Innovative Construction Contracting

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What Happens the Day After the Open House and the Honeymoon is Over

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Who am I?

• **Current**
  - Consultant/Interim Nurse Leader, Philips Blue Jay Consulting
  - Emergency Nurse, Paramedic, nationally recognized presenter
  - Long history in Emergency Services Management
  - Leadership team coach
  - Process redesign expert

• **But….I’m not**
  - An architect
  - Builder
  - Facilities expert

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Looks so cool!

I can’t wait!

Awesome!

When does it open?
So, opening day is here... What we expect!
So, the day is here....What we get (WTH!!!)

There are not enough rooms!

I don’t have what I need in here!

Did they totally forget EMS?
So what happened?

• Are clinicians really from Mars?

• Are architects, designers, builders and facilities pros really from Venus?
So what happened?

• Time passes.....

• Often seen new emergency department scenario:
  • Current target capacity 20,000
  • Current volume 25,000
  • New department target capacity 28,000
  • Current growth rate 10%
  • Build time 24 months
  • Opening day 30,250
So what happened?

• Time passes.....

• Practice changes
  • New EBP
  • New regulations
  • New clinicians
  • New generations
  • New patient expectations

• If you want to know how we practiced medicine 5 years ago, read a textbook.
• If you want to know how we practiced medicine 2 years ago, read a journal.
• If you want to know how we practice medicine now, go to a conference.
• If you want to know how we will practice medicine in the future, listen in the hallways and use FOAM.

➢ from International EM Education Efforts & E-Learning by Joe Lex 2012
So what happened?

- Time passes
- Practice changes
- New EBP
- New regulations
- New clinicians
- New generations
- New patient expectations
- Technology changes
- Bigger, Better, More!!!

WTH was that? Nothing unreasonable, just this guys tech!
So what happened?

- Time passes.....
- Practice changes
- Technology changes
- New “stuff” (challenges) shows up

- Anthrax (2001)
- West Nile Virus (2002)
- SARS (2003)
- Avian Flu (2006)
- H1N1/Swine Flu (2009)
- MERS (2014)
- Ebola (2014)
- Zika (2016)
- What’s next??
So what happened?

- Time passes.....
- Practice changes
- Technology changes
- New ”stuff” (challenges) show up
- **Build it and they will come!**
  - And they do! At least initially.

We are in Atlanta, I had to give you a little Walking Dead!
So, now what.....

- First and foremost: this is not a build problem!
- I’ve seen some great, even spectacular, builds from very talented people!
- This is partially a “Mars” “Venus” problem because we sometimes speak different languages and live in different worlds!
- In emergency management we use an “All Hazards” approach to situation management (however, nothing is perfect)
- Clinicians want basically the same (everything) in their facility (which is not possible)
- With this in mind I present, for your consideration, eight steps for a better honeymoon (or facility)
Step 1: Involve Clinicians Early
(but remember, they are clinicians)

• Clinician input is needed to help with “real world” issues and to build trust!

• Clinicians are **NOT** architects, builders or facilities experts (in case I have not proven that yet) and likely don’t speak the language
Step 2: Consider A Mock Up

Don’t forget simulation to see if it works!
Step 3: Include Flexibility

- Rail improves inventory and equipment changes
- Carts and modular storage allow for room configuration on the fly
Step 4: Multi-Purpose / Modular Space

Decontamination shower being used as triage ATP room

All equipment is in modular storage and on wheels for quick removal
Step 5: Vertical Spaces Are Powerful
(but need to be designed well to be functional)

- Many patients do not need a “stretcher”
- 70% by some counts - can vary by facility
- Vertical space care is conducive to split flow models and decreasing LOS
Step 6: Go For Lower Maintenance
Step 7: Think outside – literally – offload!

