

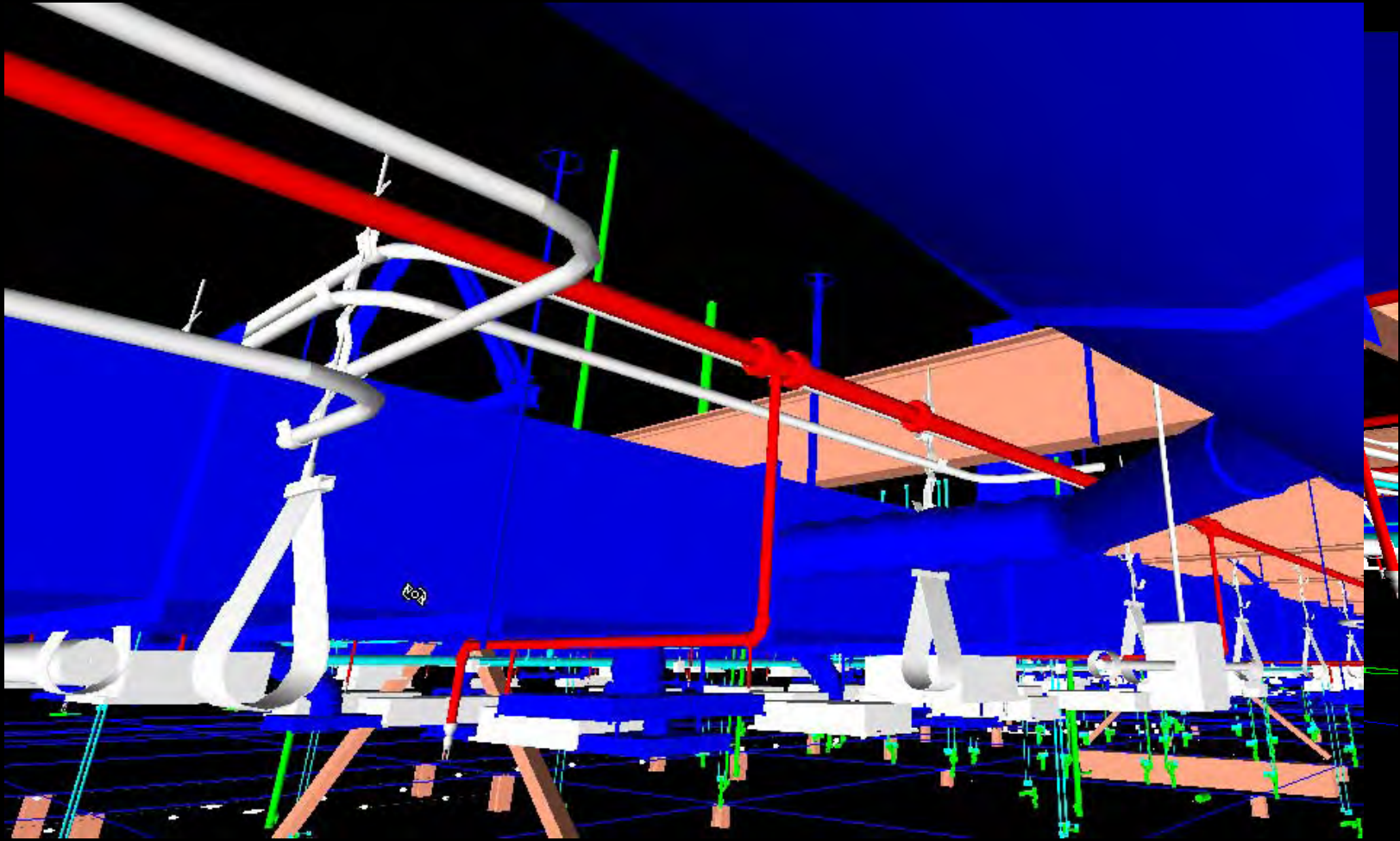
Virtual Building in Lean Project  
Delivery Process

Panel Presentations  
Lean Construction Institute  
Design Forum  
Berkeley, December 8, 2005

