

STL IPD Team

- Sutter Health
- California Pacific Medical Center
- SmithGroupJJR
- Boulder Associates Architects
- Degenkolb
- Silverman & Light
- Southland Industries
- BKF
- SWA Group
- Vantage
- Criterion
- Marshall Associates
- Kate Keating & Associates
- Schachinger
- Simpson Gumpertz & Hager
- Guidepost Solutions
- Syska & Hennessey
- HerreroBOLDT
- Pankow
- Herrick
- Harris Salinas
- Rosendin Electrical
- Southland Industries
- KHS&S
- Bagatellos
- Clark Pacific
- Lawson Roofing
- RLH
- Otis Elevator
- Ryan Engineering
- Advanced Pneumatic Tube
- SRS
- Fuel Oil Systems
- UCD









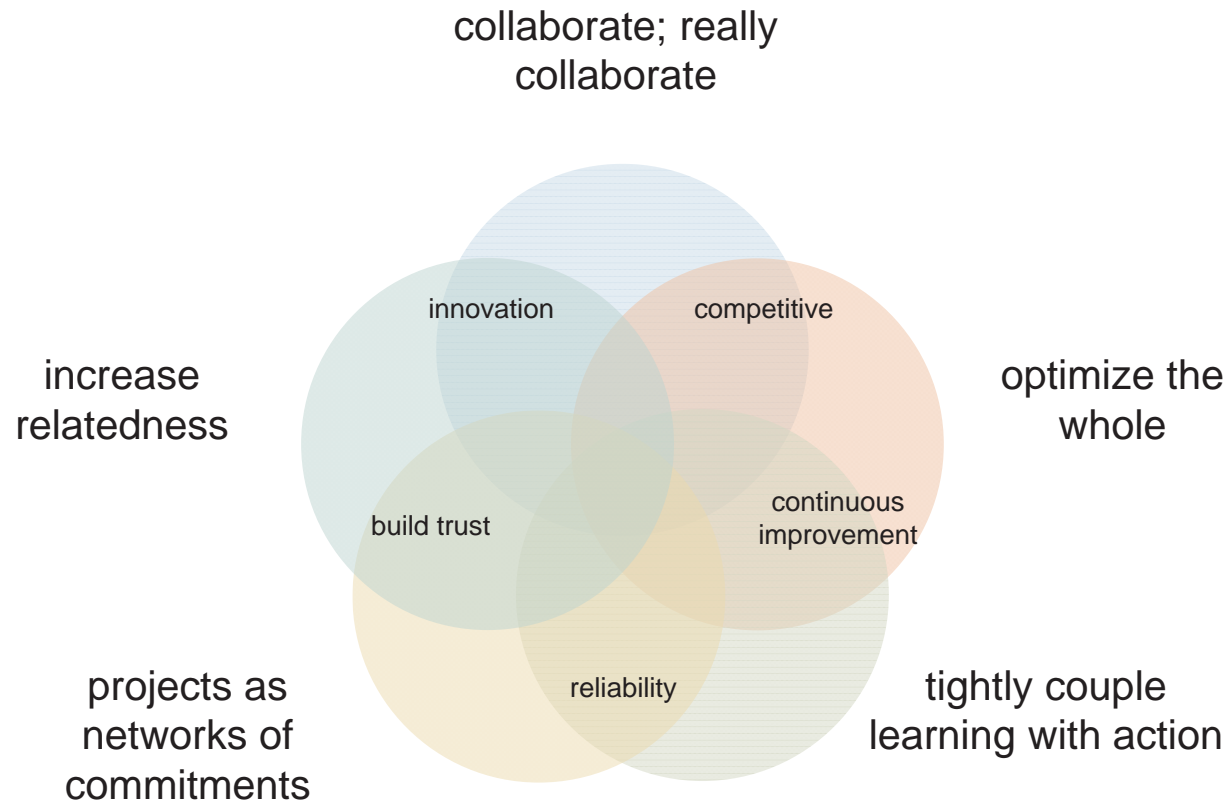


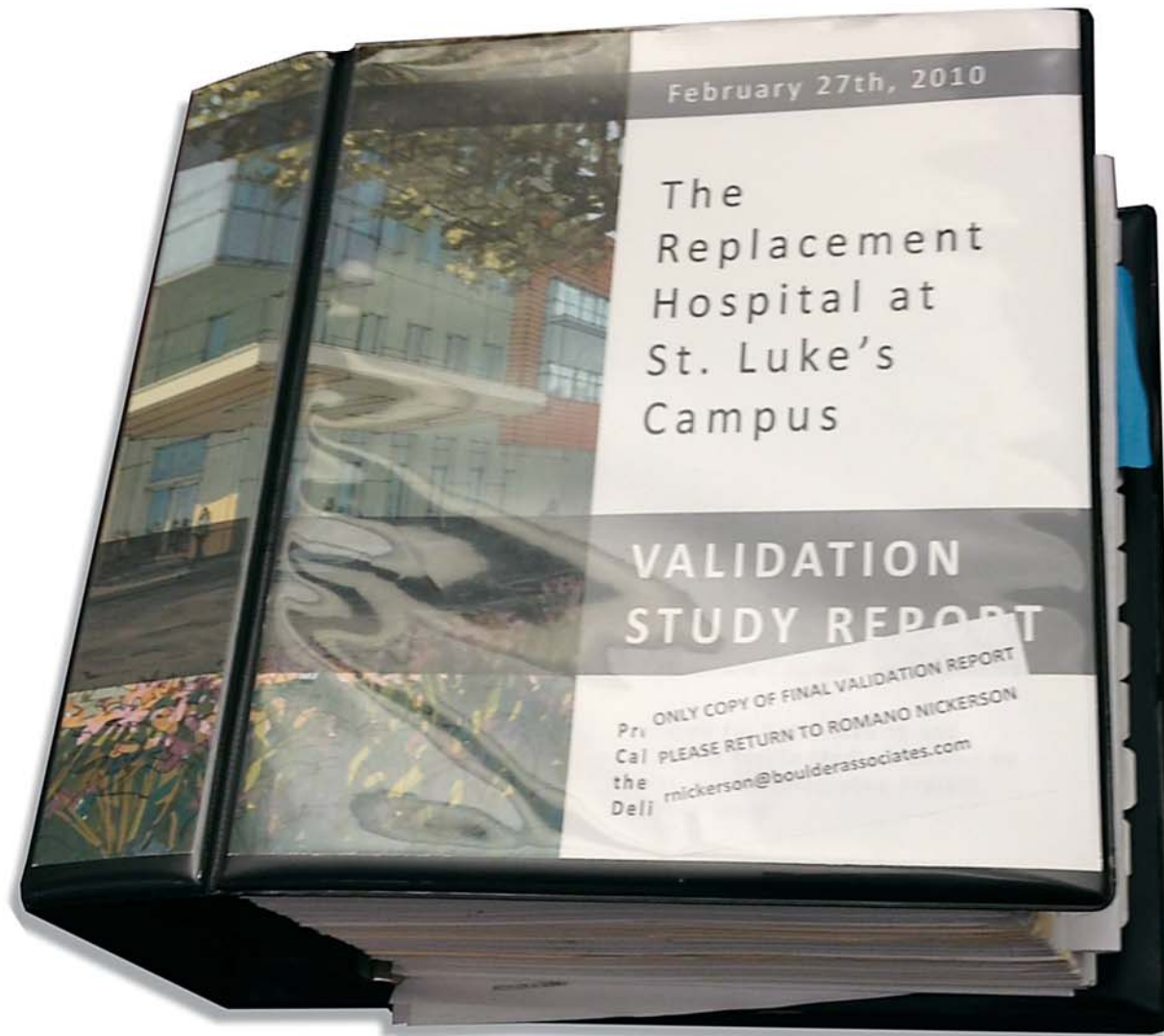


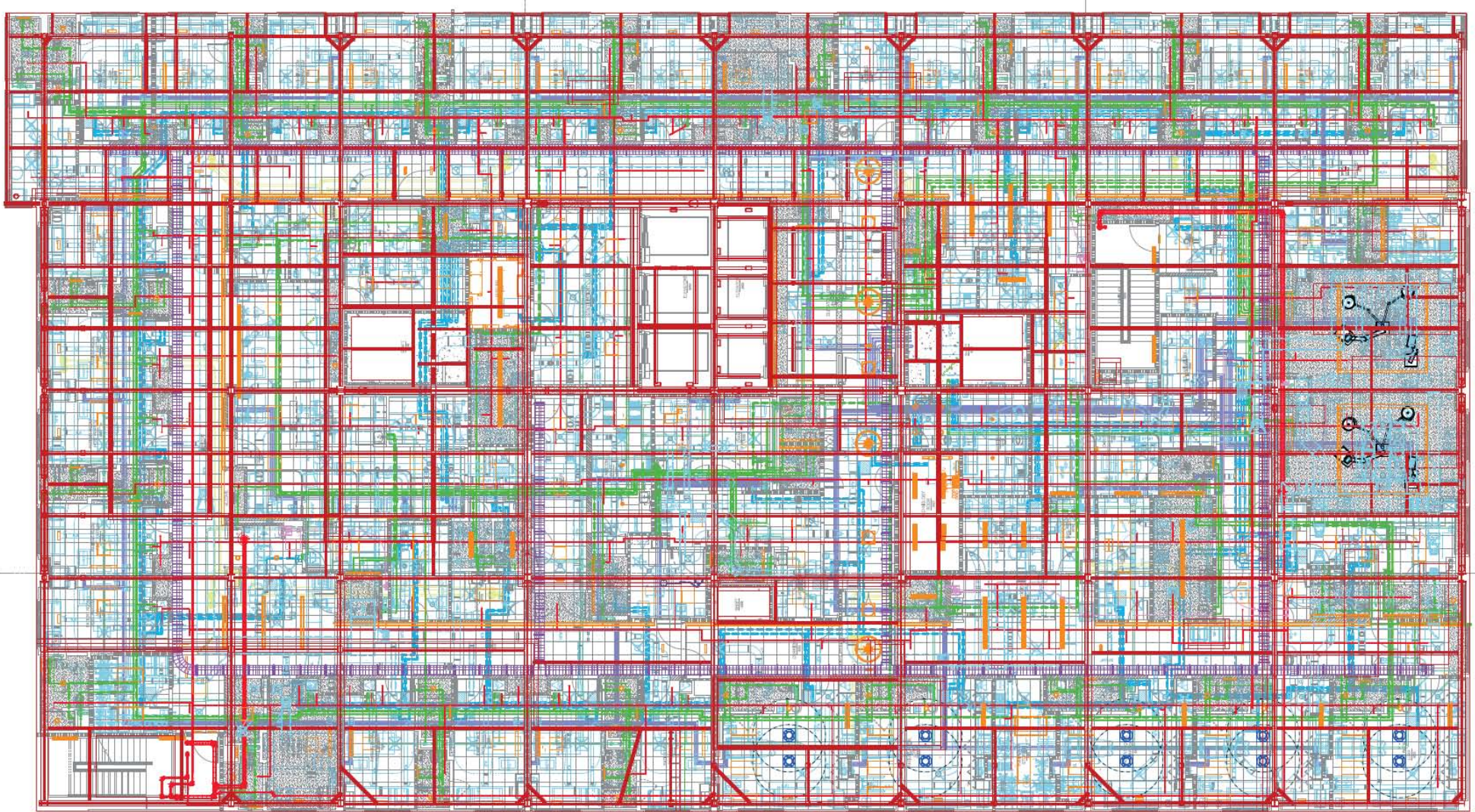




Sutter's 5 Big Ideas



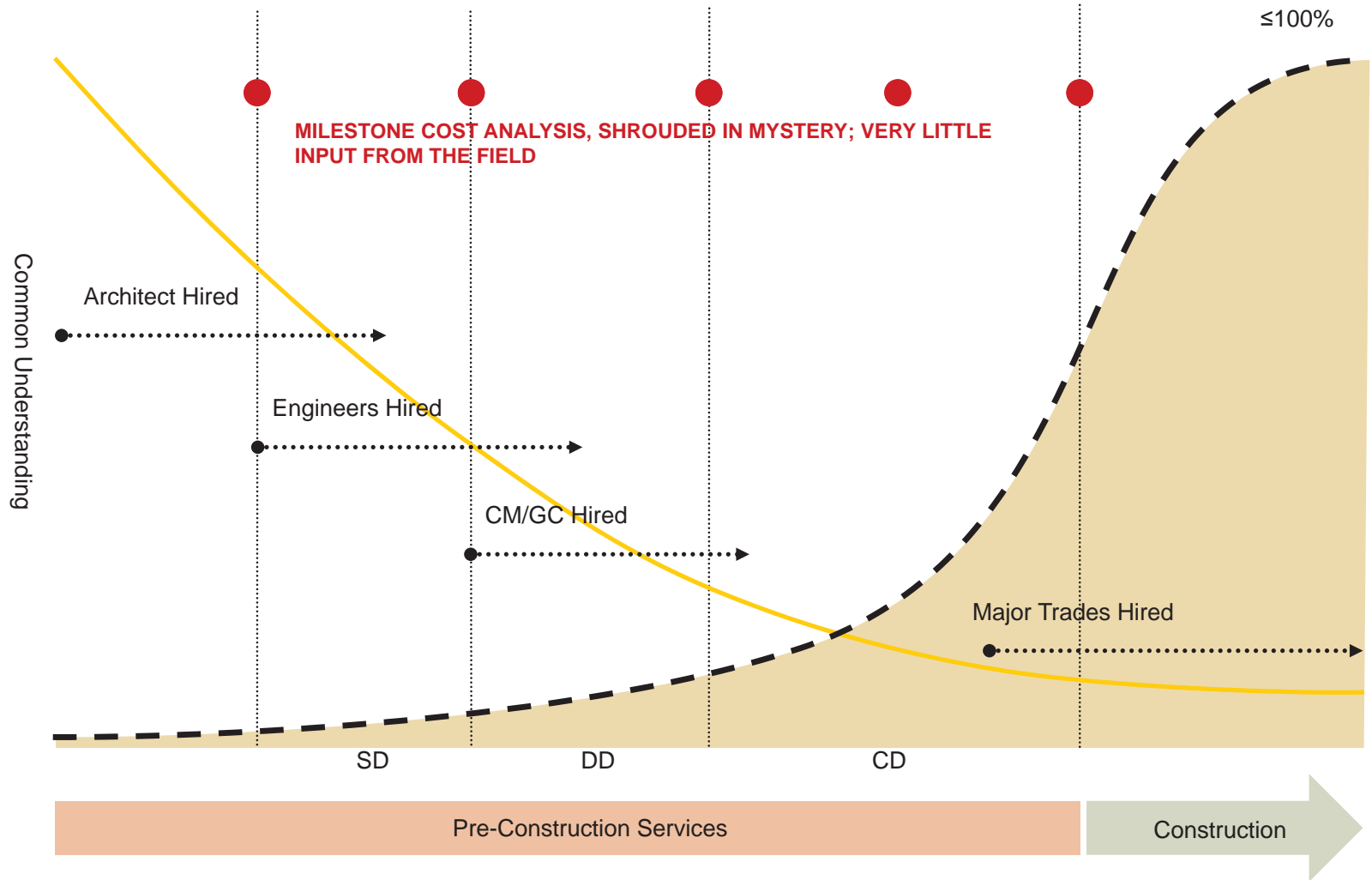




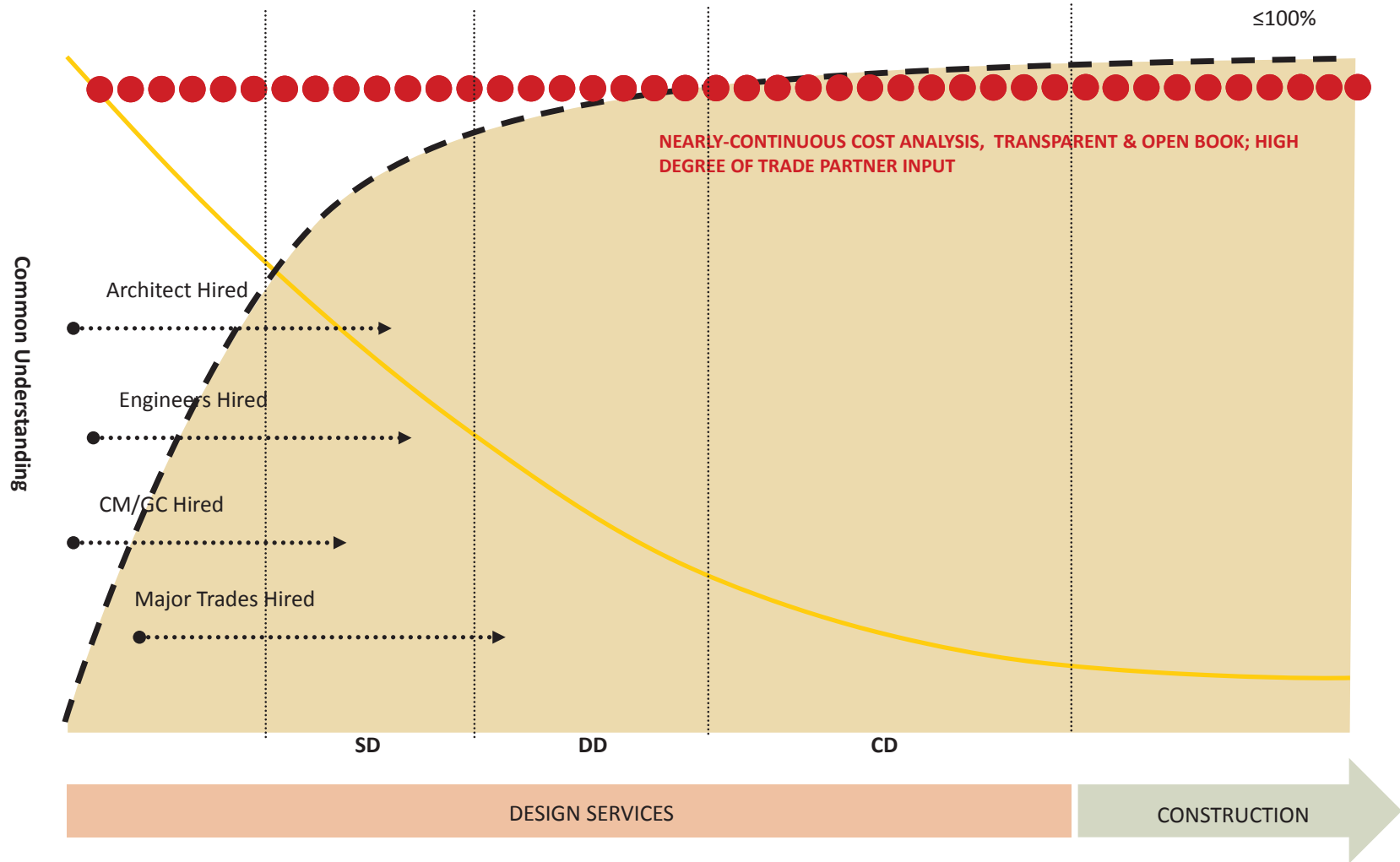
IPD answers: what if ...

