

Lean Construction and Collaboration from the Owner's Perspective

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THE ABC'S OF LEAN: TRANSFORMATION THROUGH ACTIONS, BEST PRACTICES AND COACHING

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Our Presentation Team

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Problem Statement

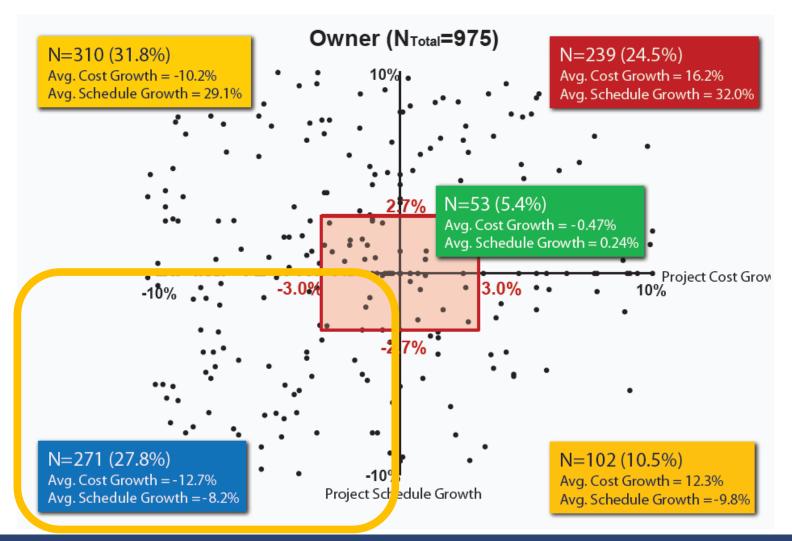
- 1. Need for more capital projects vs. no capital dollars to allocate to those projects.
- 2. Apprehension by owner's that want to collaborate but do not want to be a participant during the construction process.
- 3. Creation of a project culture can be difficult on smaller projects with shorter durations.

Project Delivery - The Owner's Perspective



Owner's Perspective – What's Broken

Demand for Construction Projects (Capital) Exceeds Supply (of Capital)



2012: CII's Performance Assessment Study of 957 projects. Average size \$65MM

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Owner's Perspective – Goals



MORE PROJECTS, NOT ENOUGH CAPITAL



INCREASE ACCESSIBLITY & AFFORDABILITY



LEVERAGE OUR CAPITAL

Owner's Perspective – Obstacles



ALLOWING FLEXIBILITY & OWNERSHIP OF THE FINAL DESIGN



ALLOWING FOR CONTINOUS IMPROVEMENTS

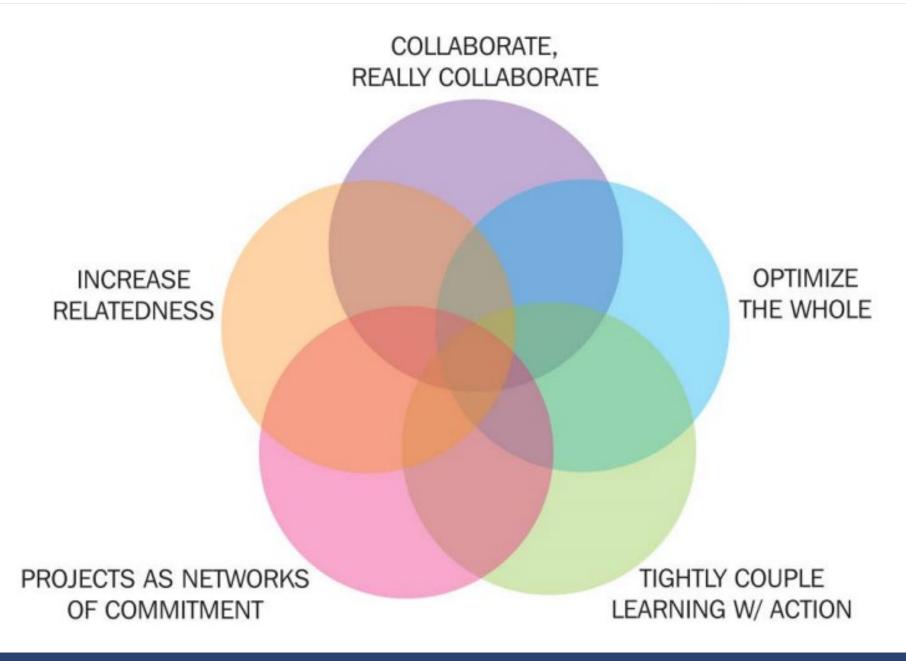


STANDARDS AND POLITICS



Owner's Perspective – Lean Intent "The 5 Big Ideas"

