



# Lutheran Hospital Emergency Department

Cleveland Clinic  
Cleveland, OH

By Sue Klawans | Based on an interview with Ron Lawson and Doug Lippus, Cleveland Clinic

## PROJECT GOALS:

Patient/Physician  
/Staff/Team  
Satisfaction

Budget/Schedule  
Management

Team  
Engagement  
Throughout

Make Decisions  
That Will Benefit  
The Entire Hospital

## INSIDE:

- project information
- successes
- lessons learned
- insights
- interview excerpts



## PROJECT INFORMATION

PROGRAM	TEAM/BUDGET/SCHEDULE	CHALLENGES
<ul style="list-style-type: none"> <li>• Square footage 29,000 sq. ft.</li> <li>• Increase beds from 14 to 21.</li> <li>• Increase visits from 24,000 to 30,000 patients a year.</li> </ul>	<ul style="list-style-type: none"> <li>• Owner: The Cleveland Clinic</li> <li>• Architect: Bostwick Design Partnership</li> <li>• Construction Manager: The Krill Co., Inc.</li> <li>• Project Budget: \$18M.</li> <li>• Schedule: 5 Months Design and 8 Phases of Construction Over 22 Months</li> </ul>	<ul style="list-style-type: none"> <li>• Maintaining patient satisfaction and safety.</li> <li>• Keep Emergency Department operational.</li> <li>• Making decisions to execute the project, being mindful of the ultimate impact to the cost of health care for patients.</li> <li>• Working with a facility built in 1957.</li> </ul>

## SUCCESSSES

- ✓ A project team which, from day one, embodied the “Team First” concept from the top down.
- ✓ Increased patient satisfaction rate during construction.
- ✓ Interactive scheduling allowed the entire team to be innovative, resulting in an 8 week schedule reduction or 3% of schedule, saving \$72,000 in construction costs. Early turnover of the space allows the Hospital serve more patients and earn revenue in addition to fiscal plan.
- ✓ Collaborative dialogue and consideration for construction alternatives allowed the team to reduce the project budget. One example was to pre-fabricate exam room headwalls, saving 578 man hours.
- ✓ Implemented and executed an invasive existing condition analysis, which resulted in changes net zero impact to project budget and schedule due to unforeseen conditions.
- ✓ Proactive confirmation of user needs resulted in deduct change orders to the project.
- ✓ Successful utilization of BIM as a collaboration tool allowed proactive multidiscipline coordination, which enabled conflicts to be worked out virtually prior to impacting construction budget and schedule. Construction contingency dollars used for rework are less than \$10,000 or 0.1% of construction contingency.
- ✓ No recordable safety incidents in 51,254 man hours worked.

## LESSONS LEARNED

DOs		DON'Ts
<ul style="list-style-type: none"> <li>✓ The Owner must lead by collaborative example.</li> <li>✓ Creating a project specific mission and goals allows the team to create a common definition of a successful project.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Constantly reiterate what matters most: project specific goals.</li> <li>✓ Take time to develop a trusting relationship among team members.</li> <li>✓ Set up multidiscipline teams to track progress on goals and resolve specific issues.</li> </ul>	<ul style="list-style-type: none"> <li>✗ Do not tolerate incomplete or nontransparent thoughts and information.</li> <li>✗ Do not allow one-sided solutions.</li> <li>✗ Do not focus on just one goal.</li> <li>✗ Do not let non-performing team members stay on the project.</li> </ul>

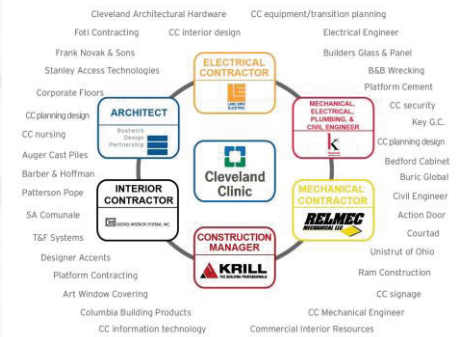
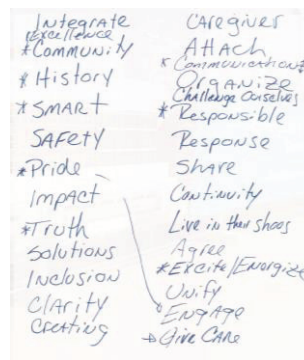
# Emergency Department Renovation and Expansion Completion in 2015 - Open During Construction

Challenge ourselves to proudly build upon history to give care to our community.