- ... rather than design alone before coming together for reviews & decisions, we come together to decide *then* design to those decisions?
- ... rather than estimating based on a detailed design, we design based on a detailed estimate?
- ... rather than evaluate the constructability of a design, we design what is constructable?

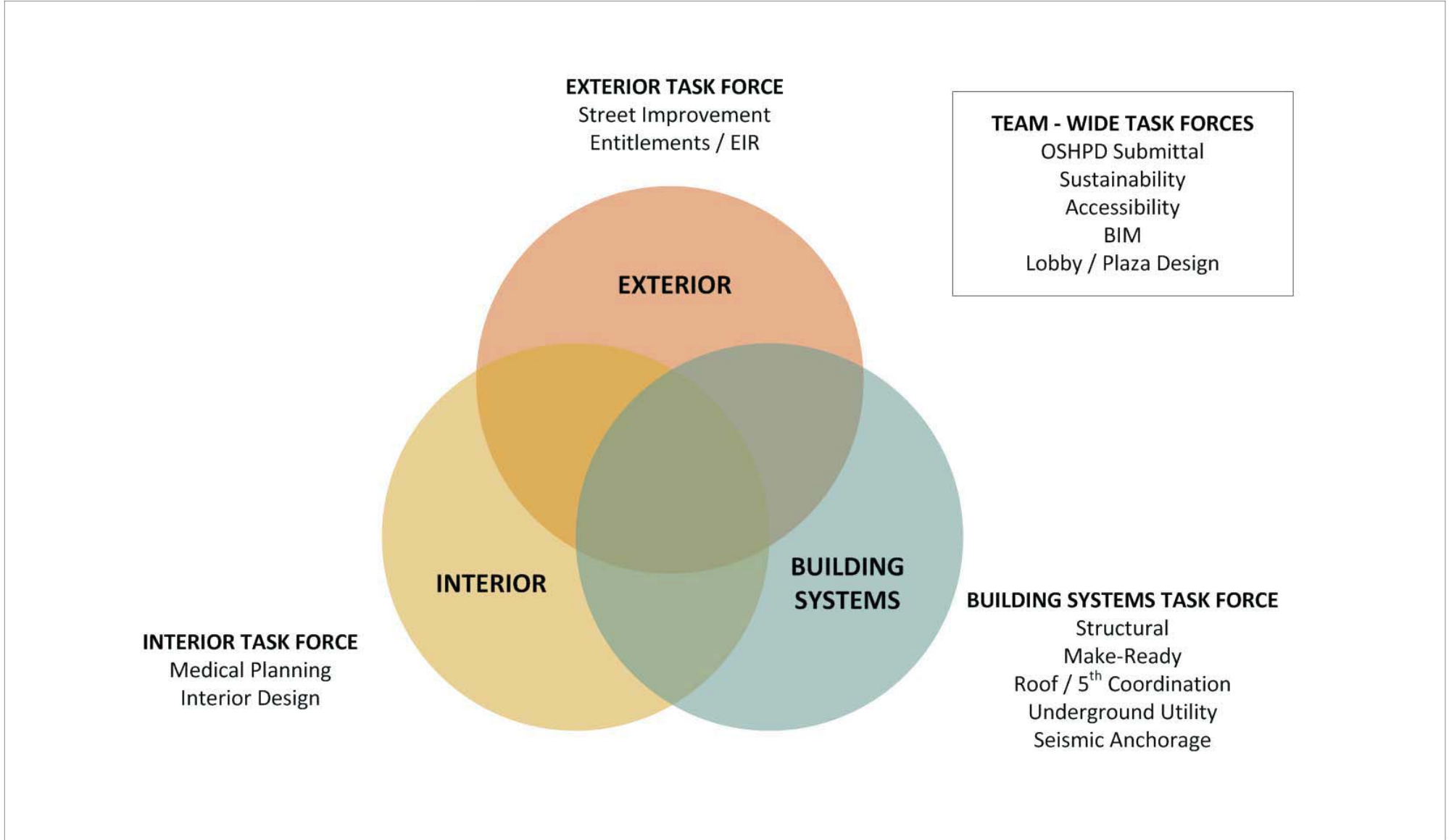
Source: Macomber, Howell, Barbiero



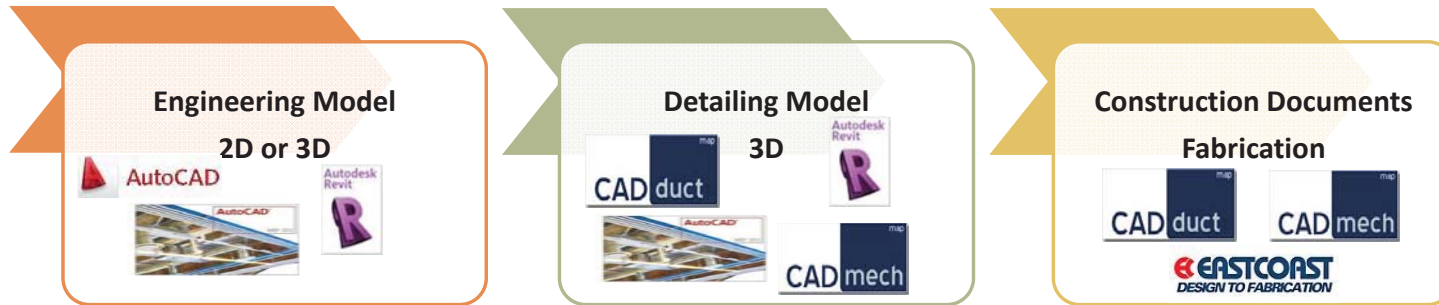
Adapted from work by Will Lichtig



