8th Chicago
Hospital, Outpatient Facilities & Medical Office Buildings Summit

Healthcare Hits the Reset Button

Planning, Real Estate, Design, Construction, and Operation of
Hospitals | Clinics | ASCs | MOBs | Retail
Telehealth | Hospital @ Home | Mobile Care
Non-Clinical | Research Facilities

www.squarefootage.net

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AMFP ASSOCIATION OF MEDICAL FACILITY PROFESSIONALS

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Welcome

Nicolette Brandstedt

Healthcare/Labs
Business Leader

Tarkett North America

Summit Ambassador

B. Alan Whitson, RPA

President

Corporate Realty, Design &
Management Institute

Squarefootage.net

June 6, 2023

How the Future of Healthcare Delivery is Rewriting Today's Capital Spending Plans

8th Hospital, Outpatient Facilities & Medical Office Buildings Summit

Speaker Introductions

Michelle Mader

Managing Director, Healthcare Strategy

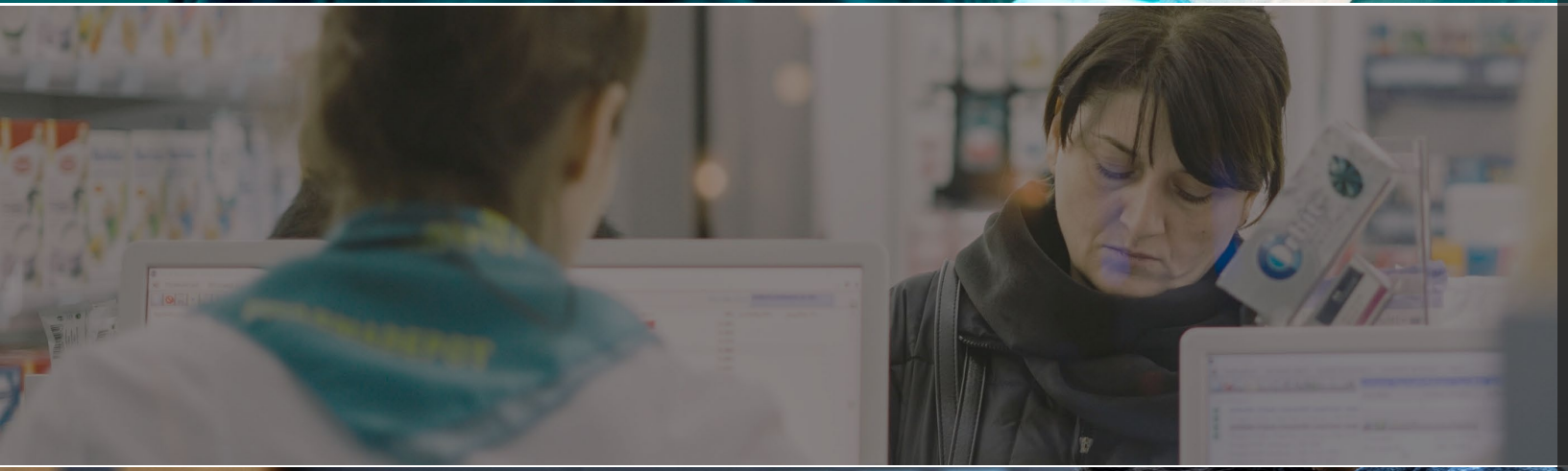
Ankura Consulting

Michelle serves as a trusted advisor to healthcare executives on prioritizing strategic initiatives.

She has completed 500+ health system master plans and specializes in guiding system-based capital prioritization.

Healthcare capital projects must:

GROW REVENUE
Provide Capacity
Boost Recruitment
Create Loyalty



REDUCE COSTS
Leverage Economies of Scale
Increase Productivity
Incorporate Technology

CREATE VALUE
For Patients
For Staff
On the Balance Sheet

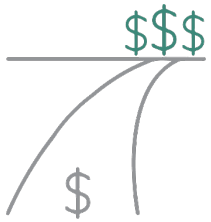
Major Sources of ROI Funding

Last 12 months

Operating Margins

"Approx half of US hospitals finished 2022 with a negative margin."

