



TRI - REGIONAL JETS 2025





Lean Design-Build:

A Unified Strategy for
High-Performance Project Delivery



Lean Design-Build: A Unified Strategy for High-Performance Project Delivery

Moderator:

- Jackie Brower, Coastal Engineer and Scientist—Moffatt & Nichol

Speaker:

- Danny Villafane, Chief Engineer & Director—Planning Design & Construction, NAVFAC Southeast

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Society of
SAE
American Military Engineers



SPEAKER

Danny Villafane^{PE, CEM}
NAVFAC SE
Director—Planning, Design & Construction



- **Sports Teams:** Chicago Cubs, Little League Baseball
- **Vacation Spots:** Europe
- **Hobbies:** Wine tasting...
- **Cooler Project(s):** NSGB Energy Savings Performance Contract (ESPC)

(Link to project article: <https://online.fliphtml5.com/fedq/wobh/#p=52>)

Learning Objectives

- Learn how Lean Design-Build drives early alignment, continuous improvement, and flow efficiency across the entire project lifecycle
- Explore practical strategies for forming high-performing teams
- Apply Target Value Delivery, and avoiding common pitfalls

Agenda

- Why & what is Lean Design-Build (LDB)?
- Principles
- Integrated Team Formation
- Project Governance
- Tools, Benefits, & Common Pitfalls
- Implementation
- Q&A / Discussion

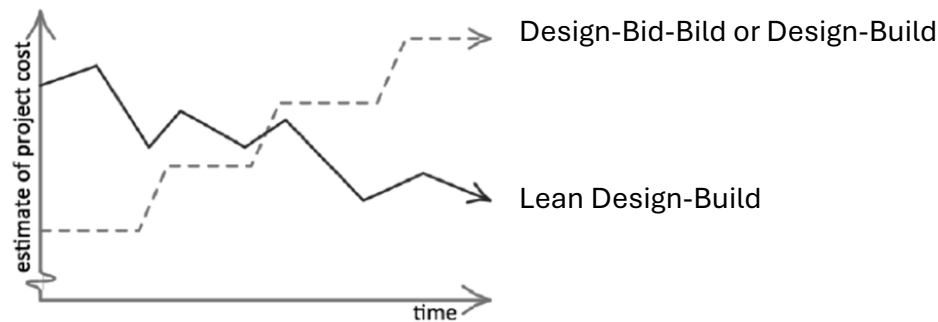
Do you have a working definition of LDB?

- a) Yes
- b) Kind of?
- c) Never heard of it



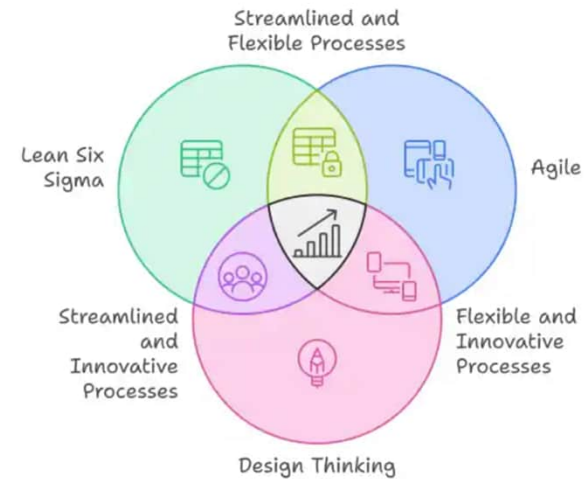
Why Lean Design-Build (LDB)?

- Industry challenges: waste, rework, misalignment
- Need for speed, cost certainty, and value—less prescriptive→more performance
- Integrated project delivery as a strategic imperative



