

# BuildSG LEAD Exchange DPR's Lean Journey

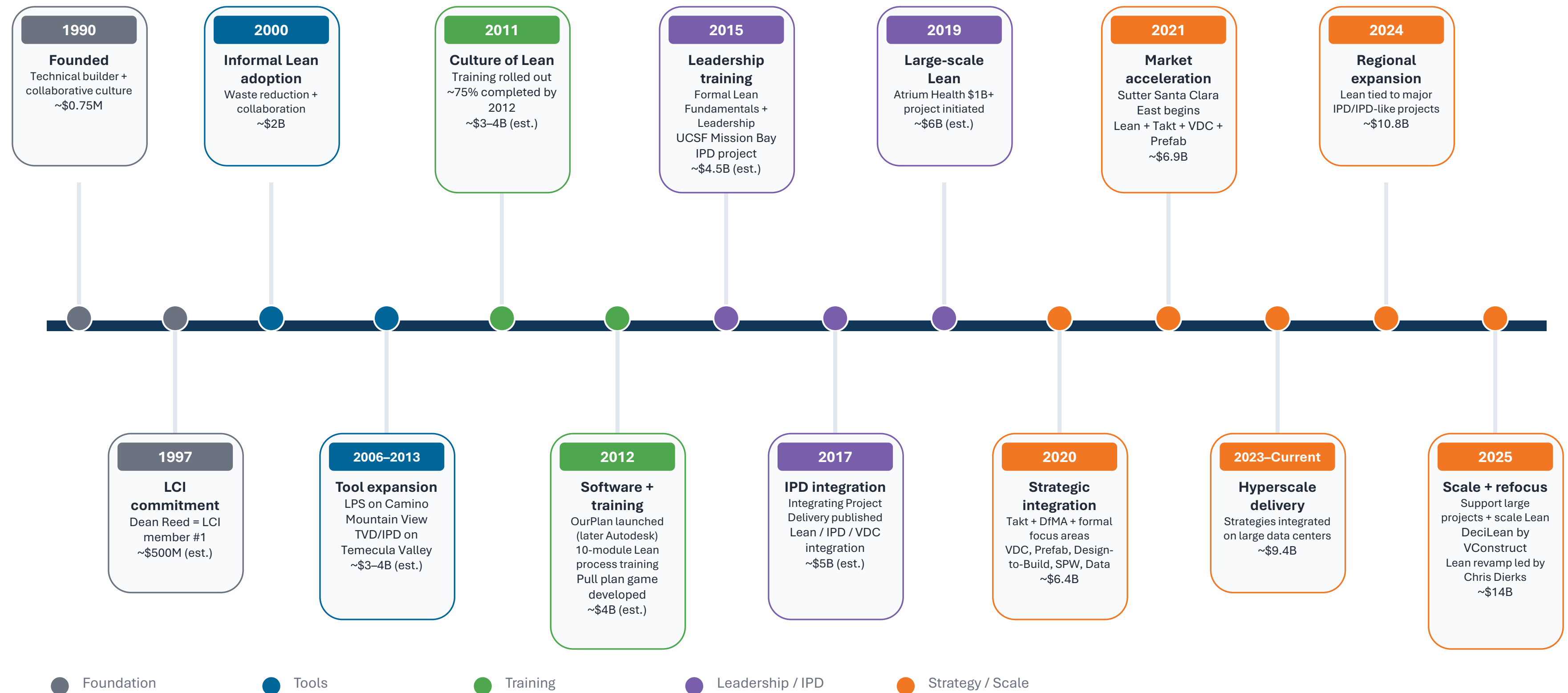
Paz Arroyo & Chris Dierks  
DPR Construction

Presenter: Paz Arroyo, [paza@dpr.com](mailto:paza@dpr.com) and Chris Dierks,  
[chrisd@dpr.com](mailto:chrisd@dpr.com)

# DPR Lean Journey Timeline: Page 8 Milestones

Source: Table 1 – Lean Milestones & Revenue

From Lean culture → tools → training → integrated strategy → scaled operations (1990–2025)



● Foundation    ● Tools    ● Training    ● Leadership / IPD    ● Strategy / Scale

**Shift across 35 years: Culture → Lean tools → Enterprise training → Integrated delivery → Operating system at scale**

# 1990 – 2000: Foundations

- Lean Mindset embedded from Day 1
- "Ever Forward" = Continuous Improvement
- Decision-making pushed to lowest level
- Strong academic + industry partnerships
- Culture - first (not tool - first)