Work and learn as a single team in the interests of overall project success



Culture Driven by the Owner



Validation

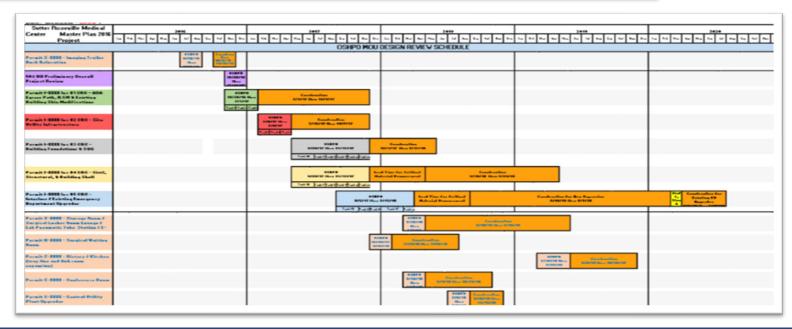
Can We Deliver the **Proposed Program** and **Quality** within the **Schedule** and **Budget** Supported by the **Project's Business Case**?



Project Master Phase Planning

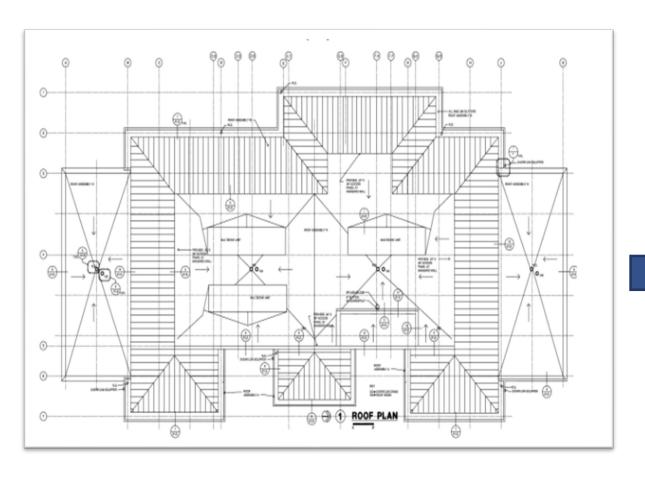




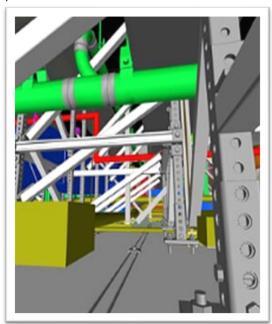


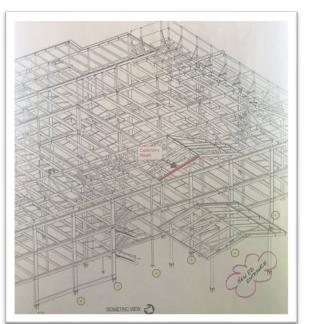
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Design for Fabrication not for Intent











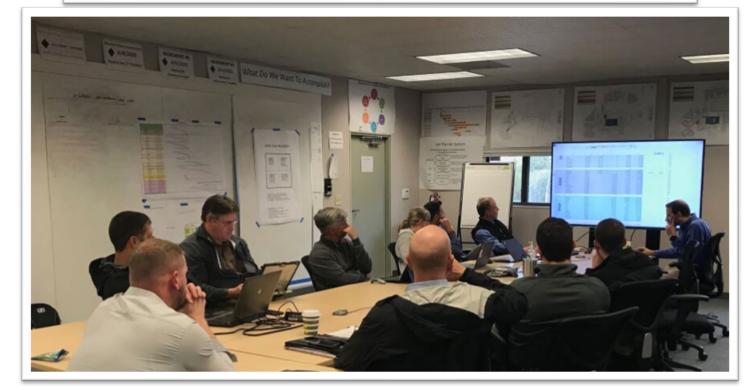
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Risk Assessment and Tracking





