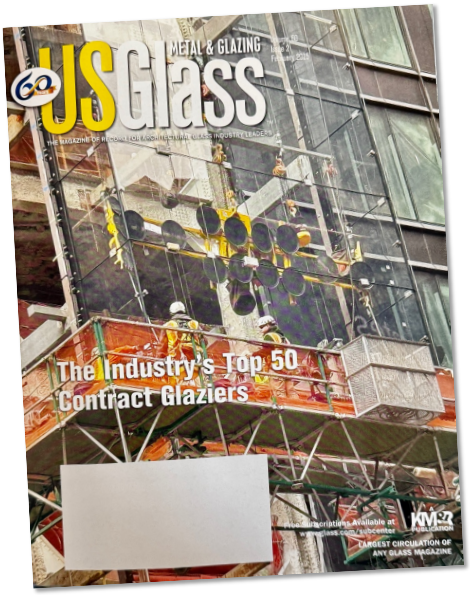
BEC CONFERENCE™

MARCH 2-4, 2025
LAS VEGAS
GLASS.ORG

What Lean Construction Means for Your Glazing Firm



Page 10: Contract Glazing Greatness

"Contract glazing is not a business for the faint of heart…one mistake or one bad job can bring DEATH."

- Debra Levy, glass.com

BEC CONFERENCE™

Speaker Introduction

ON POINT LEAN CONSULTING

Dave MacNeel
Principal & Lean Construction Coach

- Founded OPL Consulting in 2013
- 37 years in Construction Field Ops
- 20+ Years as a Trade Contractor
- Applying Lean since 2001

BEC CONFERENCE™

Objectives

- What is Lean Construction?
- Why Do I Need Lean Construction?
- How Do I Get Started?

BEC CONFERENCE™

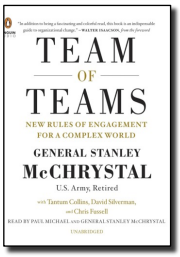

SILVERTON
Various Lean Projects – Las Vegas, Seattle, Los Angeles, New York
BEC
CONFERENCE™


Under Construction – Las Vegas, Honolulu, Seattle, Los Angeles, New York
BEC
CONFERENCE™

What PROBLEM Are We Trying to Solve?

Shared Knowledge

Deep Collaboration



COMPLEXITY

Rapid Adaptability

Extreme Ownership

BEC CONFERENCE™

What is Lean? (Not an Acronym)

Definition:

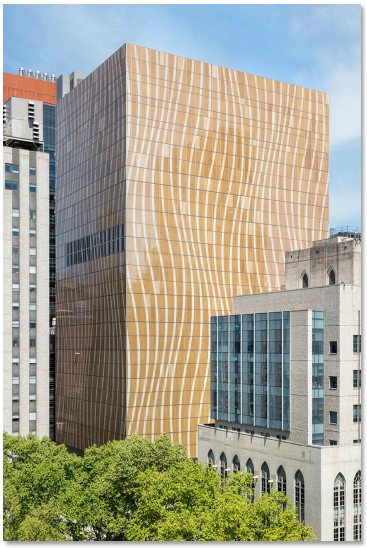
Doing WHAT is needed, WHEN it is needed, with the MINIMUM amount of Time, Material, Labor, Equipment, Space, and Expense.

BEC CONFERENCE™

What is Lean Construction?

Core Principals:

- **Continuous Improvement & Respect for People**
- **Value, Waste, & Flow**
- **Reliability & Predictability**



DHK Presbyterian Hospital – New York, New York

BEC CONFERENCE™

Why Lean Construction?

At the Project Level:

- **Faster Completion**
- **Enhanced Quality**
- **Better Safety**
- **Less Stress**

Universal Studios Cabana Bay – Orlando, Florida

BEC CONFERENCE™

Why Lean Construction?