1990

**Founded**  
Technical builder +  
collaborative culture  
~\$0.75M



1997

**LCI commitment**  
Dean Reed = LCI  
member #1  
~\$500M (est.)

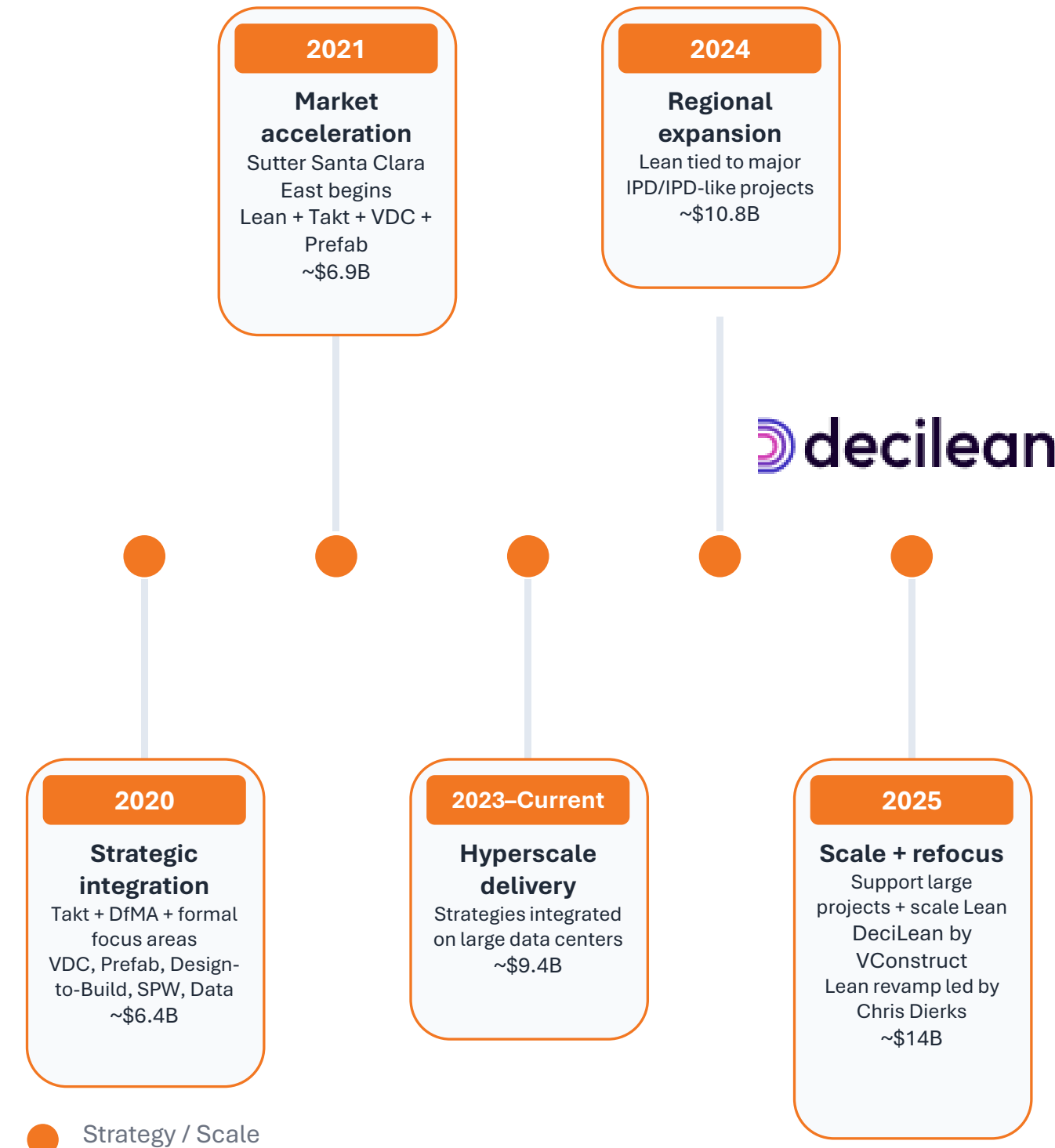


● Foundation


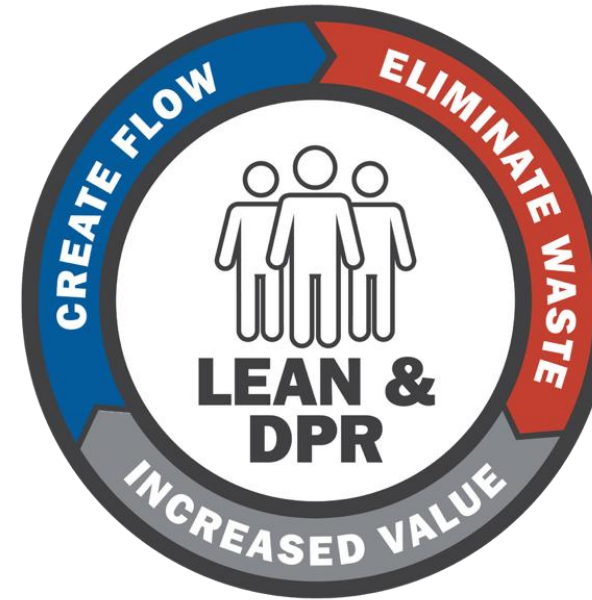


# 2020 – 2025: Lean = Strategy

- Design-to-Build approach
- VDC drives constructability + alignment
- Prefab scales speed + quality
- Self-Perform Work drives consistency
- Data + AI enable learning loops




# Integrating Lean into the BBF




**WORLD CLASS  
EH&S**

A safe and healthier project for both people and planet.