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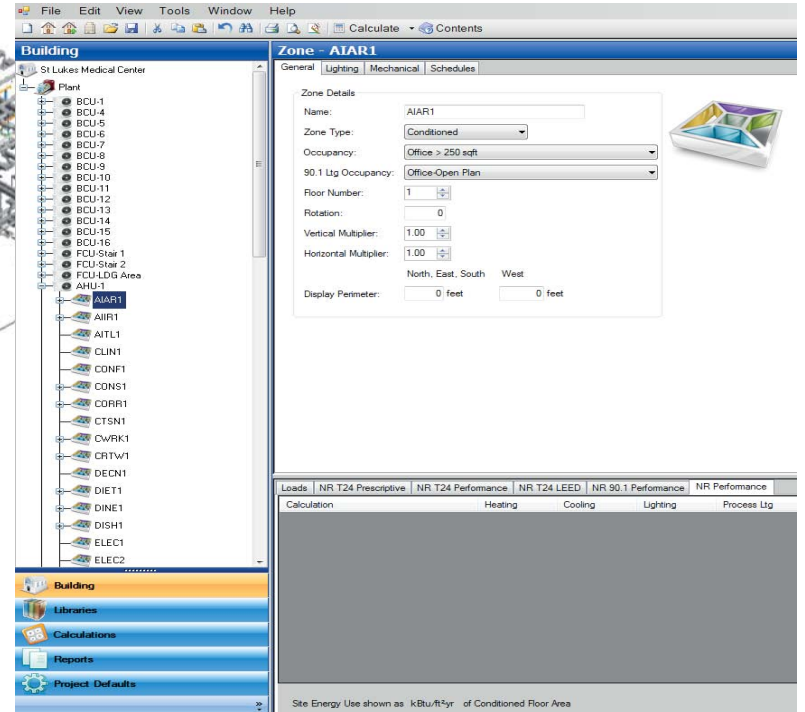


Standard Model Progression



St. Luke's Model Progression













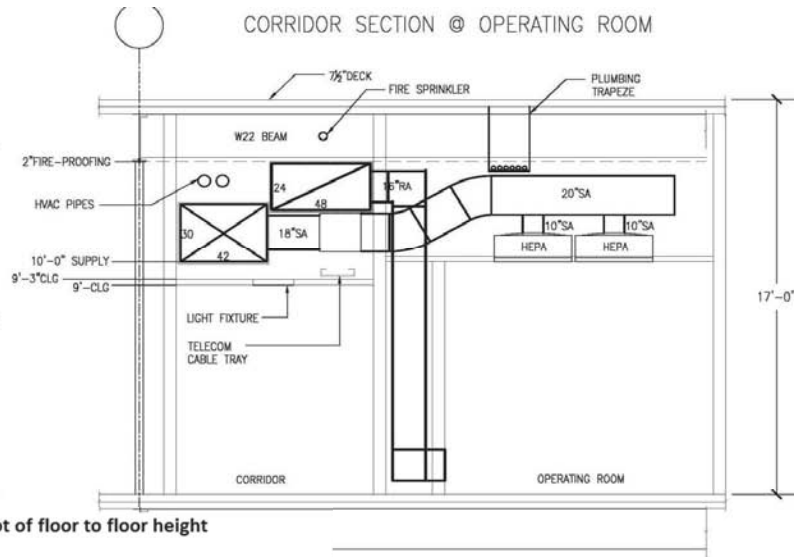
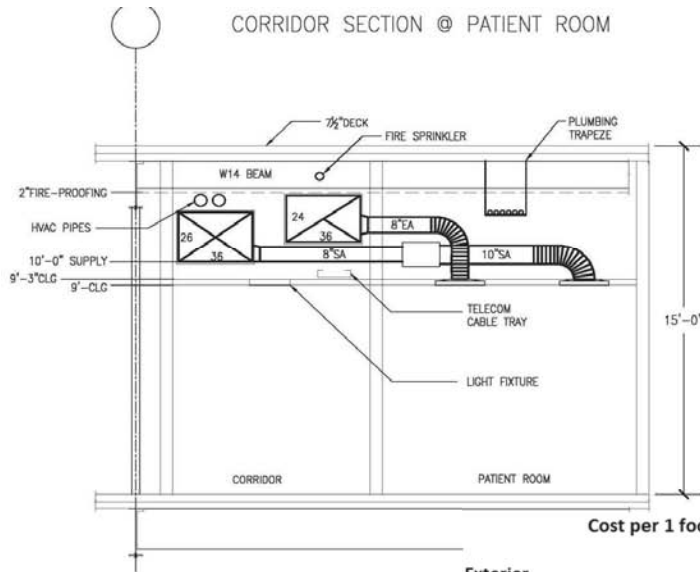












Cost per 1 foot of floor to floor height

Exterior

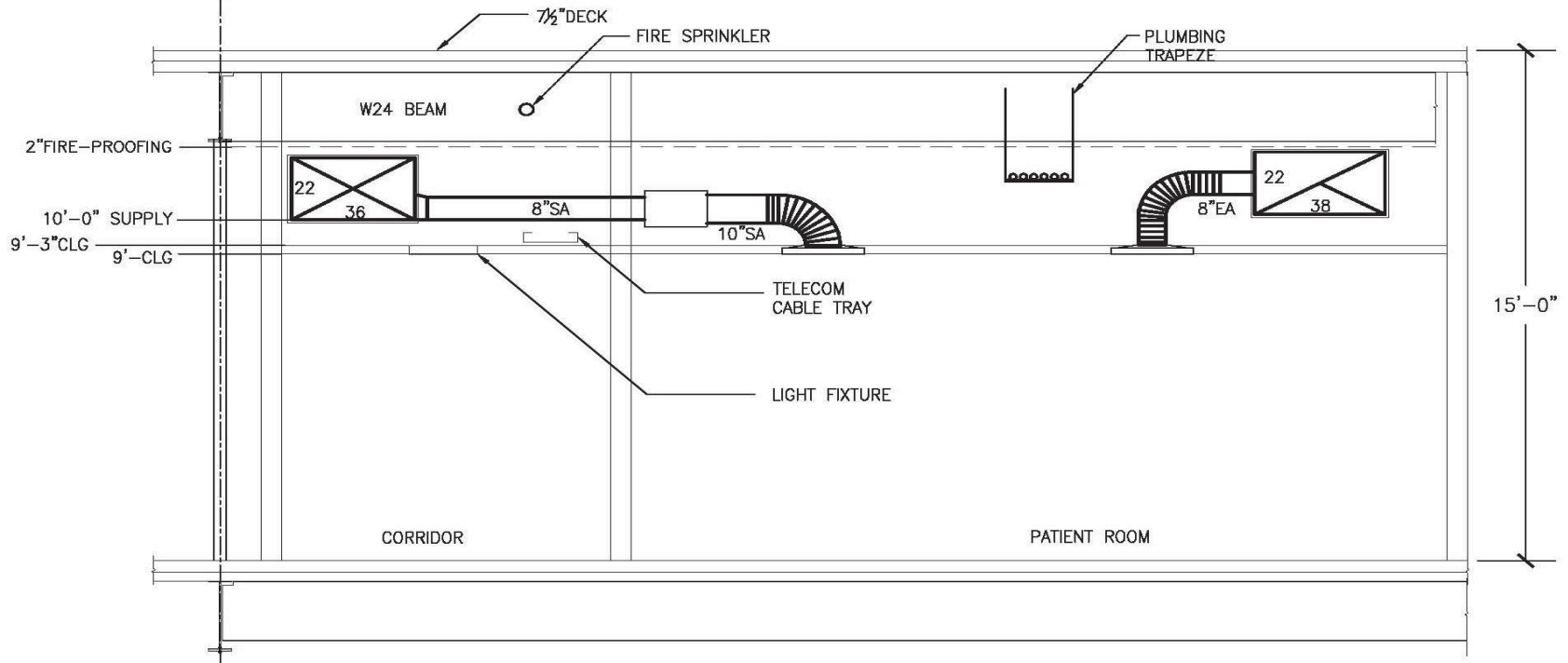
Level #	Cost per SF	Perimeter	Cost per level
One	75.00	725.00	54,375.00
Two	75.00	783.00	58,725.00
Three	75.00	804.00	60,300.00
Four	75.00	706.00	52,950.00
Five	75.00	706.00	52,950.00
Total			279,300.00