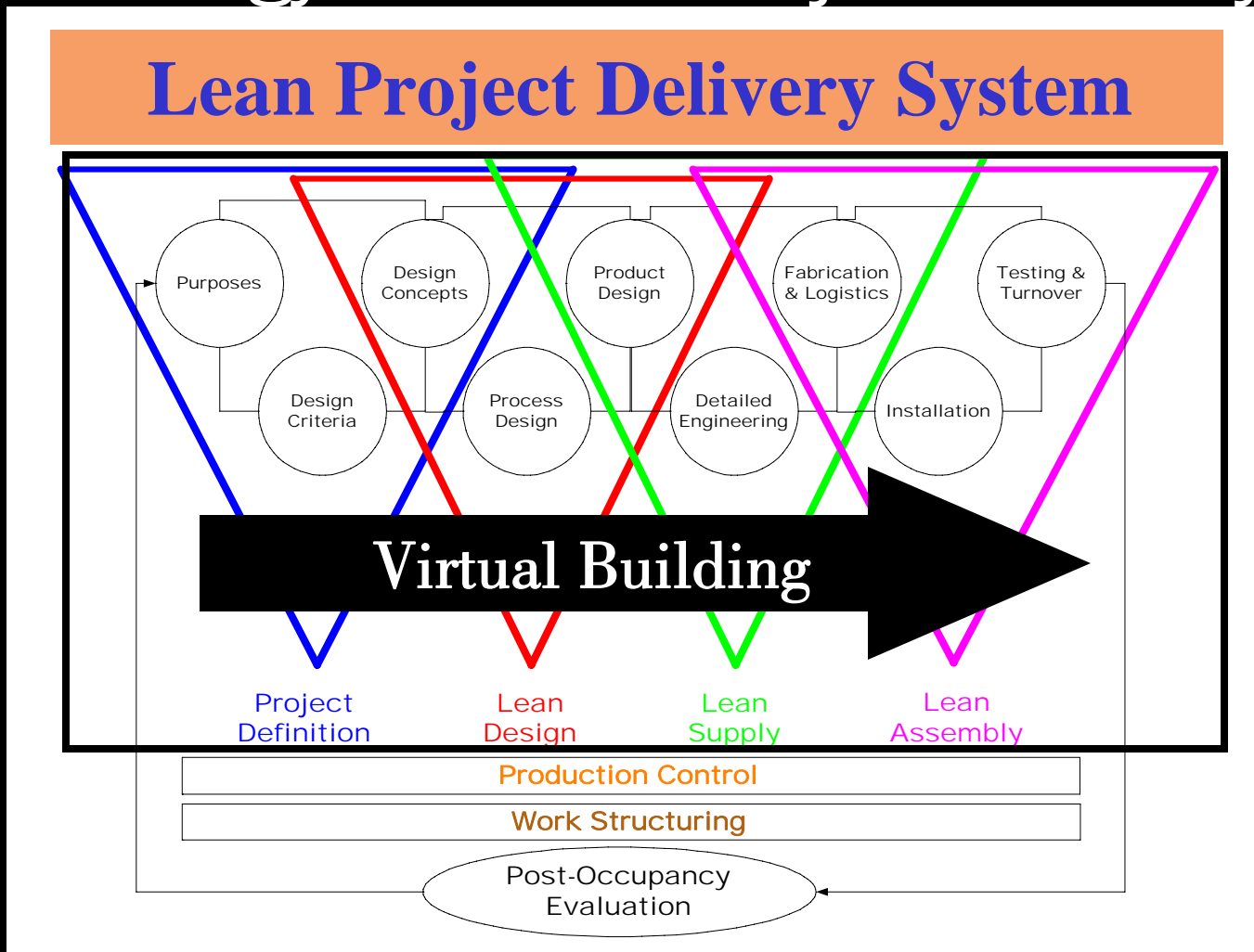


# Virtual Building in Lean Project Delivery Process

# How Does Virtual Building Help?



# “Virtual Building is an enabling technology for Lean Project Delivery”



# Why & How Does Virtual Building Enable Lean?

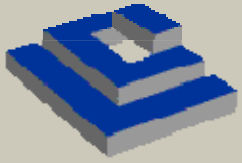
- **Design Concepts • Product Design**
  - 3D visualization to create a shared understanding of design
- **Process Design**
  - Construction sequence animated in 4D
- **Detailed Engineering**
  - HVAC, plumbing, fire protection and electrical coordination and shop drawings in 3D
- **Fabrication**
  - HVAC fabrication from 3D shop drawings
  - Plumbing and electrical pre-fab from 3D shop drawings
- **Logistics and Sequence**
  - Trade installations within areas sequenced in 3/4D

# Objectives for the session

- Gain an understanding of Virtual Building methodologies and technology available today
- Understand how Virtual Building technologies can be applied to Lean projects
- Understand lessons learned from practitioners

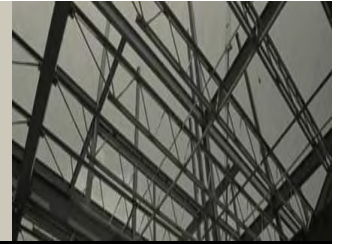
# Panelists

- **Dr. Martin Fischer**
  - Professor Stanford University, Director CIFE
- **David Fouche**
  - Corporate CADD Manager, Burt Hill Architects
- **Dean Reed**
  - Lean and Virtual Building Coordinator, DPR Construction, Inc.
- **James Choo**
  - Strategic Project Solutions
- **Dan Gonzales**
  - Director of Design and Construction Technology, RQ Construction



Virtual Building in Lean Project  
Delivery Process

Panel Presentations  
Lean Construction Institute  
Design Forum  
Berkeley, December 8, 2005



# Open Discussion Questions & Answers