Benefits for Contractors

- **Increased Efficiency**
- **Cost Savings**
- **Competitive Advantage**

1271 Avenue of the Americas – New York, New York

BEC CONFERENCE™

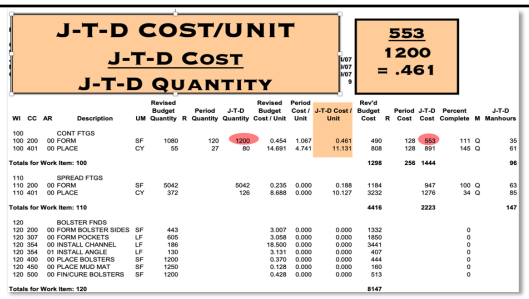
Palo Alto Medical Foundation – San Carlos, California

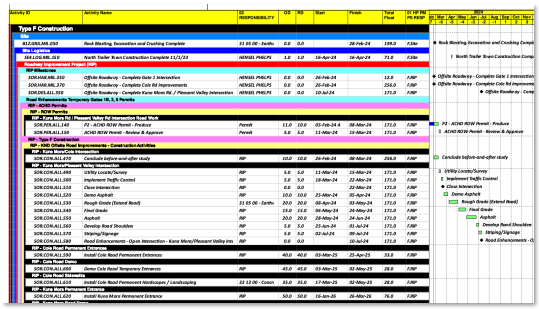
BEC CONFERENCE™

Historical "Lean"