Interior

Level #	Cost per level	
One	13,559.00	
Two	21,436.00	
Three	24,418.00	
Four	23,182.00	
Five	20,211.00	
Total		102,806.00

Total Exterior + Interior 382,106.00
 For 1 foot reduction per floor (5')

CORRIDOR SECTION @ PATIENT ROOM
15'-0" FLOOR TO FLOOR



Program Alignment – Evaluation of Birthing and Bed Tower Configuration

BASELINE	<p>The team is seeking opportunities to align the program area of the building by test fitting the approved program within a smaller building envelope</p>	<p>The 4th Floor "Bump Out"</p>
	<ul style="list-style-type: none"> The team presented a pro forma, program, and estimate to Grant Davies in January 2010 without an aligned blocking or stacking diagram (Program BGSF = 162,058 SF). The team began the TVD process and quickly identified that there were discrepancies between the validation estimate, approved program, and shell building design. (Building BGSF = 172,416 SF, Δ = 10,358 SF) The team initiated a process to align building area with the approved program while maintaining the overall building design as previously put forward to the neighbors and to the planning department and working within the constraints of the building site. The team was also asked by Mark Farrar and Geoffrey Nelson to explore alternatives that reduce or eliminate the need for the bump out on the 4th floor as the current building geometry increases the impact of shadow and massing on adjacent neighbors. 	

ANALYSIS	<p>The team defined alternatives for evaluation: Alternative 1 (Narrow Tower with Bump Removed), Alternative 2 (Wide Tower with Bump Removed), and Alternative 3 (Narrow Tower with Bump)</p>		
	<ul style="list-style-type: none"> Mark Farrar believes the 4th floor bump represents a significant obstacle preventing neighborhood support of the project. The team studied more radical alternatives (4-story scheme, 6-story scheme, reduced program) before settling on alternatives that align with the "must" criteria identified for the project. 		
	<p>Must Criteria:</p> <ul style="list-style-type: none"> Align with the approved program Operationally functional Rooftop equipment with maintenance and service clearances must fit on the roof 5-story scheme as shown in EIR 	<p>Should Criteria:</p> <ul style="list-style-type: none"> Align building area with required program space Provide future flexibility where possible Maintain operational distribution of bed units Allow for flexibility in ongoing planning and design Remove the bump from 4th floor Desirable building massing on Cesar Chavez façade Reduce building impacts on adjacent neighbors 	
	<p>Alternative 1 This alternative removes the bump and narrows the tower by shifting grid line C by 6'-0" to the east</p> <p>Alt. 1 BGSF = 162,335 SF</p>	<p>Alternative 2 This alternative removes the bump only</p> <p>Alt. 2 BGSF = 165,011 SF</p>	<p>Alternative 3 This alternative narrows the tower by shifting grid C by 6'-0" to the east only</p> <p>Alt. 3 BGSF = 165,085 SF</p>

Author: Nickerson	Participants: STL IPD Team	Reviewed: Cluster Ldr _____ Value Mgr _____ Op Mgr _____
A3 No.: 00026	Doc Date: 06/29/10	File: STL-A3-0000-00026-Program Alignment – Evaluation of Birthing and Bed Tower Configuration.doc

ADVANTAGES	<p>The team identified the following advantages for each alternative:</p>		
	<p>Alternative 1</p> <ul style="list-style-type: none"> Somewhat better layout efficiency Better building geometry Less building mass Less structural detailing complexity Better building massing More support from neighbors <p>Total Importance = 317</p>	<p>Alternative 2</p> <ul style="list-style-type: none"> Better operational effectiveness Better program flexibility Better bed configuration Better planning flexibility Less building mass Less structural detailing complexity Better building massing More support from neighbors Better rooftop equipment layout <p>Total Importance = 726</p>	<p>Alternative 3</p> <ul style="list-style-type: none"> Better operational effectiveness Somewhat better layout efficiency Better bed configuration Better planning flexibility Better building geometry <p>Total Importance = 547</p>
	<p><i>The recommended alternative is shown in black. The paramount advantage is shown in bold. Duplicated advantages in other alternatives are shown in grey and in italics. Unique advantages in other alternatives are shown in black.</i></p>		

PROPOSAL	<p>The St. Luke's IPDT recommends selection of Alternative 2 (Wide Tower with Bump Removed) as supported by the attached CBA and recommends that Birthing move to the 5th floor</p>	
	<p>Total Importance of Advantages Relative to Initial Cost</p>	<p>If Alt 1 or Alt 2 is selected, the team recommends the stacking be revised so Birthing is located on the 5th floor. This places birthing at the end of the elevator run and enhances the security of the floor.</p> <p>Current Recommended</p>
	<p>The team recommends capturing a smaller amount of savings (\$2,278,000) by selecting Alternative 2 with a large increase in importance of advantages (409 more) versus Alternative 1.</p>	