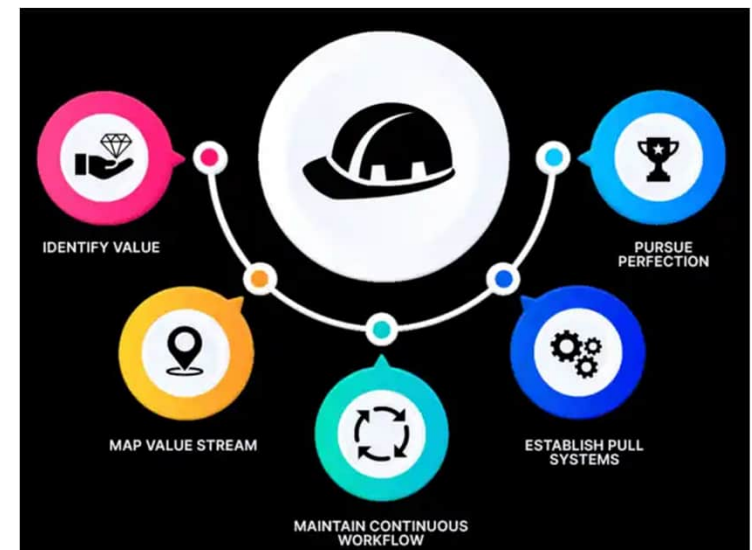
What is LDB?

- NOT Lean + Design-Build separately
- A unified, integrated philosophy:
 - One team, early collaboration
 - Value-focused decisions
 - Flow efficiency over siloed delivery



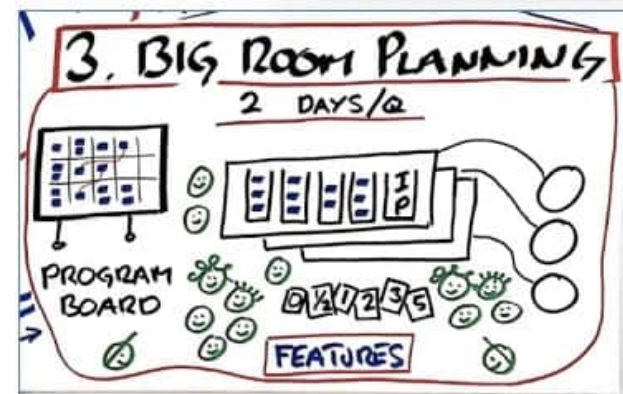
Principles of LDB

- Aligned goals and shared risk/reward
- Value-driven design (not just cost cutting)
- Continuous flow and production thinking
- Rapid feedback and decision-making
- Embrace technology!



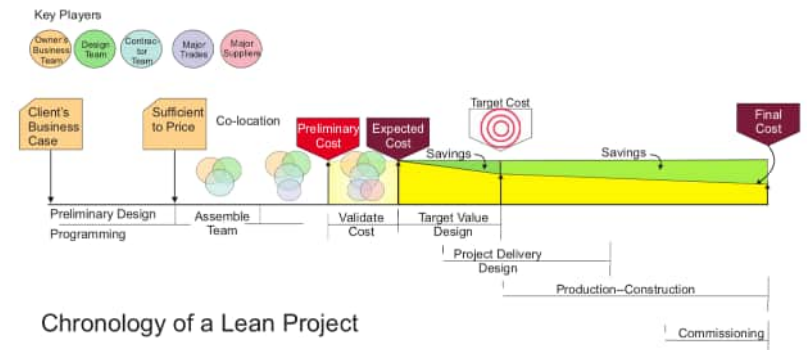
Integrated Team Formation

- Early involvement of all stakeholders
- Co-location or virtual “Big Room”
- Shared goals and accountability
- Trust-based collaboration



Target Value Delivery (TVD)

- Design to budget (not budget to design)
- Continuous estimating during design
- Designers and builders working in tandem
- Aligning cost with value priorities



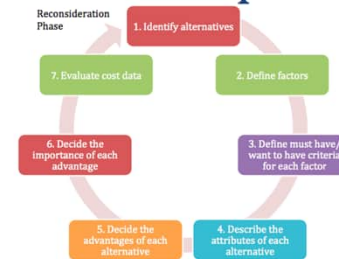
© Steve Brown, 2008; updated March 2, 2011

The main objective of TVD is to achieve the “holy grail” of LDB—to have reliable cost, schedule, and scope.