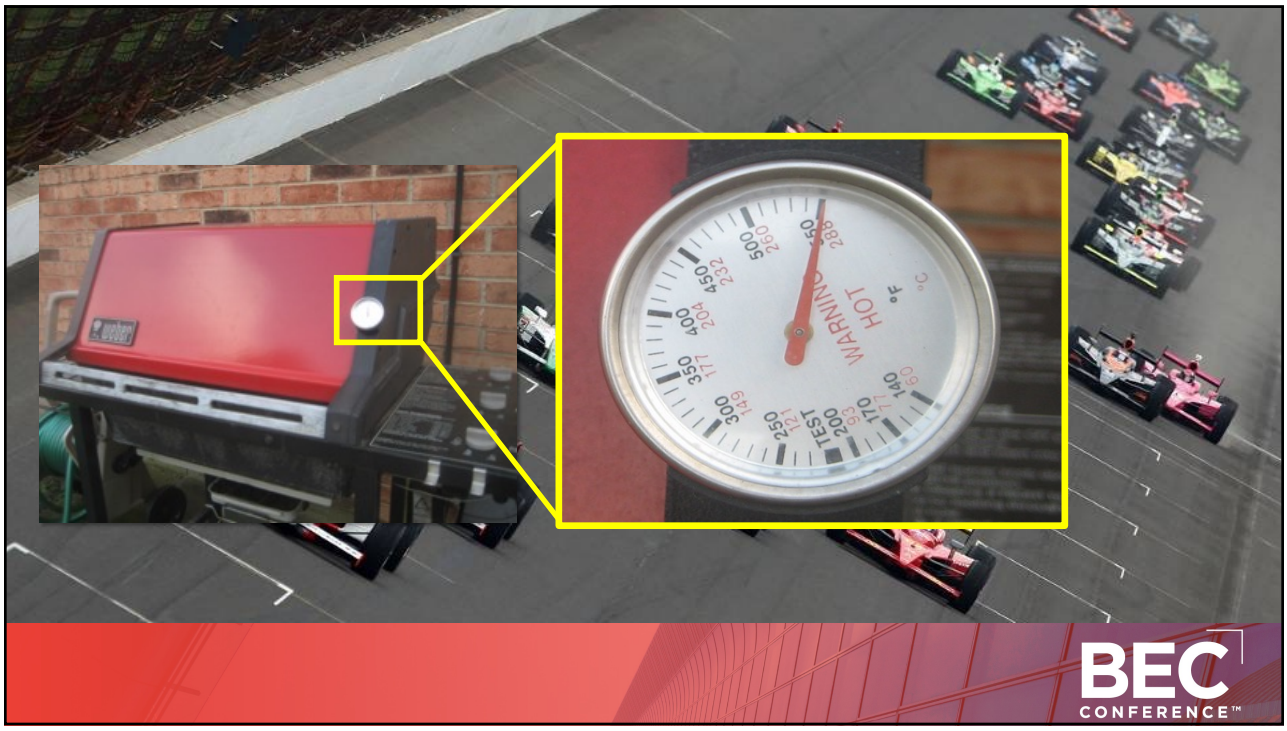
Efficiency Tracking

- Cost Reports
- Labor Reports
- Schedules

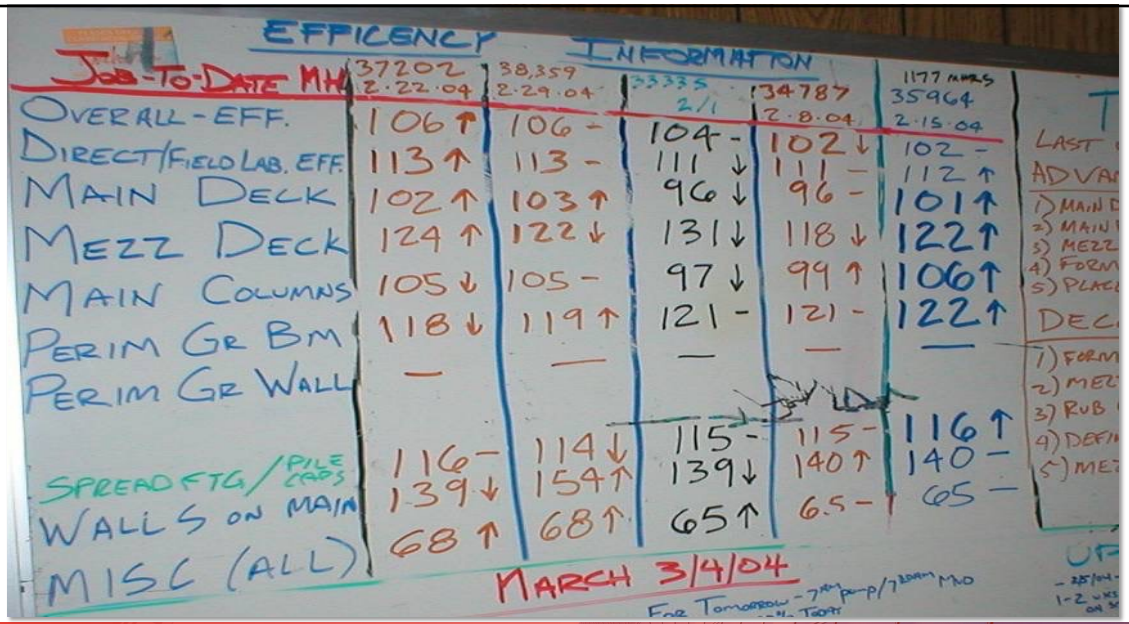




BEC CONFERENCE™



BEC CONFERENCE™

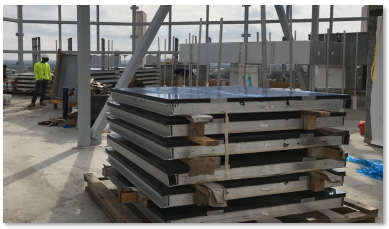


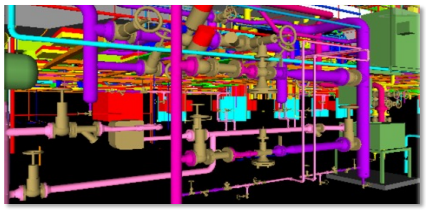
BEC CONFERENCE™

Lean at the Field Level

Lean Tools:

- **Just-In-Time Delivery**
- **BIM Modeling & AR**
- **Prefabrication & Kitting**





BEC CONFERENCE™

Starting Point : 5S

BEC CONFERENCE™

Next Step: The 8 Wastes - DOWNTIME

- Defects
- Overproduction
- Waiting
- Non-utilization of talent
- Transportation
- Inventory
- Motion
- Extra processing

Goal:

ELIMINATE

SIMPLIFY

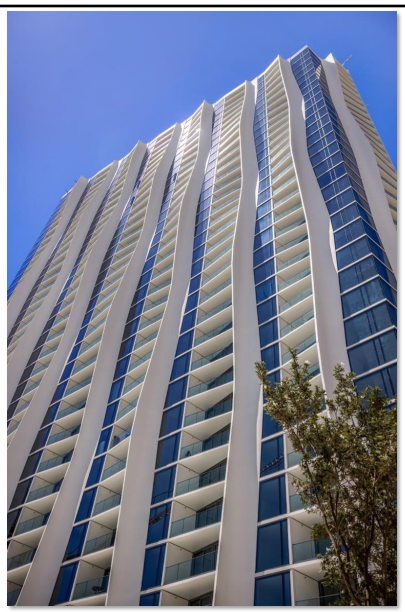
REDUCE

BEC CONFERENCE™

The Operating System

Last Planner System®

- Milestone Planning
- Phase Pull Planning
- Make-Ready Planning
- Weekly Work Planning
- Daily Production Check-Ins
- Learning & Improving



Ward Village Ko'ula Tower – Honolulu, Hawaii

BEC CONFERENCE™

Case Study Results: Lean vs Traditional

- Duration: 3 Months Faster
- Productivity: 12% Fewer Hours
- Overtime: 50% Less
- Peak labor: 150 Fewer Craft Workers
- Total Cost: 17% Less (~$6MM)

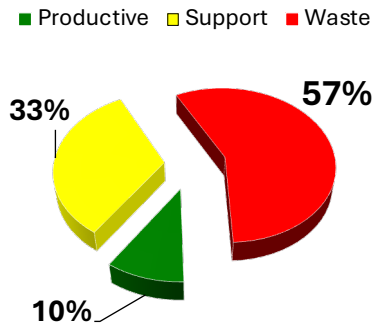
Thyssen-Krupp Steel Mill – Mt Vernon, Alabama

BEC CONFERENCE™

Industry Drivers

What's Driving Lean?

- Client Demand
- Competition
- Technology
- Waste



Wilshire Grand – Los Angeles, California | CII Study

BEC CONFERENCE™

Implementing Lean

Immediate Take-Away Strategies:

- Apply 5S & Eliminate Waste
- Implement Last Planner System
  - Collaborative Weekly Planning
  - Daily Production Check-ins

PNC Tower Renovation - Cincinnati, Ohio

BEC CONFERENCE™

Implementing Lean

Long-Term Strategies:

- Develop a Continuous Improvement Mindset thru Training & Education
- Focus on Deep Collaboration
- Predict, Measure, & Improve (PDCA)
- Develop Internal Lean Champions

Universal Studios Cabana Bay – Orlando, Florida

BEC CONFERENCE™

World of Lean Construction

Continuous Improvement ✓
Last Planner System® ✓
Optimize the Whole ✓
Respect for People ✓
Plan-Do-Check-Act ✓
Generating Value
A3 Thinking
Little's Law
Reliability
Takt Time
Pull vs Push
The 8 Wastes ✓
Predictability ✓
One-Piece Flow
Level Workflow
In-Place Quality
Standardized Work
Just-in-Time Delivery ✓

Takt Planning
Relational Contracting
Shared Risk & Reward
Choosing by Advantages
Continuous Improvement ✓
Integrated Project Delivery

Big Rooms & Work Clusters
Network of Commitments
Conditions of Satisfaction
Target Value Delivery
Milestone Planning ✓
Phase Pull Planning ✓

Percent Plan Complete
Weekly Work Planning ✓
Make-Ready Planning ✓
Prefabrication ✓
Commitments
Daily Huddles ✓
Andon Chord
Prototyping
Learning ✓
Variation
Level Flow
Constraints ✓
Takt Control
BIM / VDC / VR ✓
McLeamy Curve
5S & Visual Control ✓
Basic Action Workflow
Production System Design

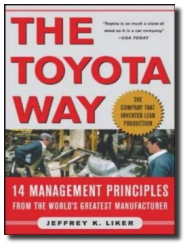
BEC CONFERENCE™

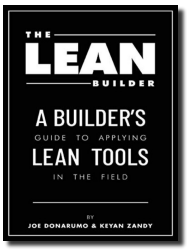
Closing Thoughts & Resources

- Become a Life-Long Learner
- Start Small
- Get Help

Lean Construction Institute
Transforming Design and Construction

Leanconstruction.org





David MacNeel
Cell: 513-500-4511
dmacneel@onpointlean.com

Contact QR

BEC CONFERENCE™