

26TH ANNUAL



26TH LCI CONGRESS
OCTOBER 22-25, 2024

Mock-ups for Team Building, Communication and Quality

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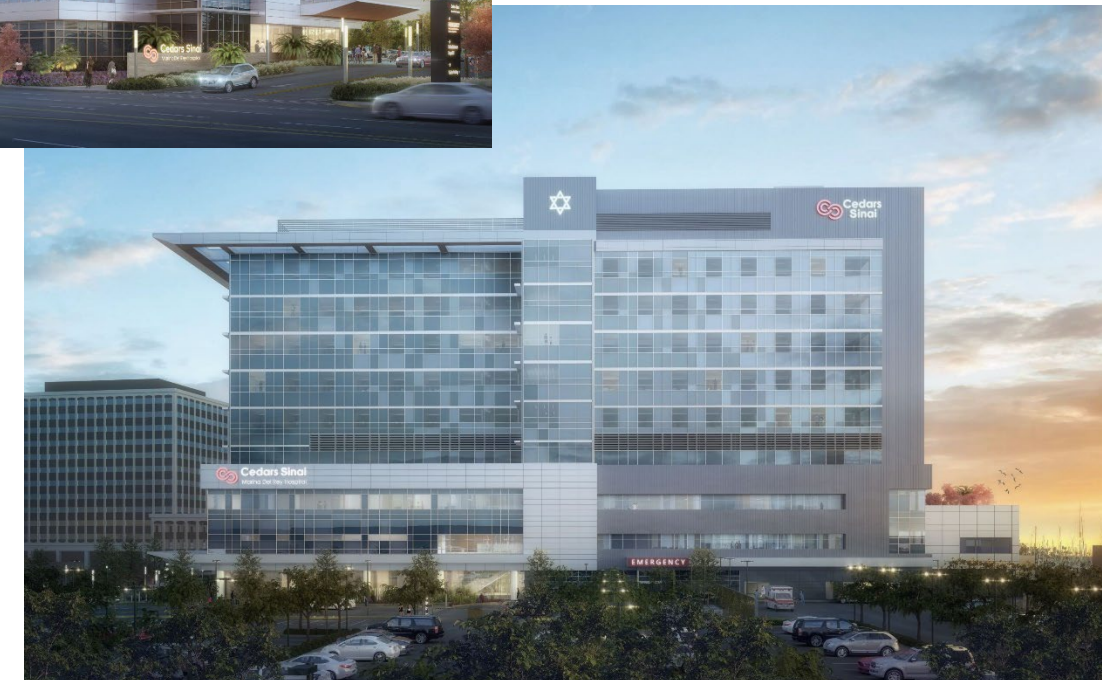
Kevin Spady, HDR Inc