- Jan 2023 Kaufman Hall



Private Equity

84% bankruptcy increase from 2021-2022

Bonds

"Inflation is, in short, kryptonite for bonds"

- *cnbc.com, Jan 7 2023*

Philanthropy

Tied to portfolios

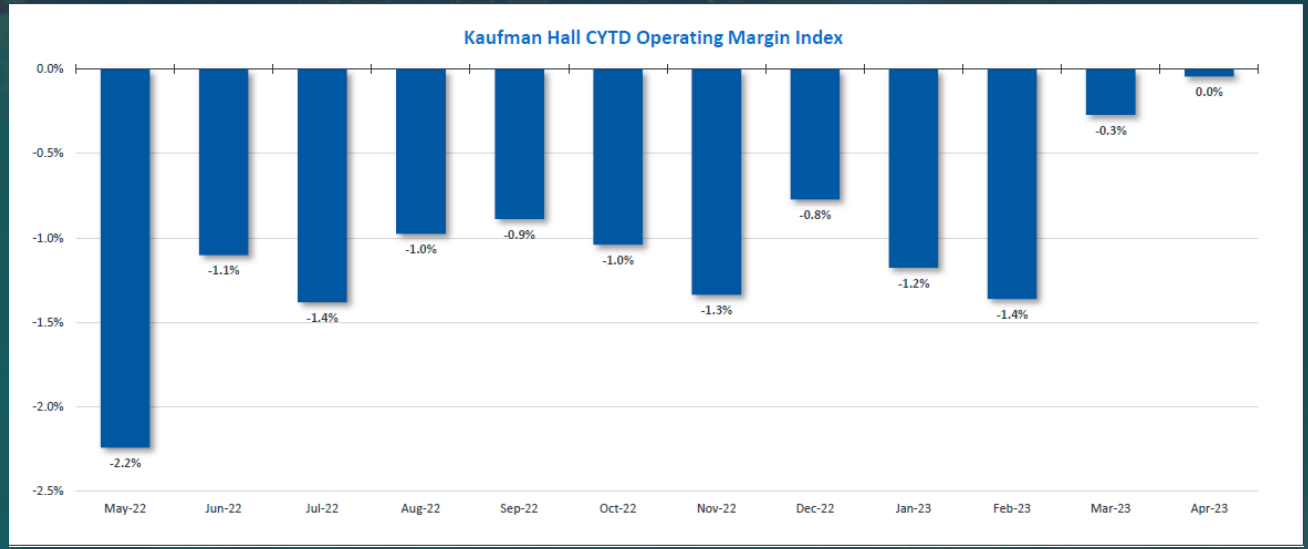
Portfolios

Worst since 2008

Ok, But What about Right Now?

May 2023, Kaufman Hall National Flash Report

- Hospitals broke even in April but have very little wiggle room
- Volumes are dropping while ALOS is increasing – double whammy
- Impact of Medicaid disenrollment is starting to materialize – increases in bad debt and charity care
- Inflation continues to be a problem and "throttle hospital finances."



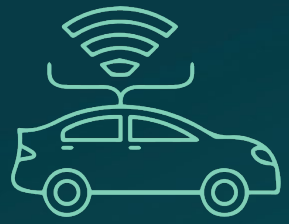
Forces Collide

Declining Capital
Market

Inflation
Supply Chain
Cost of Capital
Locked Up Credit

Unstable
Labor

Quiet Quitting
Layoffs
Retirements
Realignment

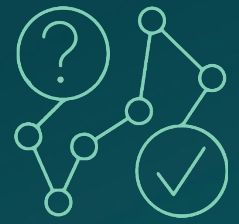


Technophile
Consumers

Convenience, Value
Where, When and
How I want it…

Rising
Acuity

Margin Eroding
Root Cause = Multi-
Variable



Slow
Reform

CMS (2.6%
increase) vs. actual
costs (6.5% inflation)
Medicare Advantage

Structural Changes to Healthcare's Delivery Model

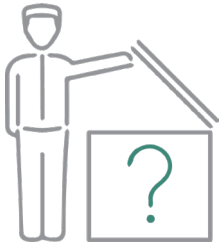
Capital Planning is Focused on Near-Term Challenges

“Fill It Or Kill It” – All About Utilization

Most healthcare capital projects don’t meet / exceed their ROI expectations

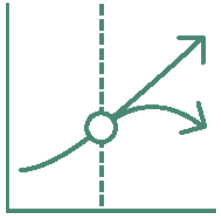
Capital Plans That Define What We Need Based On What We Can Afford.