**FINANCIAL  
MANAGEMENT**

Financial targets are established accurately and achieved with proactive cost management and stewardship.




**PLANNING &  
SCHEDULING**

Predictable on-time delivery, with planning and scheduling expertise and efficient execution of work.



**HEALTHY  
TEAMS**

Enduring team relationships and engagement to ensure successful project execution.



**QUALITY  
EXPECTATIONS**

We establish clear quality expectations and consistently deliver our work.

**200+ Processes  
(Including  
Contract &  
Insurance)**

**40 were Lean**



# Sutter Santa Clara Acute Hospital Project

## CORE TEAM



Lane McCrea



Wayne Low



Bennie Barker

- 850,000 sf.
- 2.3 billion IPD project.
- Will provide healthcare specialty services, procedure capacity, and expanded primary care operations for the Santa Clara and Milpitas communities starting in 2032.
- Currently in the validation phase, and we plan to sign an IFOA agreement in 2026.

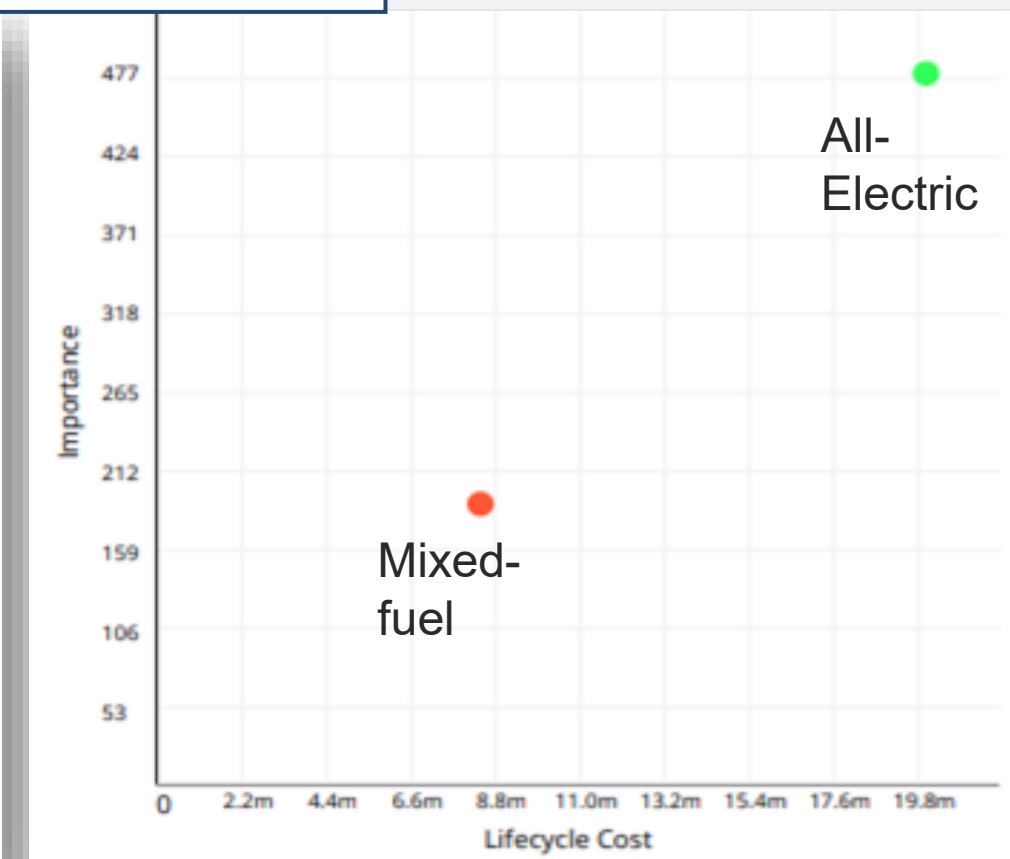
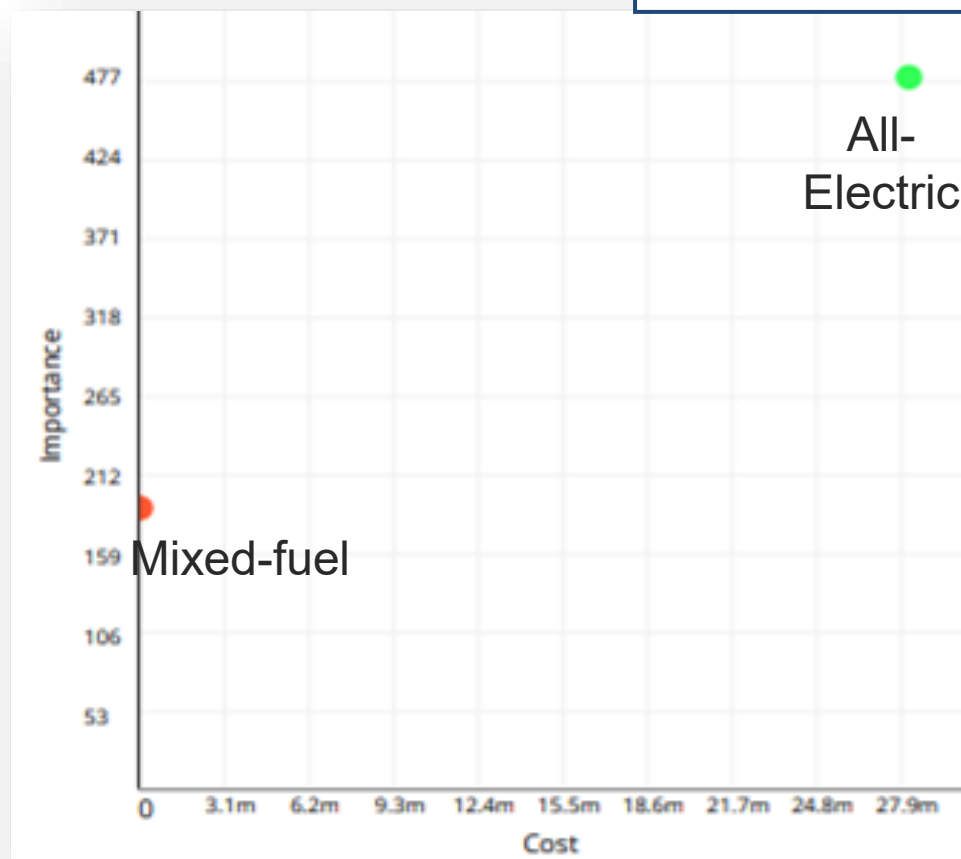
# Collaborative Decisions (IPD / IFOA)