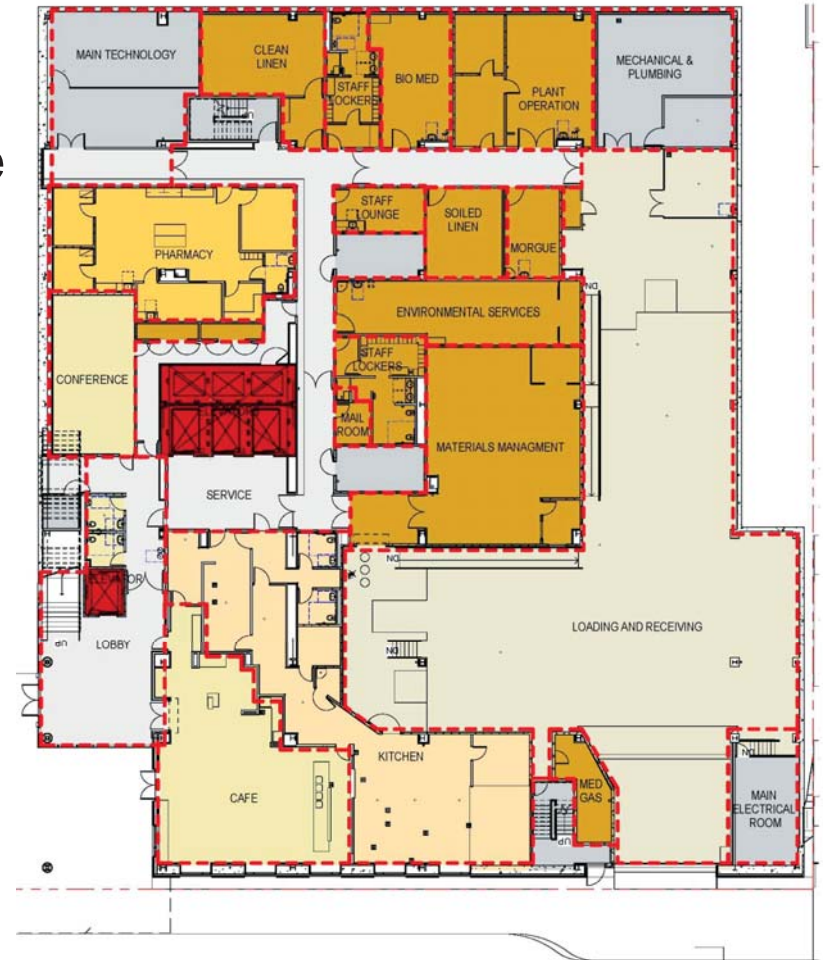
ACTION PLAN	<p>The path forward consists of :</p> <ul style="list-style-type: none"> Present A3 and CBA to Core Group and Senior Management and proceed per approved direction
	<ul style="list-style-type: none"> Pending approval, the Programming and Medical Planning cluster will declare their criteria design work complete, freeze the floor plans, and release mechanical and electrical engineering. This releases the structural constraint and allows work to continue toward the OSHPD Increment 2.2 submittal. Approval also will for the first time align program, estimate, pro forma, and building geometry as the basis for the ongoing TVD effort.

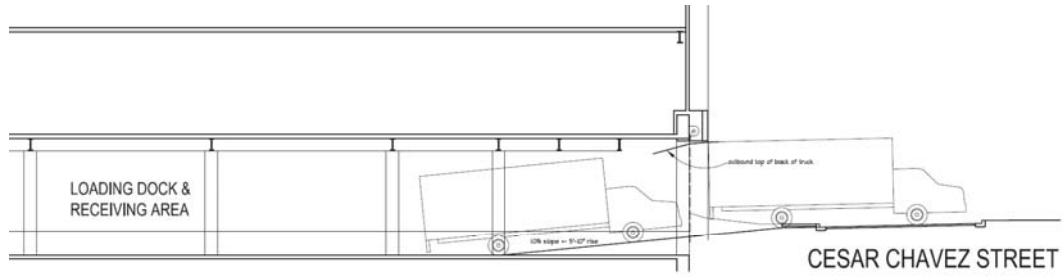
APPROVAL SIGNATURES (Please initial and date)

Kathleen Lassle _____	Romano Nickerson _____	David Long _____
Carlie Hernandez _____	Phil Clevenger _____	Paul Reiser _____
Tim Hernaiz _____	John Koga _____	Steve Peppier _____

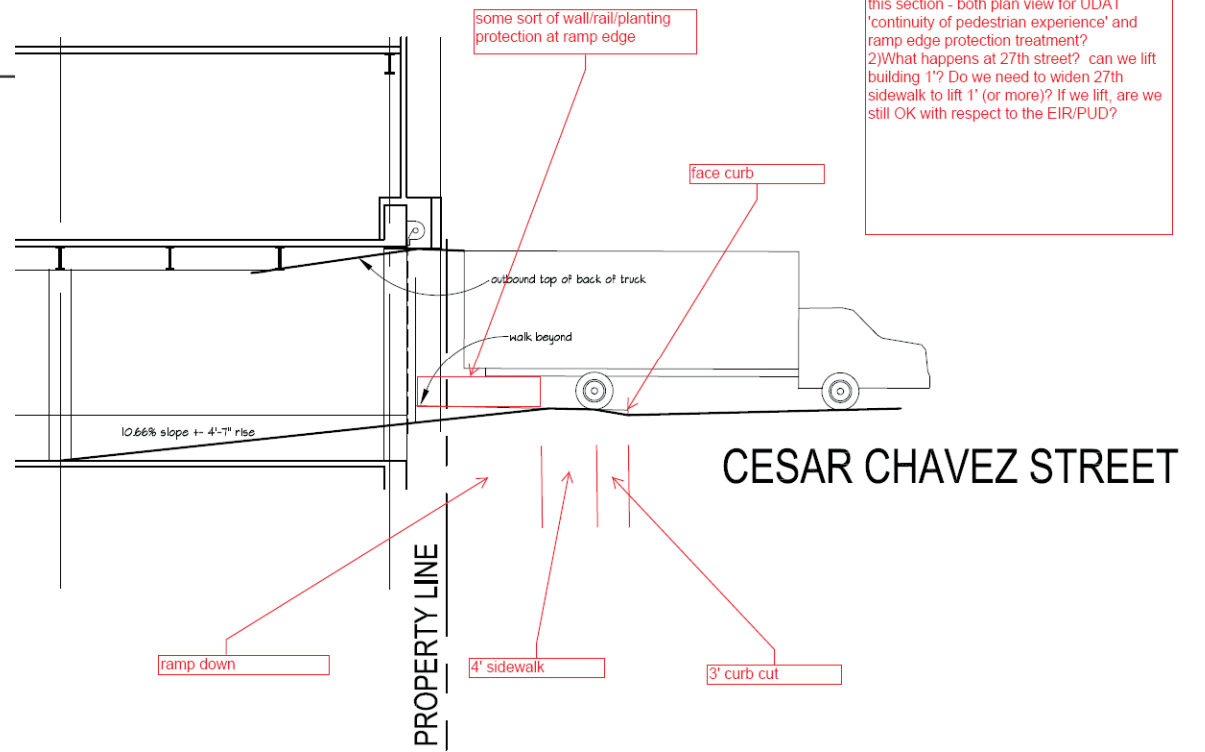
A problem surfaced. . .