What Does This Mean for Future Capital Plans?



Increased Due Diligence

- Scrutiny of investment business plans
- Multiple approval processes
- System-based capital competition

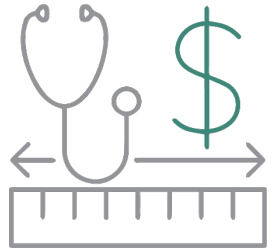


Pause or Abandon Projects

- Based on liquidity
- Rescoping to hedge against escalation
- Repurposing existing buildings
- Tech vs. Buildings

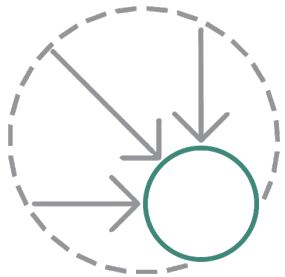
Increased Right-Sizing Pressure

- Scope: can't afford to build for volumes 10-20 years out
- Schedules: Time is money



Higher Revenue per Square Foot Expectations

- Pushing thresholds on utilization.
- Case mix optimization
- Increase productivity targets



Consolidation + Economies of Scale

- No longer access / distribution model to reduce overall fixed costs
- Consolidation of staffing resources / team approach

Strategies for ROI Recovery + Capital Planning

Partnership
versus M&A

Fewer, bigger deals

Margin
versus Revenue

Reprioritization
Reduction
Renegotiation

Rationalization
and Optimization

Ambulatory Sites
Reduce Leakage
Higher Revenue / SF

Consolidate
versus Duplication

Economies of scale
Access

Niche
versus Everybody

Fewer Projects
More Linear
Less Dispersed

Technology

Doubling Down
Task Replacement
Partnerships

Staffing Centric

Enhanced Focus

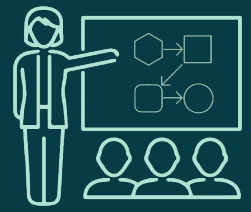
Convenience +
Value

ASC
Physician Aggregation
Home Care
Virtual Networks

Impacts to PDC Community: “Maximization of Flexibility”