## Team is making several key decisions:

- Basement or not
- Orientation & Shape
- CUP in the building or not
- Façade design
- Helipad or not
- Base isolation or not
- All electric vs. Mixed Fuel (baseline)



CBA All-electric vs. Mixed Fuel



CBA Workshop



### Advantages of **Mixed-Fuel**:

- Reduce timelines for providing power to the site
- Less vibration concerns

### Advantages of **All-Electric**:

- Better aligns with City req.
- Improve the entitlements process
- Reduces the CUP from 3 to 2-story
- Saves 15,000 gal of water/day (no cooling tower)
- Save between 6,000-8,000 SF

# Problem-solving & Accountability



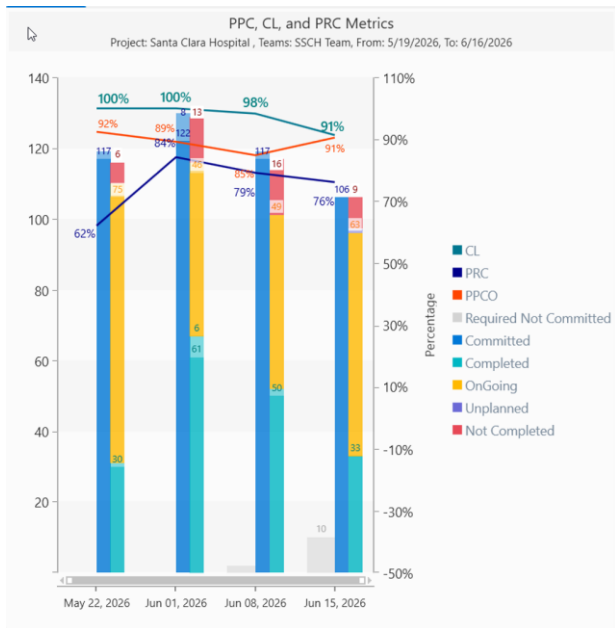
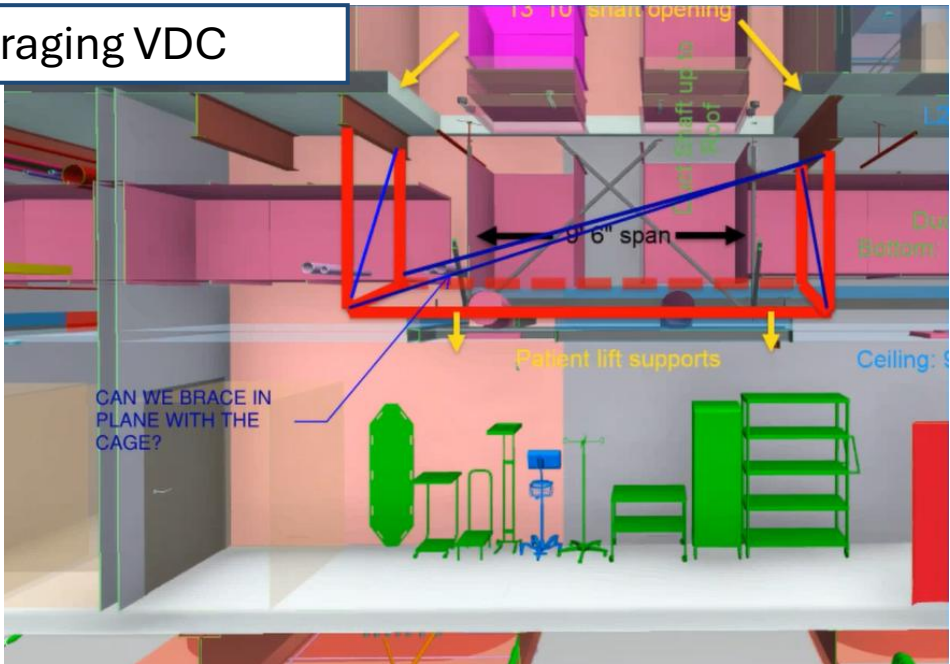
Problem Solving as a Team