## INSIGHTS INTO:

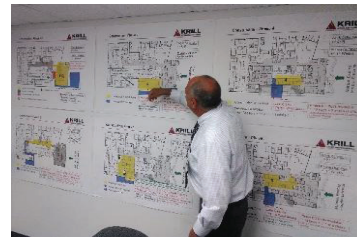
### CREATING A TRUE TEAM

- Owner is to inspire and lead the team.
- Provide a third party facilitator to build the team through a Team Development process creating project mission, goals, strategies and results.
- Select the team based on qualifications, personality, and price.
- Orientate all team members to mission and goals.
- Delegate to the right person, regardless of discipline.
- Keep all team members actively engaged from design through substantial completion.
- Implement executive rounding, similar to medical rounding, integrating job site walks to gage progress.
- Monitor progress and make adjustments to project culture as needed.
- Provide recognition and celebrate team successes.



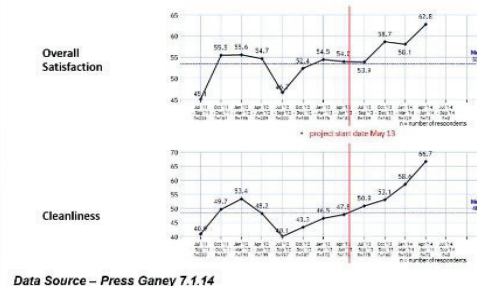
### SUCCESSFULLY RENOVATING A 1957 BUILDING IN 2014 WITHIN THE ORIGINAL BUDGET

- Execute invasive existing conditions investigation to understand hidden conditions.
- Include constructability input during design to create informed budgets.
- Collectively generate schedule including Owner, Architect, Engineer, CM, and trades.
- Create a partnership with Hospital Facility Staff to truly understand the building capacity and limitations.
- Demand an active presence of A/E during construction, allowing the trades to communicate directly to A/E.
- Allow for evolution of constructability plan – encourage prefabrication.



### IMPROVING PATIENT SATISFACTION SCORES DURING A 2 YEAR PHASED RENOVATION PROJECT

- Require all team members to watch Cleveland Clinic Empathy Video to put the purpose of the project in context of those that experience the space for clinical purposes.
- Send out weekly newsletters to hospital staff, post newsletters in elevators and prominent locations, highlighting planned construction activity and noise level.
- Create mock-up space for training on new equipment and flow.
- Inform Hospital standard daily clinical safety meetings with critical updates on construction.



**RON LAWSON AND DOUG LIPPUS, THE CLEVELAND CLINIC****Q: Do you think collaboration can add value to a project?**

Yes. In healthcare, it is about the **patients**. We are **caregivers**. People are our business. When the medical staff collaborates, better **results are achieved** for the patients. Our Owner Controlled Team Project Delivery method mirrors the healthcare approach provided at Cleveland Clinic. Team members collaborate together to build spaces that serve patients.

**Q: How did you get started developing your collaborative approach?**

We started implanting OCTPD a decade ago. We have completed \$1.5 Billion in work successfully using this approach. Every project, since our first, has taken another step to **improve outcomes by enhancing collaboration**. Our results included: improved schedules, budget reliability, reduced change orders, and improved quality and safety.

**Q: How does OCTPD work?**

OCTPD is successful only if everyone works as a **team** committed to the success of the project. Creating a sense of teamwork starts with team selection. Together, we created a project specific **mission, goals and metrics**. We set time aside to discuss the importance of alignment to ensure project goals were met. But that was not enough, we needed to act as a team, not just talk about being a team. Two additional fundamental concepts of OCTD are multi-discipline task teams working together to solve specific problem and proactive coordination.

**Q: What is the key to getting this level of commitment to collaboration?**

The key is **transparency**, starting with the Owner. We share a common desire for the **project** and the **budget**. We demanded the teams do the same. Transparency of thoughts enhanced the **engagement** to the project, resulting in **informed** decision making. Stepping back and reflecting on this project, we know we had the right people engaged to make the right **decisions**. We built trusting relationships that allowed us to share our thoughts and positions freely.

**Q: Compared to projects done before the OCTPD framework was implemented, what difference do you see?**

The difference is simple, better **people**, better **process**, and better **outcomes**.

**Q: How did you produce the schedule savings and reliability?**

The schedule was a living **process**, which began during design when the CM and key contractors created a partnership with the design team. A **team based approach** to existing conditions review and constructability input on key design elements, including the canopy, allowed the schedule to be more **accurate** prior to the start of construction. The electrical contractor suggested the addition of an enabling phase, allowing them to run their wires to make room for others. The **Owner** played a key role in the phasing of the project as well. They agreed to shuffle **workflow**, allowing the contractors access to certain spaces sooner, **improving the flow of construction**. These are just two examples of many that resulted in a **team who understood the mission** of the project.

**Q: What has been most remarkable to you about the benefits of a truly collaborative approach?**

We received innovative **initiatives** from all members of the team. Trade contractors opened up and **contributed** to design intent. Designers and engineers **learned** from contractors. Everyone has **improved** their process, and not just on this project. We heard from many companies that their people only want to work under the **OCTPD process**.

“Better people,  
better process,  
better outcomes”

Doug Lippus  
Cleveland Clinic