Pre-Con, Scoping, Budgeting

High demand staff



Construction-Led Projects

Based on budgeting and cost control

Standardization

Continuous and consistent

- Functional programming
- Smaller designs
- Pre-fab, modular

I-2 vs. Business Occupancy

Size of rooms, offices, etc

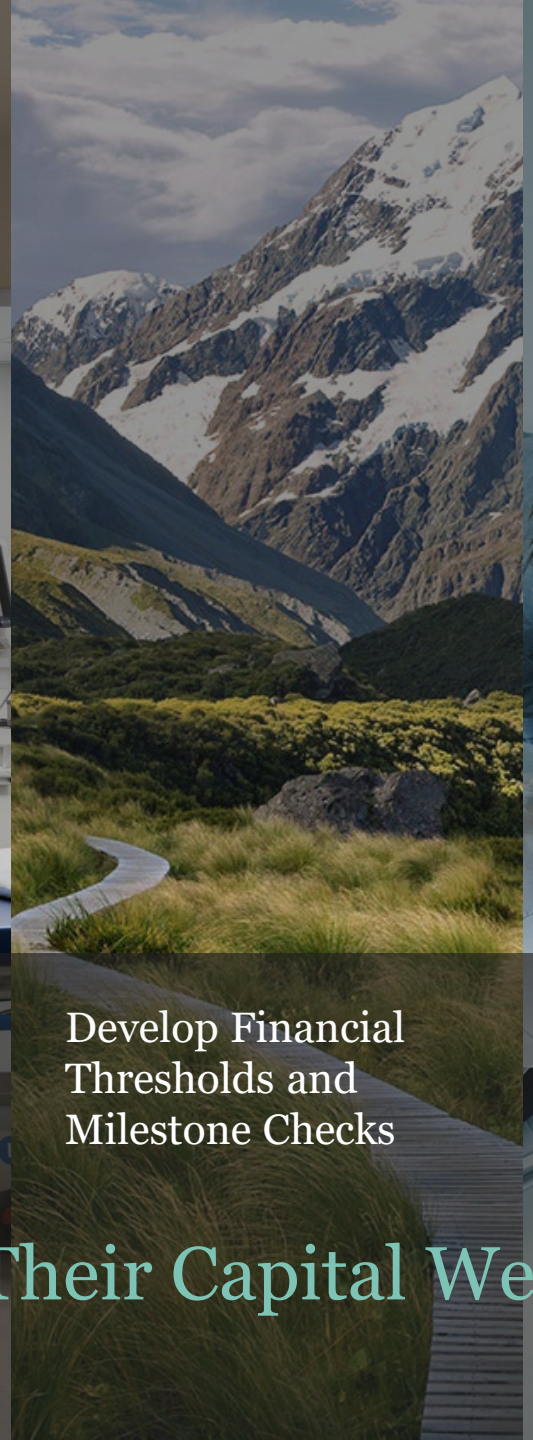
HOPD + IP support services

Repurposing vs. New

Economies of scale in materials

Challenge Teams to Identify What They Can Afford First

Use Data Driven Planning and Design Metrics



Develop Financial Thresholds and Milestone Checks

Look for Ways to Reduce Costs and Leverage Economies of Scale

New Construction as a Last Resort Solution + Infrastructure Monetization

How to Help Clients Plan Their Capital Well

Discussion / Q & A

https://www.linkedin.com/in/michellemader-healthcarestrategy/

Future of Ambulatory Care Facilities

Tyler Bauer, LCPC
Senior Vice President of System Ambulatory Operations
University of Chicago Medicine
Former Senior VP of Clinical Operations, NorthShore University Healthcare

Matthew Bluette, AIA, ACHA, AICP, NCARB, LEED AP
Principal
CUBE 3

Money Saving Solutions You Can Use Tomorrow

Five Ways ICRA 2.0 Impacts Your Temporary Construction Wall Considerations

- Johanna Welsh, CSI, National Accounts, STARC Systems Inc.

Clean Air

- Marc Johnson, Segment Manager - Healthcare, Camfil

5 Ways ICRA 2.0 Impacts Your Temporary Construction Wall Choices

Johanna Welsh
Director of National Accounts

Clarifications Directly Connected to Temporary Construction Wall Use and Advancements