| / | SIEN FLAN 2010 | | | | | | | | | | Sut | te | r Rosey | ville Medical Cente | r Burnary 00 |
|-----------------------------------|--|----------------|-----------|-------------|--------------|-----------|------------|-------------|-----------------------------|----|----------|---------------------------|------------------|-------------------------|--|
| ISK / OPPORTUNITY LOG ay 22, 2017 | | | | | | | | | | We | Plus You | | me medical cente | RUDOLPH SLETTEN | |
| | | | | | | | | | | | ••• | | us rou | | contact and delication contactions |
| Date Item | Description v | Total Order of | | Percent | Risk / Oppor | | ortunities | Contingency | Cost / Savings in EMP | | | Pending Savings / Cost | | | |
| | | | | | Construction | | | | | | | | | | |
| | | | | Likelihoc * | - | | Design Co: | (Owner/IFC | (Yes/N - | - | (\$) | | to EMP | Status | Comments |
| 3 03/02/17 | Provide porcelain pavers at courtyard in lieu of concrete pavers | \$ | 24,246 | 100% | \$ | 24,246 | \$2,500 | Owner | No | \$ | 26,746 | \$ | | Pending Change Order | 5/19/17: HGA provided A/E cost information - needs justification - scope only changes pavers to porcelain |
| 4 03/02/17 | Buyout exterior wall demo w/PCI - Inc. 1 | \$ | (161,000) | 100% | \$ | (161,000) | | IFOA | No | \$ | - | \$ | (161,000) | Closed | |
| 5 03/08/17 | Laminated glass in lieu of 3M film | \$ | (11,740) | 100% | \$ | (11,740) | | IFOA | No | \$ | š | \$ | (11,740) | Closed | |
| 6 03/08/17 | Single integral blind at opening vs mulitiple | \$ | (52,135) | 100% | \$ | (52,135) | | IFOA | No | \$ | | \$ | (52,135) | Closed | 3/17/17: Sutter approved concept; HGA finalize condition at demising wall |
| 03/14/17 | Stainless steel rails at staff stair in lieu of painted steel | \$ | | 100% | \$ | - | | Owner | No | \$ | | \$ | 34 | Closed | 4/12/15: Per Sutter at OAC meeting, painted rails approved |
| 8 03/14/17 | Enhanced floor finishes at north stair | \$ | | | \$ | - | | Owner | No | \$ | | \$ | | Pending Owner selection | HGA to present options to Sutter for review |
| 03/16/17 | Buyout structural steel / stairs | \$ | (545,625) | 100% | \$ | (545,625) | | IFOA | No | \$ | - | \$ | (545,625) | Closed | |
| 03/23/17 | Storefront - provide "champagne" anodized finish in lieu clear anodized | \$ | 90,000 | 0% | \$ | | | IFOA | No | \$ | | \$ | | Closed | Per HGA, clear anodized finish is acceptable |
| 1 03/23/17 | Enhanced rails at north stair | \$ | 25,000 | 75% | \$ | 18,750 | | IFOA | No | \$ | _ | \$ | 18,750 | Need ROM pricing | 4/12/17: Per Sutter at OAC meeting; decorative rails only at exterior stringer 8 landings |
| 03/23/17 | Provide fuel at additional fuel tanks (reference RO 97) | \$ | 200,000 | 50% | \$ | 100,000 | | Owner | No | \$ | 100,000 | \$ | - | 3/23/17: Sutter WAG | 3/23/17: Only required if RO 97 is accepted |
| 03/27/17 | Pneumatic tube buyout | \$ | (167,577) | 100% | \$ | (167,577) | | IFOA | No | \$ | - | \$ | (167,577) | Closed | |
| 03/29/17 | Entrance canopy / drop-off phasing | \$ | 200,000 | 75% | \$ | 150,000 | \$3,500 | IFOA | No | \$ | | \$ | 153,500 | Need ROM pricing | 5/19/17: ROM pricing pending final solution for drop-off; HGA provided ROM pricing (reduced for CTD already in HGA |
| 04/06/17 | Additional exterior sound mitigation measures - laminated glass | s | 31,564 | 100% | s | 31,564 | | Owner | | s | 31,564 | S | | Pending Change Order | 4/19/17: Cost proposal provided; 4/19/17: Per Sutter (Chris), change is authorized |
| 6 04/06/17 | CM/GC Liability insurance thru effective date | e | 22 029 | 100% | | 22 029 | | Oumer | No | | 22 029 | Ť | | Panding Change Order | A/E/17: CI thr.: 2/2E/17 |