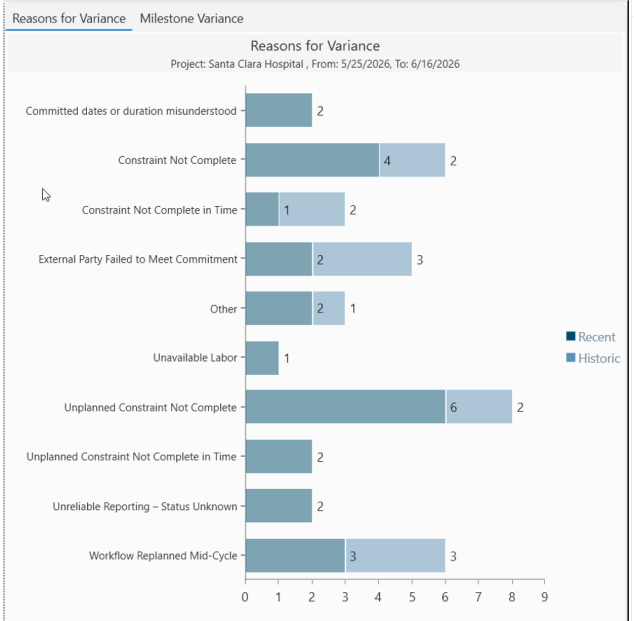
Design Daily Huddle