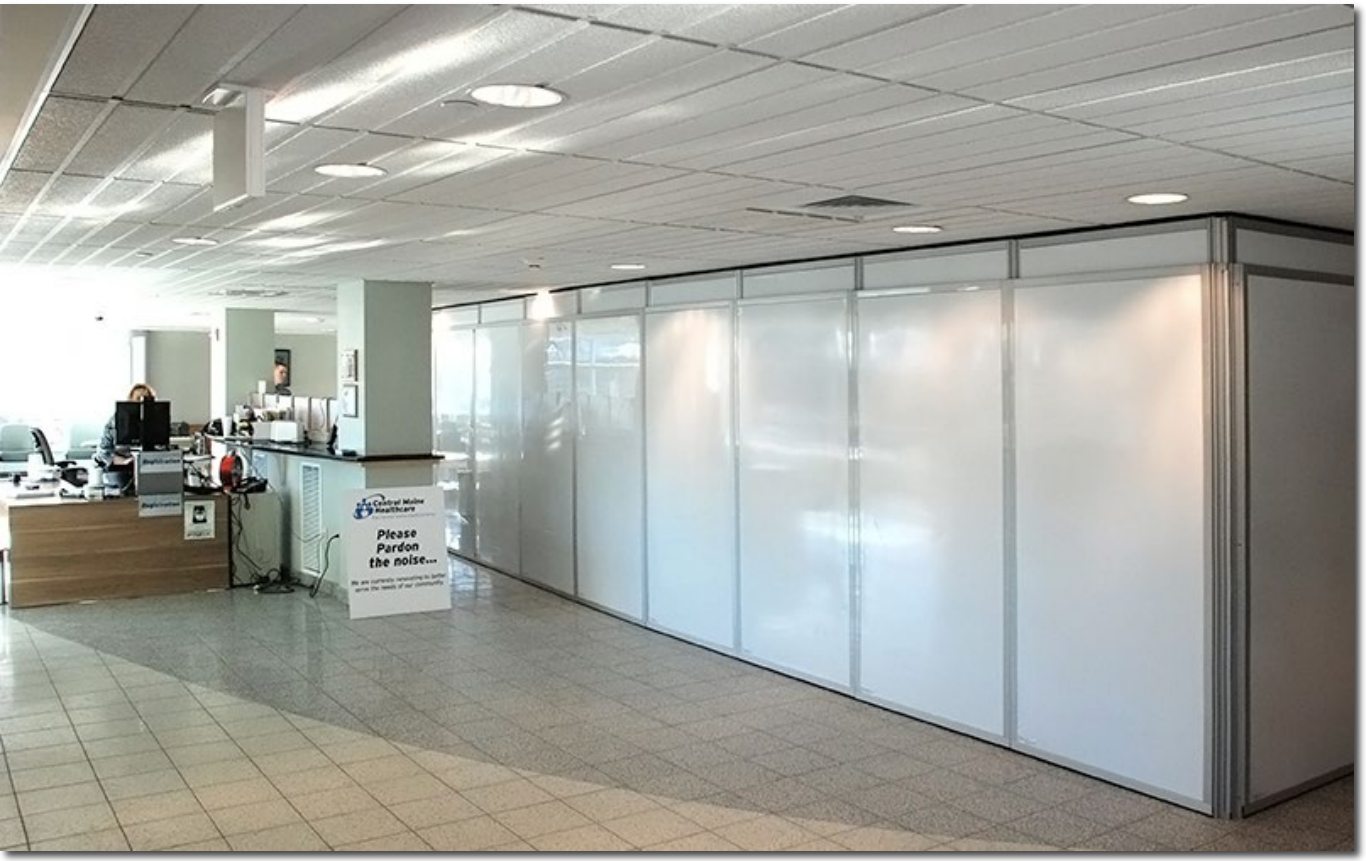
		CRM Activity Type			
		A *Inspection & Non-invasive*	**B** *Small scale, shorter Minimal dust*	**C** *Large scale, longer Moderate dust*	**D** Major demo & construction
Patient risk	Low Non care areas	I	II	II	**III**
	Medium Patient support	I	II	**III**	IV
	High Patient care	I	**III**	IV	**V**
	Highest Procedures, Invasive, Highly compromised patients	**III**	IV	**V**	**V**

Top 5 Clarifications:

1. Work spanning shifts
2. Dustless barrier construction
3. Negative air and filtrations
4. Temp Walls and NFPA
5. NEW! Class V: Anterooms a must

Work spanning shifts … benefit from hard barriers

Work that "cannot be completed in a shift" PLUS patient support / medium patient risk areas

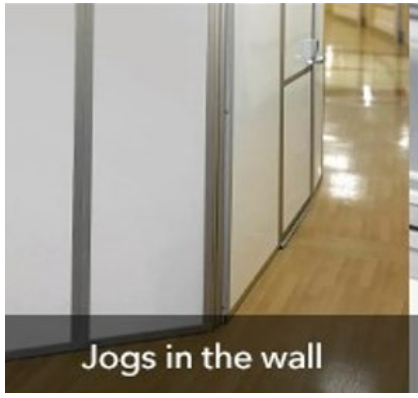


…graduate to **<u>Class III precautions</u>**

Setting Up Class IV+ Temporary Walls Should Be Dustless

… "affixed to ground or ceiling … secure from movement … with sealed gaps"

- ✓ **Tapeless**
- ✓ No cutting
- ✓ Single tool installation
- ✓ Versatile components for irregular project sites.



Class IV+ Negative Air Clarifications

- First precaution class where **negative air *required***
- Cascade airflow *into* construction area
- Monitor with a **digital** manometer.
- Use integrated Negative Air panels with pressure ports when HEPA filtering required.
- HEPA filtering required exhausting indoors, or outdoor within 25 ft of entrance or air intake.