- The team realized that the streetscape package (civil, landscape) did not include the ramp at the loading dock entry
- Streetscape package was set to be submitted later that day
- Submittal was put on a hold and a disposable task force was formed
- The news got worse the deeper we dug!
- Ultimately, three initial areas of concern were discovered:
 1. Grades at the doors off of the café
 2. Loading dock ramp / entry
 3. Grades at the ED walk-up entry





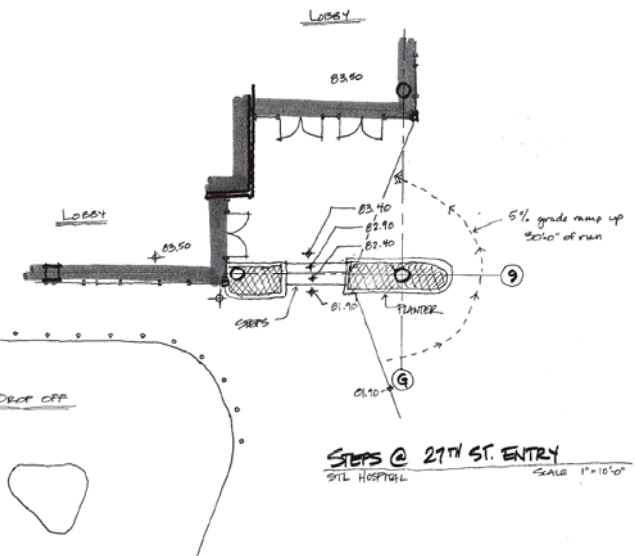
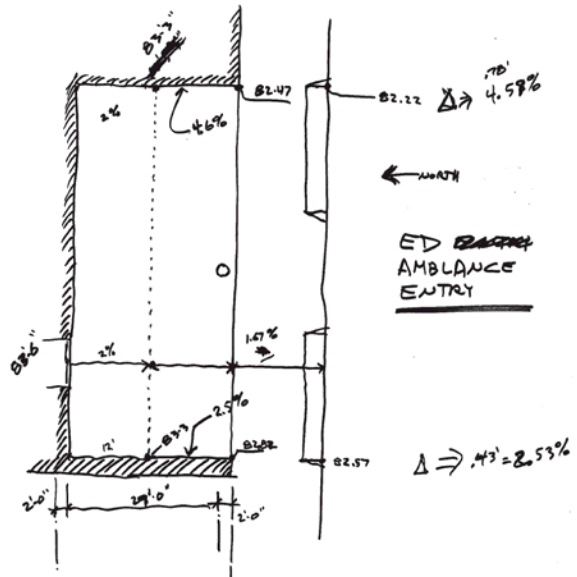
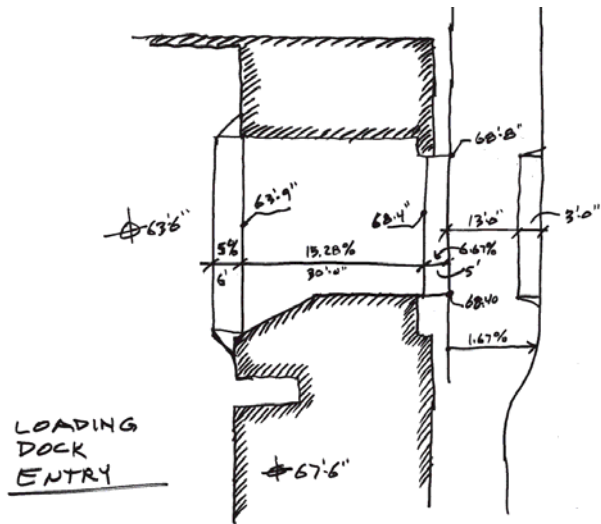
LOADING DOCK SECTION
SCALE: 1/8"=1'-0"



SOME QUESTIONS:
 1)What is going on with landscape relative to this section - both plan view for UDAT 'continuity of pedestrian experience' and ramp edge protection treatment?
 2)What happens at 27th street? can we lift building 1'? Do we need to widen 27th sidewalk to lift 1' (or more)? If we lift, are we still OK with respect to the EIR/PUD?

A deeper look. . .

- Team studied the problem to understand the issue
- Found an additional point of concern at the ambulance entry
- The owner's entitlements group challenged the team to keep the ramp within the property line, further stressing the solution
- Work began in a counter clockwise manner around the building
- Plan was formulated
 1. Deal with the café entry
 2. Fix the loading dock ramp
 3. Accommodate ambulance drop off
 4. Resolve grades at the ED walk-in entry
- There was logic in solving things in this order due to analysis of the various constraints on the areas of work



A solution is reached. . .

- Plenum congestion became the constraint governing the site grading at both levels.
- Mechanical detailers confirmed that the 1st floor plenum could be reduced
- The plenum was compressed and the 1st floor raised to accommodate the grades at the café entrance
- Loading dock ramp was pulled back, floor-to-floor height was modified, grades were modified in the sidewalk and curb height, and structure was modified to make the ramp fit
- Slope in the ambulance bay was modified and grades in street and sidewalk were altered to maintain egress path of travel
- Street grading was altered, grading in the drop-off area was changed, and a curb was added to meet FFE at the ED walk-in entry