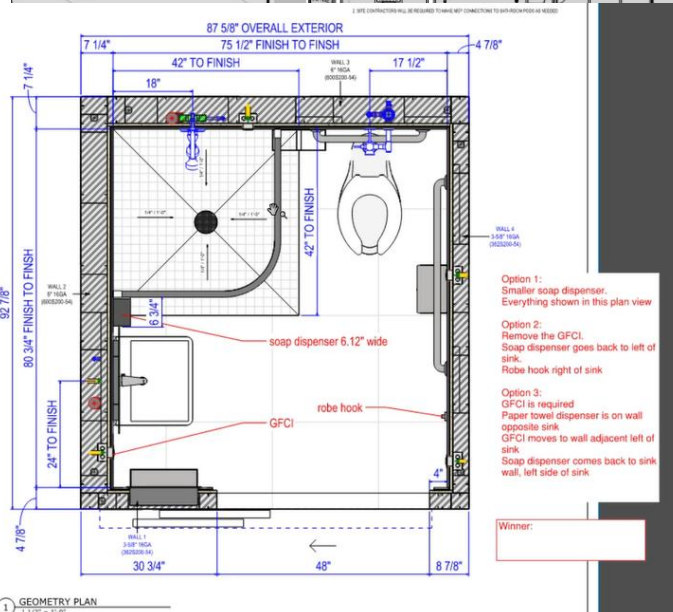
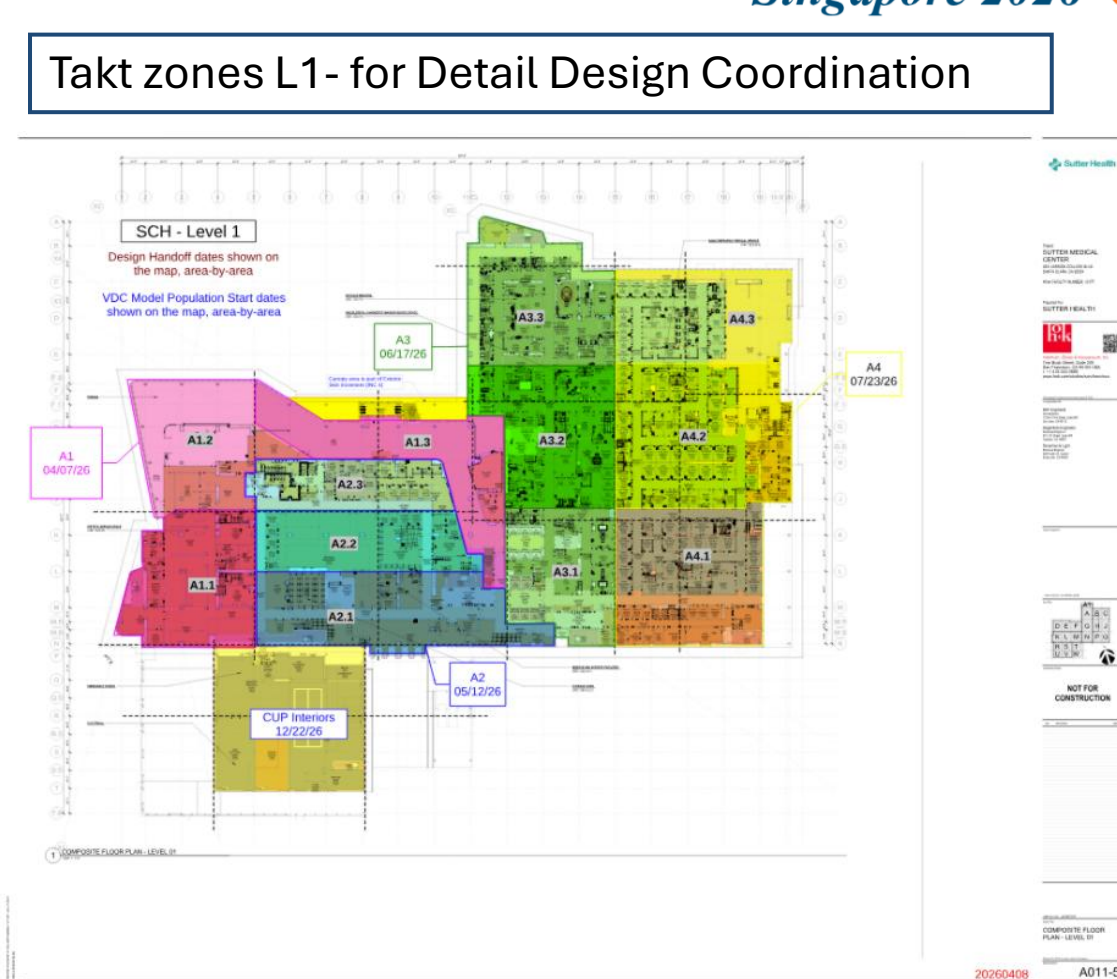