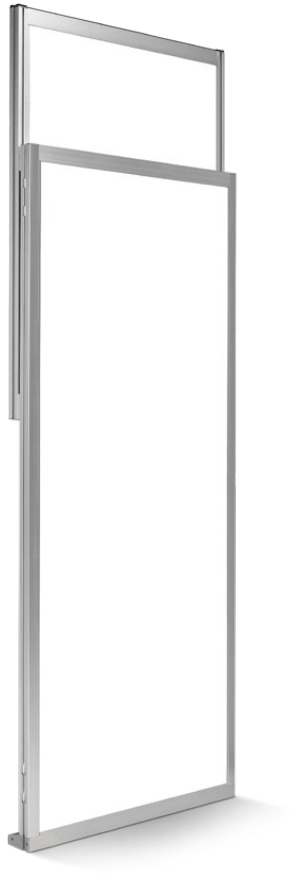
Class IV+ and NFPA 241

ICRA 2.0 reinforces **existing** fire safety standards (8.6.2) for Temporary Separation Walls*

FireblockWall™

WHEN....

- ✓ Separate occupied portion from renovation [when construction operations] “have higher hazard level than occupied area”
- ✓ Adjacent to other one hour rated assemblies
- ✓ Fast and re-usable install a priority
- ✓ **One-hour Fire Rated barrier E-119**
- ✓ *Non-Combustible, E-84 Class A*



RealWall™

WHEN....

- ✓ Approved automatic sprinkler installed
- ✓ Approved by local ILSM, AHJ
- ✓ **Non-Combustible, E-84 Class A**
- ✓ *Plastic and Visqueen discouraged*

** Subject to local AHJs and codes.*

NEW! Class V: Anterooms a Must!

- Dustiest projects near the most sensitive patients call for extra precautions
- Anterooms
  - ✓ Large enough for equipment staging and cleaning
  - ✓ Worker donning/doffing of coveralls
  - ✓ Adjacent to construction zone
  - ✓ Maintain negative air cascade to construction entry

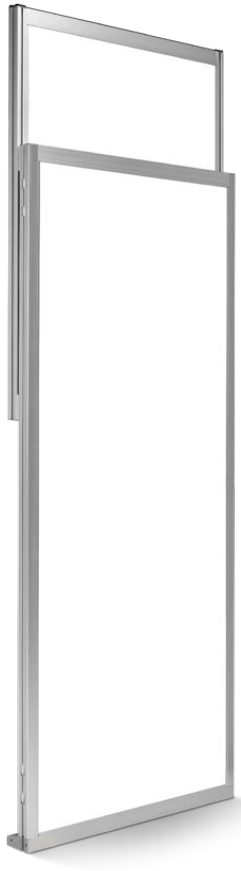
STARC: Designed for Versatility and Safety.

LiteBarrier™

- Light weight
- Very durable
- Lower up-front costs

ICRA 2.0 Exceeds ICRA IV and V Requirements

ASTM E84 Class A Fire & Smoke Rated



RealWall™

- Real wall appearance & stability
- Reduces noise up to 50%
- Unmatched durability

ICRA 2.0 Exceeds ICRA IV and V Requirements

ASTM E84 Class A Fire & Smoke Rated

FireblockWall™

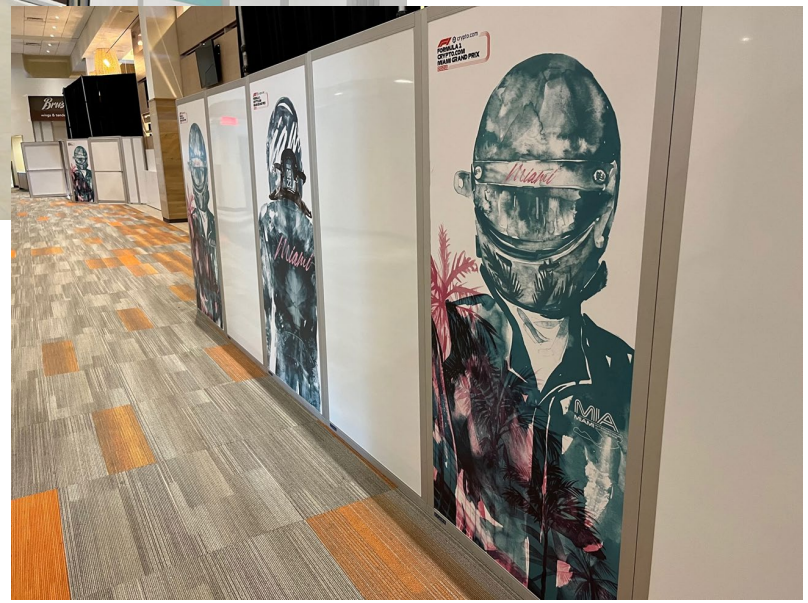
- First, one-hour fire-rated assembly
- Up to four times faster to install
- Superior noise blocking

1 HOUR ASTM E119 One-Hour Fire-Rated Assembly

ICRA 2.0 Exceeds ICRA IV and V Requirements

ASTM E84 Class A Fire & Smoke Rated

Customization Options



THANK YOU!