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Culture







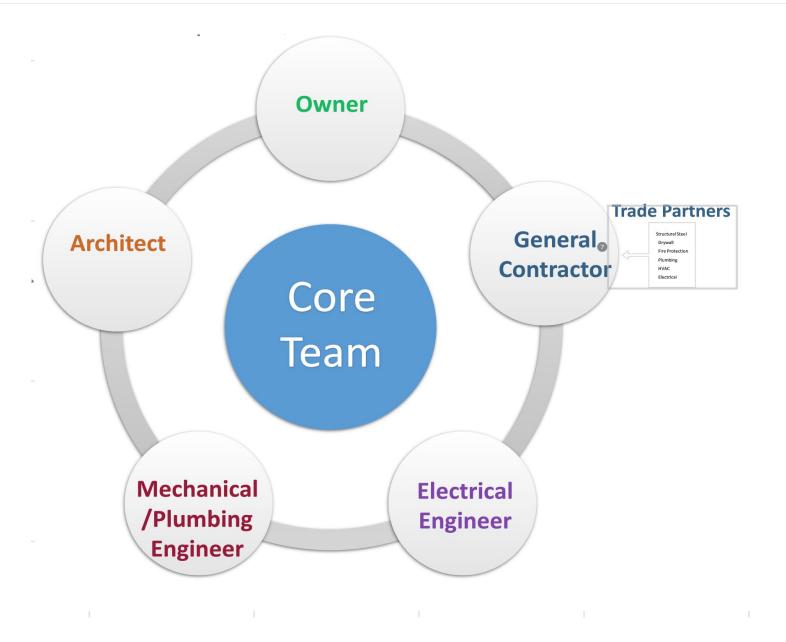


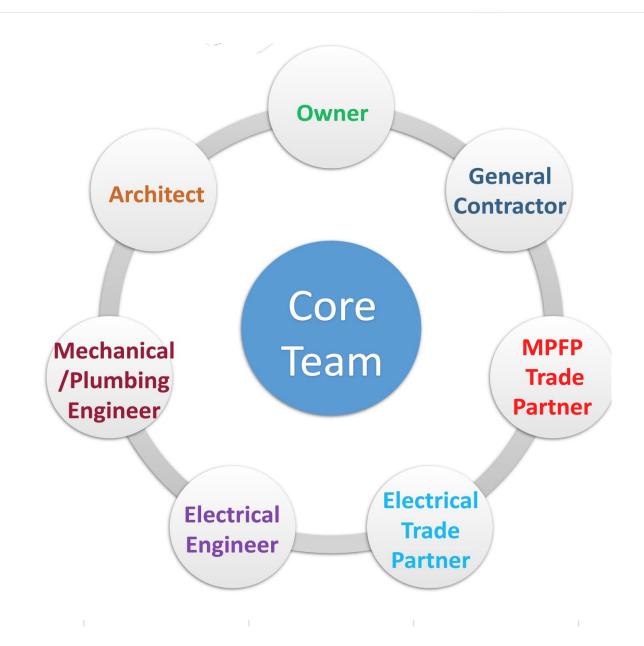
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Results Owner's Want



Integrated Form of Agreement





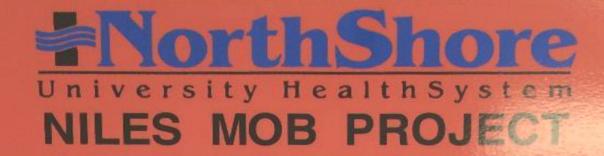
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Dashboards



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Transparency



Project Goals and Performance Indicators

- 1. Achieve 85% Planned Percent Complete
- 2. 50% of all RFI's shall be submitted with proposed solutions
- 3. Average RFI response time shall be (3) working days
- 4. Average submittal response time shall be (5) working days
- 5. Achieve (0) lost time accidents

Transparency

Project Conditions of Satisfaction (Conditions ranked by Prioirity) 1. Complete project on/before December 20, 2016 2. Complete the EMP with shared savings Owner conditions of operational efficiency, and sustainability are met 4. Each team member considers this a successful project and finishes with a profit ::: Primera IFS Integrated Facilities Solutions, Inc. F.E. MORAN FIRE PROTECTION

Results



Cost Certainty



Innovation



Schedule Certainty



Enjoyable Process



Standardization



Profit for All

Conclusion



The Realization Equation

Performance is terrible

+

The Owner is paying close attention

+

We might not make any money

Everything changes*

The Asterisk Slide

- If the Owner is deeply involved
- If the Owner is a committed partner
- If the Owner is open & transparent
- If the Owner leads the change





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. Highest rated presenters will be recognized.

BULLERER

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Thank you for attending this presentation. Enjoy the rest of the 22nd Annual LCI Congress!