SURFING THE WAVE OF LEAN DESIGN AND CONSTRUCTION

October 24, 2024

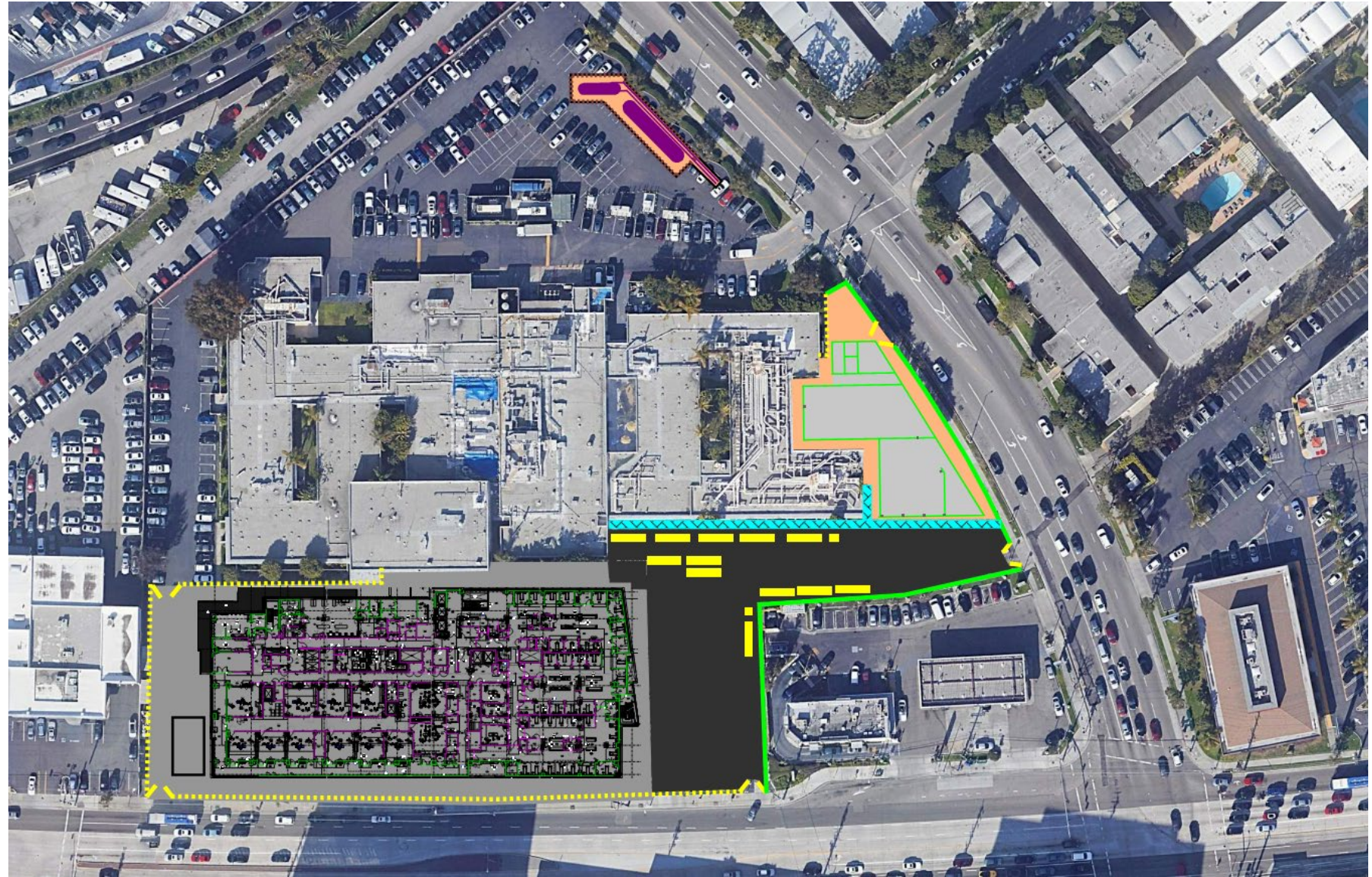
CSMDR Replacement Hospital Project Info

- 9 Story Hospital (Approx. 300,000 Sq Ft)
- 2 Story Energy Center (Approx. 25,000 Sq Ft)
- 160 Patient Beds
- OSHPD 1 Construction
- Phase 1 – Make Ready
- Phase 2 – Replacement Hospital and Energy Center Phase 1
- Phase 3 – Demo of Existing Hospital, Final Site and Energy Center Phase 2



Project Complexities

- Multiple Agency Approvals
- Repetition Risk
- Maintain Existing Operations
- Site Logistics / Access
- Soil Condition / Water Table



Why Do Mock-ups?

- Reduce Large Volume of RFIs
- Avoid Potential Schedule Delays
- Allow Team to Review Lessons Learned
- Identify Potential Constructability Issues
- Setting Inspection Expectations Prior to Work
- Quality Control