Johanna Welsh
518-859-9489
jwelsh@starcsystems.com

Clean Air:

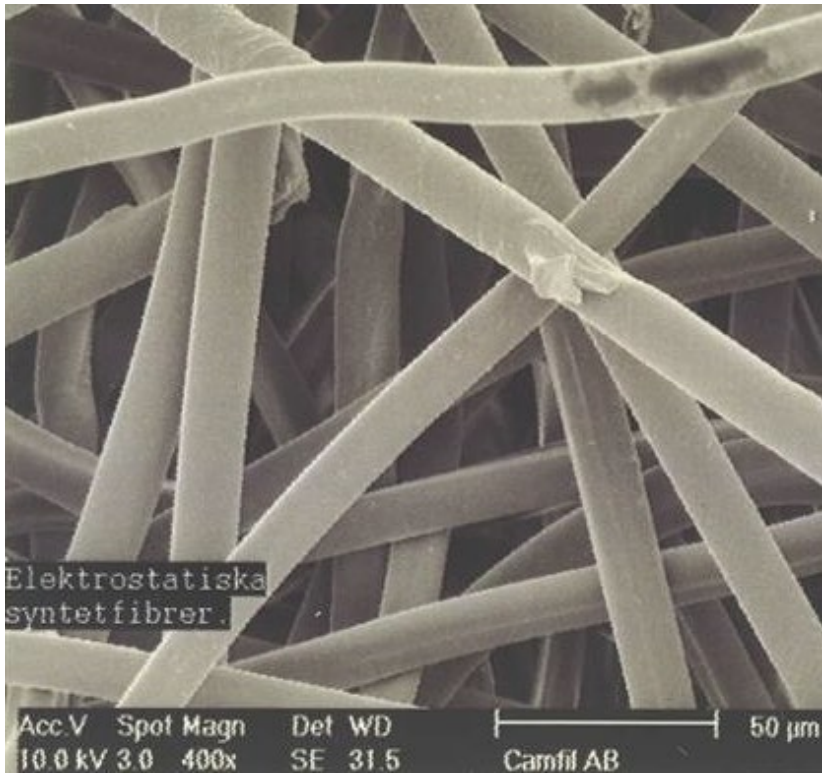
Marc Johnson
Healthcare Segment Manager
Camfil

Avoiding Compliance & Legal Risks

- ANSI/ASHRAE/ASHE Standard 170 Ventilation of Health Care Facilities
  - Ventilation rates & MERV rating of filtration
  - Standard 170 requires "non degrading" filters, which means filters with a MERV A rating
    - Test Method ANSI/ASHRAE Standard 52.2 Appendix J
    - Vendor must provide test results
      - Audit trail for compliance & risk management

