
- Make presentations at national conferences
- Get national AGC to buy-in
  - a. Vicki send along white paper
  - b. Ask Howard Mock, NECA, et al. to help
- Write foundation document with more facts, compelling story, etc.
- Request Doug McCarron to begin a dialogue with other national unions around this initiative—Dave Barber
- Ask Greg Sizemore for topics on CURT’s agenda; to define CURT’s role in this initiative—Greg Howell

- Poll people in the industry regarding what they say to their kids about construction careers
  - a. NM AGC
  - b. UNM

### ***Plus/Delta at close of Symposium***

+	Delta
<ul style="list-style-type: none"> <li>-Format: presentations 1<sup>st</sup> day, discussion 2<sup>nd</sup> day</li> <li>-Engagement of everyone</li> <li>-Honored to be here working on a solution</li> <li>-Tamaya facility</li> <li>-Global/int'l perspective</li> <li>-Recording job</li> <li>-Organized labor's presence and participation (4 trades)</li> </ul>	<ul style="list-style-type: none"> <li>-Need public owners; e.g., APS, GSA, Sandia</li> <li>-Need A/Es</li> <li>-Need other large NM contractors</li> <li>-Send minutes and announcement to general LCI mailing list</li> <li>-Also to McGraw-Hill, etc.</li> </ul>