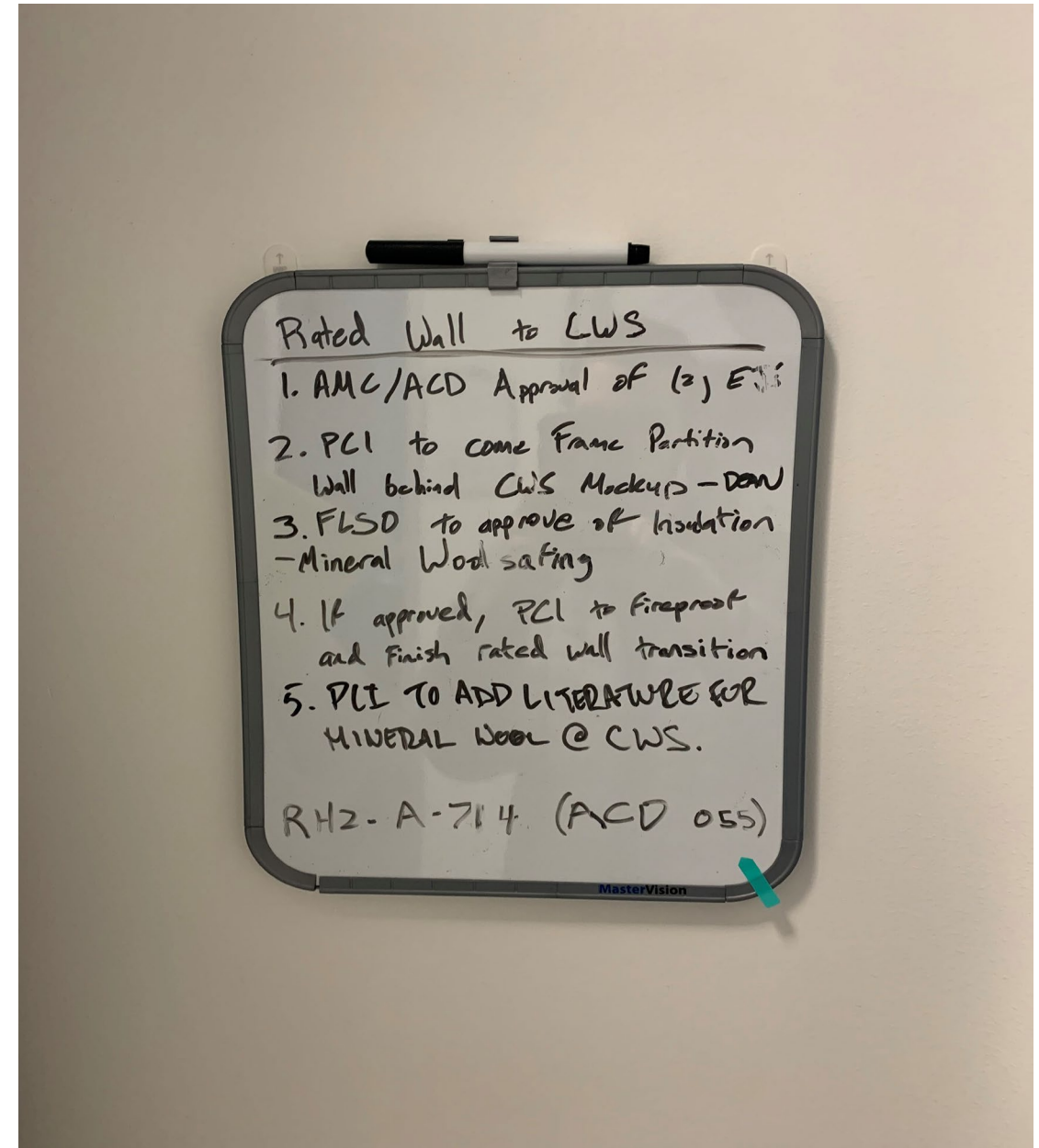


Project Mock-ups

- **Auto Door Operator**
- **Curtain Wall Embeds**
- **Patient Restroom Toilet**
- **Deck Inserts**
- **Fire Penetration**
- **Fire Hose Cabinet and Fire Extinguisher Cabinet**
- **Prefabrication**
- **Patient Room Showers**
- **Restroom Sinks**
- **Medical Gas Valve Box**
- **Curtain Wall Transition to Interior Framing**



Project Mock-up Review Meetings



Prefabrication Mock-ups

- Reduced Construction Time
- Improved Quality Control
- Safety
- Cost Efficiency
- Less Disruption on Site



Sink Mock-ups

- Incorporated prefab parts
- Structural Review
 - Stud spacing
 - Structural sink supports
 - Support of wall mirror due it being electrified
- ADA Clearance Review



Auto Door Operator Mock-up

- **Electrified Hardware / Power Coordination**
- **Device Location Coordination**
- **Verification of Scope Buyout**



Fire Penetration Mock-up

- Fire Dampers
- Duct Insulated and Non-Insulated
- Pipe – Copper and Cast Iron
- Insulated Pipes / Thickness Restrictions
- Conduits
- Listed Systems
- Engineering Judgments
- State Inspector Review



Patient Restroom Toilet Mock-up

- Intersection of Finishes
- Quality Control



Room Mock-ups



Navigating the Flow of Excellence: Field Execution



**Removal of
Waste**



**Optimize
the Whole**



**Built
Environment**



Collaboration



Resources



**Process
and Flow**



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In the spirit of continuous improvement, we would like to remind you to complete this session's survey! We look forward to receiving your feedback.

Contact Us

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Thank you for attending this presentation. Enjoy the rest of the 26th Annual LCI Congress!

How can you apply this tomorrow?

- *Leave your audience with simple actionable things they can bring back to their project teams and immediately implement. (New processes, ideas, tech or tools)*