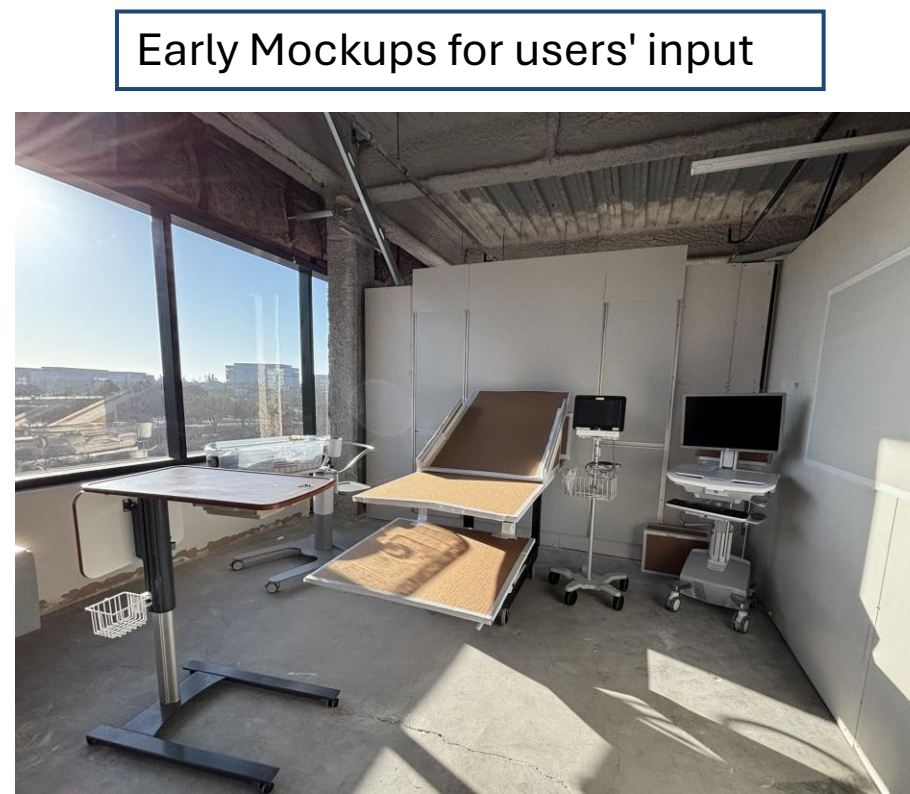
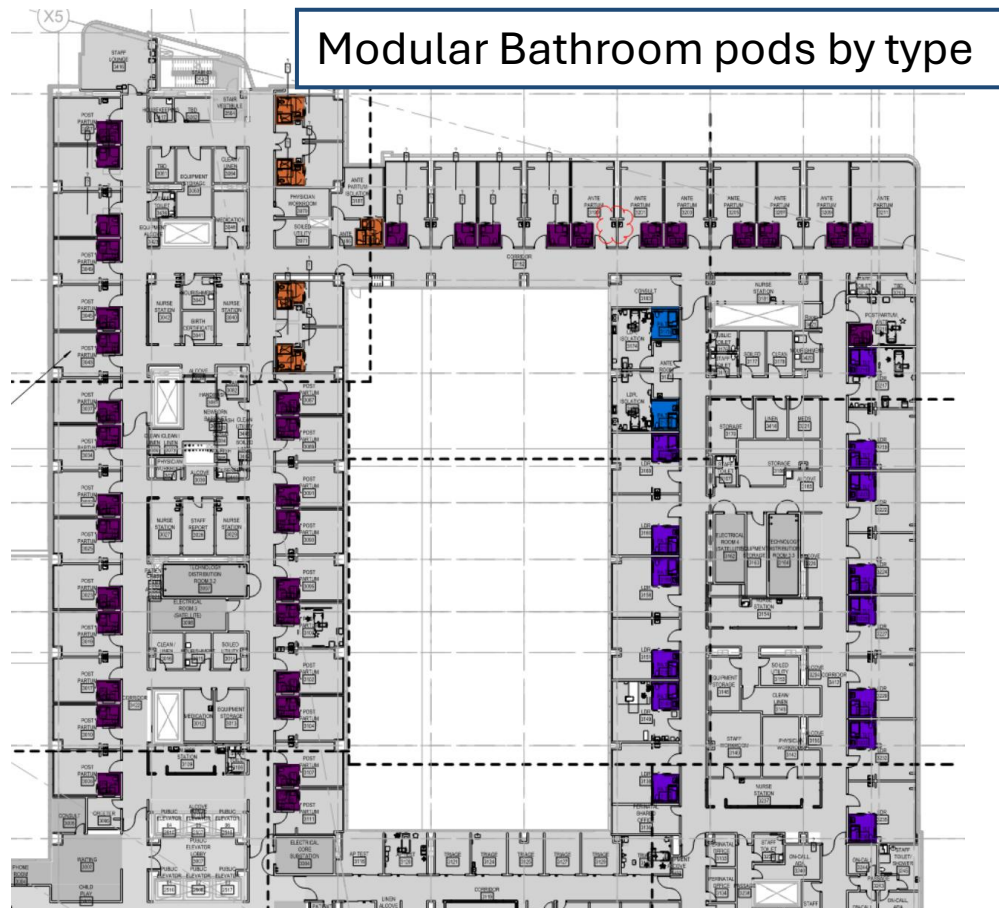
Leveraging VDC