- Everyone has decontamination equipment.
- It is a necessary space hog!
- Consider recapturing space using a trailer
  - Small decon can be done with built in shower (you have one right?)
  - Climate control with shoreline if needed
  - Low cost (cost vs sq ft reclaimed)
Step 8: Don’t Forget Alternative Spaces
(surge management takes planning)

Waiting rooms, Conference rooms
Other public spaces
References


Enhanced Integration
Evolving Mercy’s Project Delivery

Presenters:
John Farnen - Vice President Facilities Design & Construction, Mercy
Mike Stapf - Vice President Design Integration, McCarthy Building Companies
Learning Objectives

1. Examine delivery methods
2. Outline processes for Enhanced Integration (EI) Delivery
3. Mercy McCarthy Enhanced Integration approach and results
Evolving to Enhanced Integration

MERCY HOSPITAL JEFFERSON CAMPUS EXPANSION

MERCY SPRINGFIELD HEART & VASCULAR

MERCY HOSPITAL ROGERS TOWER

ACE SUMMIT AND REVERSE EXPO
Delivery Progression

- MERCY ST. LOUIS
  - St. John’s Orthopaedic

- MERCY HOSPITAL CREVE COEUR
  - Tower C Expansion

- MERCY HOSPITAL JOPLIN

- MERCY HOSPITAL SPRINGFIELD HEART & VASCULAR

Design-Bid-Build

CM at Risk (CMaR)

CMaR with Design-Assist

Enhanced Integration

ACE SUMMIT
AND REVERSE EXPO
What led to this progression?

- Schedule
- Cost Control
- Reduced Duplication
- Teamwork
Comparing Delivery Methods

- D-B-B
- CMaR
- CMaR with Design-Assist
- Enhanced Integration

ACE SUMMIT
AND REVERSE EXPO
Continuous Improvement

EI TEAM KEY MEMBERS:
- bates
- McCarthy
- Northstar
- TME
- Heideman

TEAM MATURITY

MAXIMUM ACHIEVEMENT

PERFORMANCE

TIME

RISK

- Managed Control
- Strategic Improvement
- Reliability Driven
- Reactive Inefficiency

ENHANCED INTEGRATION PROJECTS:
- Mercy Hospital Jefferson
  - Campus Expansion
- Mercy Hospital Springfield
  - Welcome Center
  - Dietary Services
  - Heart and Vascular Services
- Mercy Northwest Arkansas
  - Inpatient Tower Addition
  - Springdale Clinic

Project teams when given a series of project assignments and a structured process of continuous improvement will realize **improvement in cost, quality and speed to market** not otherwise obtainable where team assignments are made randomly by strictly market forces.
Maximizing BIM

BIM Execution Planning
Early Subcontractor Involvement
Dedicated BIM Meetings throughout D&C
COBIE Deliverable Documents
As-buils modeled BACK into design model
Building a Strong Partnership

Smother Design & Construction Process

- Transparency within Team
- Faster Decisions
- More Effective Communication
Our Partnership Approach
What have been the results?

TRADITIONAL INDUSTRY PROCESS

TARGET BUDGET

PRELIMINARY DESIGN

FINAL GMP

CONSTRUCTION DOCUMENTS

DESIGN DEVELOPMENT

BID DOCUMENTS

MERCY JOPLIN ESTIMATE TIMELINE/PROGRESSION

NO SAWTOOTH EFFECT

MERCY HOSPITAL JEFFERSON SCHEDULE SAVINGS

2015

2016

2017

2018

DESIGN

PROCUREMENT

CONSTRUCTION

MJH USING INDUSTRY-TRADITIONAL DELIVERY

DESIGN

PROCUREMENT

CONSTRUCTION

MJH USING MERCY JOPLIN DELIVERY

DESIGN

PROCUREMENT

CONSTRUCTION

MHJ ENHANCED INTEGRATION

These schedules represent estimated durations for the Mercy Jefferson Patient Tower comparing a traditional CM-at-Risk delivery, the integrate approach used on the Joplin Replacement Hospital and the enhanced integrated practices currently being utilized on MHJ.
What’s next for our team & Enhanced Integration?