Lean Governance & Decision Making

- Choosing by Advantages (CBA) or A3s
- Transparent, collaborative decisions
 - At the right time & at the right level
- Rapid evaluation of trade-offs
- Thinking for structured problem-solving

CBA Steps



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**A3 PROBLEM SOLVING
TEMPLATE**

Design & Construction Flow Integration

- Pull planning from project milestones
- Takt planning for consistent workflow
 - Use a time-by-location grid, or "takt time," to create a continuous, rhythmic flow of work across different project zones
- Standardization where it adds value
 - Ensure a predictable and balanced workload for all teams
- Minimize handoffs and delays



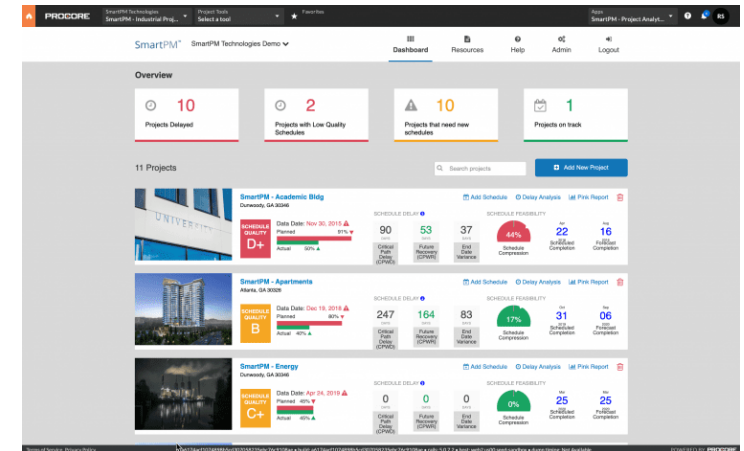
Lean Design-Build Process Phases

Four Phases:

- Validation & alignment
- Collaborative design development
- Lean construction execution
- Learning & handover

Tools that Power Lean Design-Build

- Big Room planning (planning charrettes?)
- Visual management & dashboards
- Real-time production tracking
- Key performance indicators



Key Benefits Realized



Faster delivery



Lower total cost of ownership



Higher customer satisfaction



Stronger team culture & performance

Common Pitfalls to Avoid



LEAN AS A CHECKLIST,
NOT A MINDSET



MISALIGNED
CONTRACTS OR
INCENTIVES

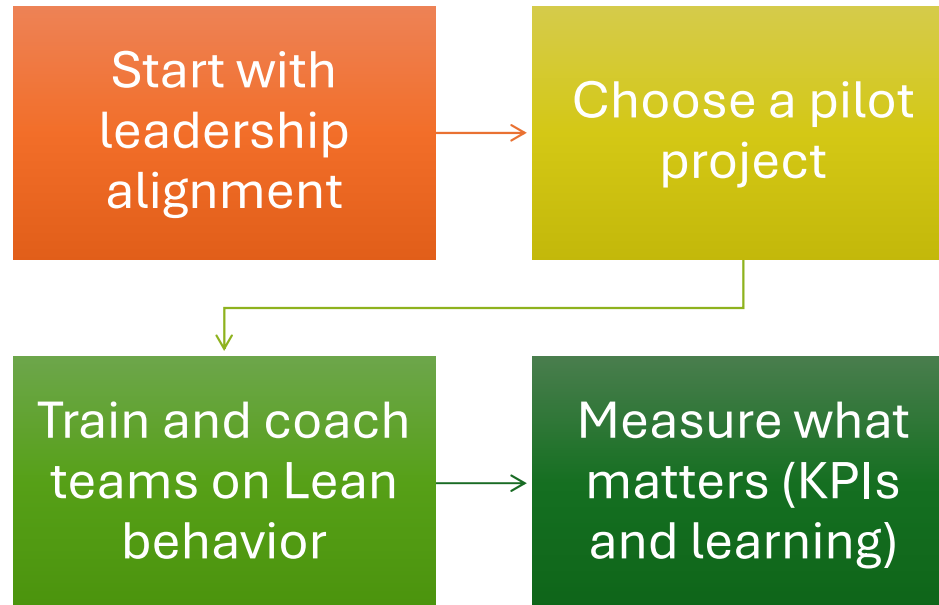


INSUFFICIENT OR LACK
OF EARLY ENGAGEMENT



LEADERSHIP GAPS

Implementation Roadmap



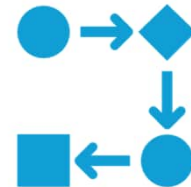
Final Thoughts



Lean Design-Build is not a toolset—it's a cultural shift



Builds better outcomes and better teams



Start with one step: align, listen, and iterate

Q&A / Discussion





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