BIG Room Weekly Metrics Review



# Takt for Detail Design + Prefab + VDC



Surgeons in a BIM tour



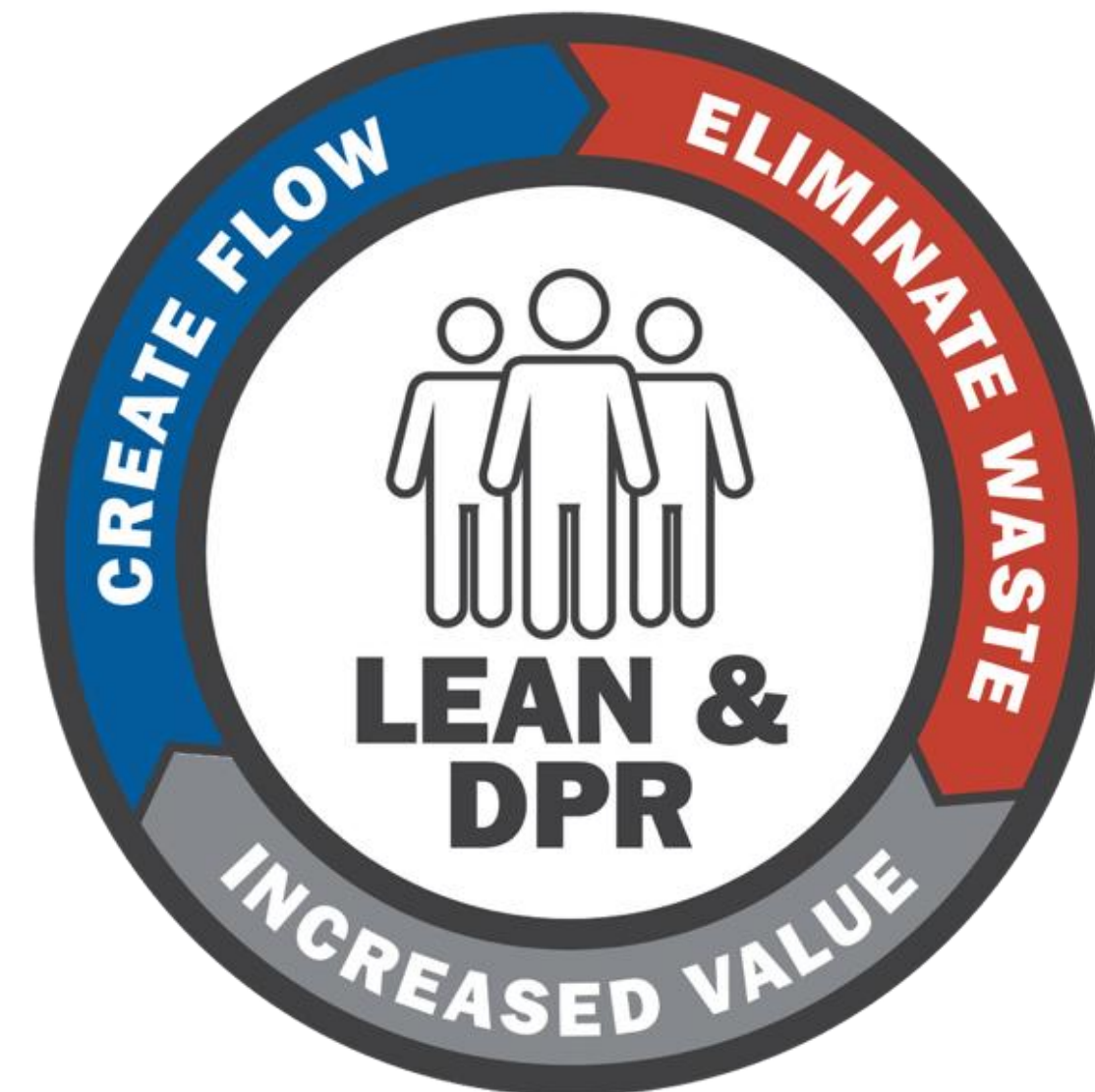
Takt trains L1-L4- for Detail Design Coordination

Level	Area	Component	Percentage	Component	Percentage	Component	Percentage	Component	Percentage	Component	Percentage
Level 1	Area 1	Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%	RCP	33%
	Area 2			Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%
	Area 3			Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%
	Area 4			Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%
Level 2	Area 2			Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%
	Area 3			Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%
	Area 4			Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%
	Area 1			Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%
Level 3	Area 2			Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%
	Area 3			Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%
	Area 4			Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%
	Area 1			Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%
Level 4	Area 2			Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%
	Area 3			Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%
	Area 4			Congested Areas O		Mains OH	33%	Mains, Branch	33%	Hangers & Sei	33%



# Strategic Tensions

- Identity around Lean
- Standardization vs innovation
- Corporate vs regional leadership
- Training scale vs project needs
- Experts (coaches) vs developing people



# Lessons Learned to Share

At DPR ... Figured out Lean can scale over decades

- Culture sustains Lean - not tools
- Leadership alignment is critical
- Scaling requires systems (BBF)
- Over-reliance on experts limits growth, but coaching is necessary
- Continuous reinvention is required

Growth introduces new risks and tensions

- The biggest risk: losing Lean identity
- The biggest opportunity: institutionalizing capability



# Thank you!

Paz Arroyo, [paza@dpr.com](mailto:paza@dpr.com) and Chris Dierks,  
[chrisd@dpr.com](mailto:chrisd@dpr.com)