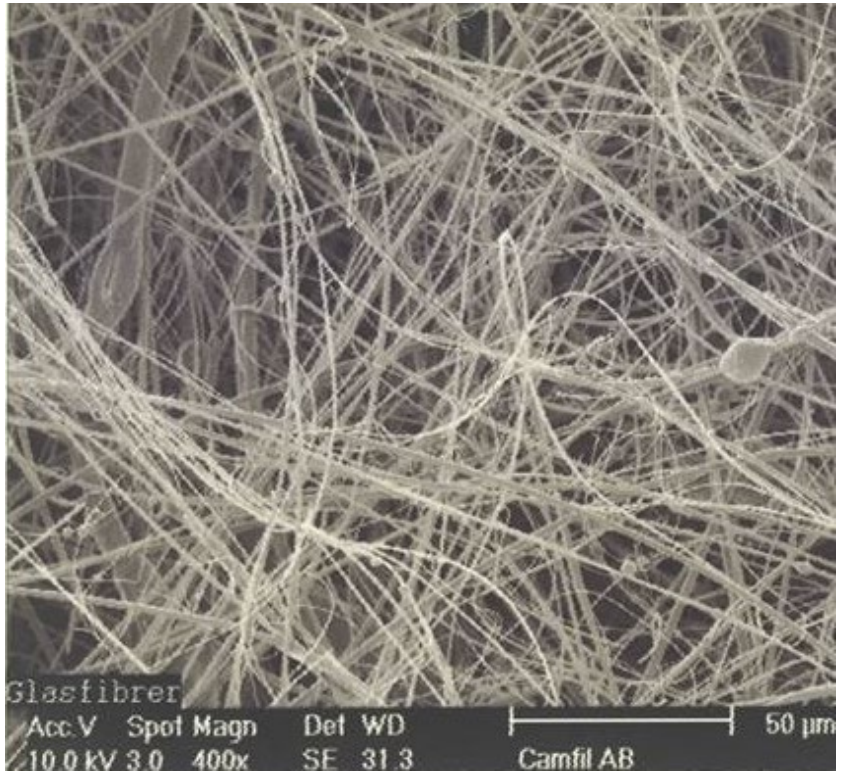
MERV vs MERV A

Both filters have same reported efficiency of MERV 13
But only one filter is MERV 13 A



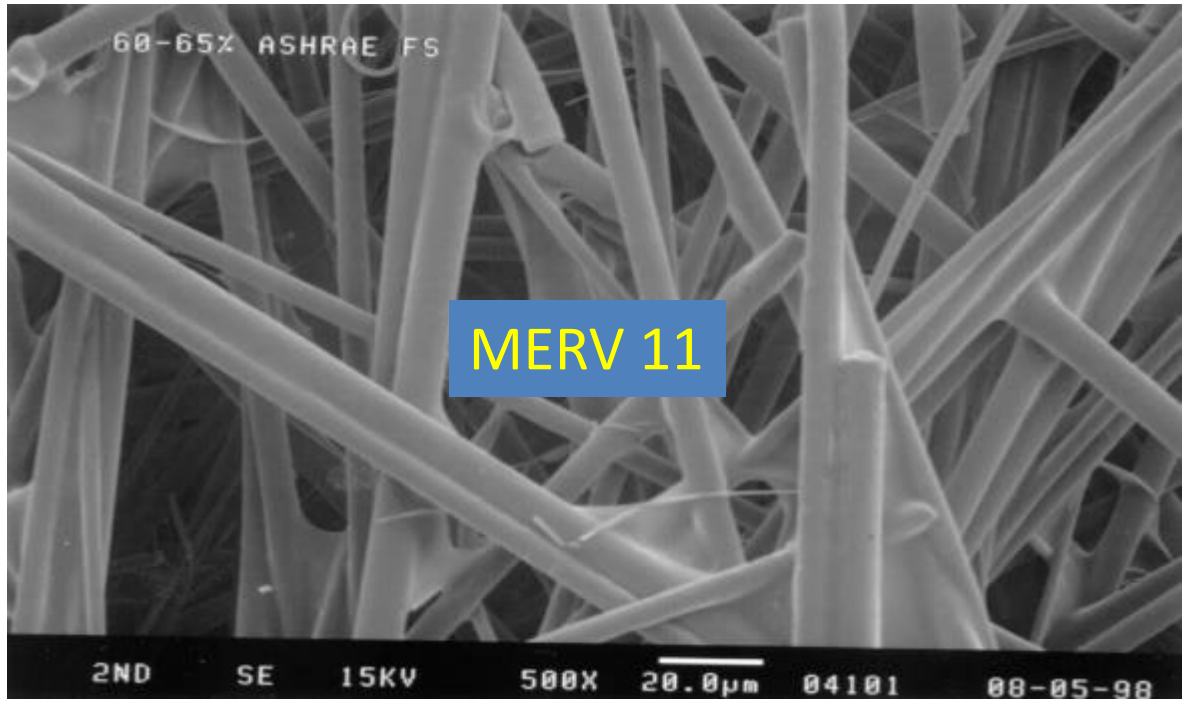
Coarse, Synthetic Fibers - fewer fibers/large diameter

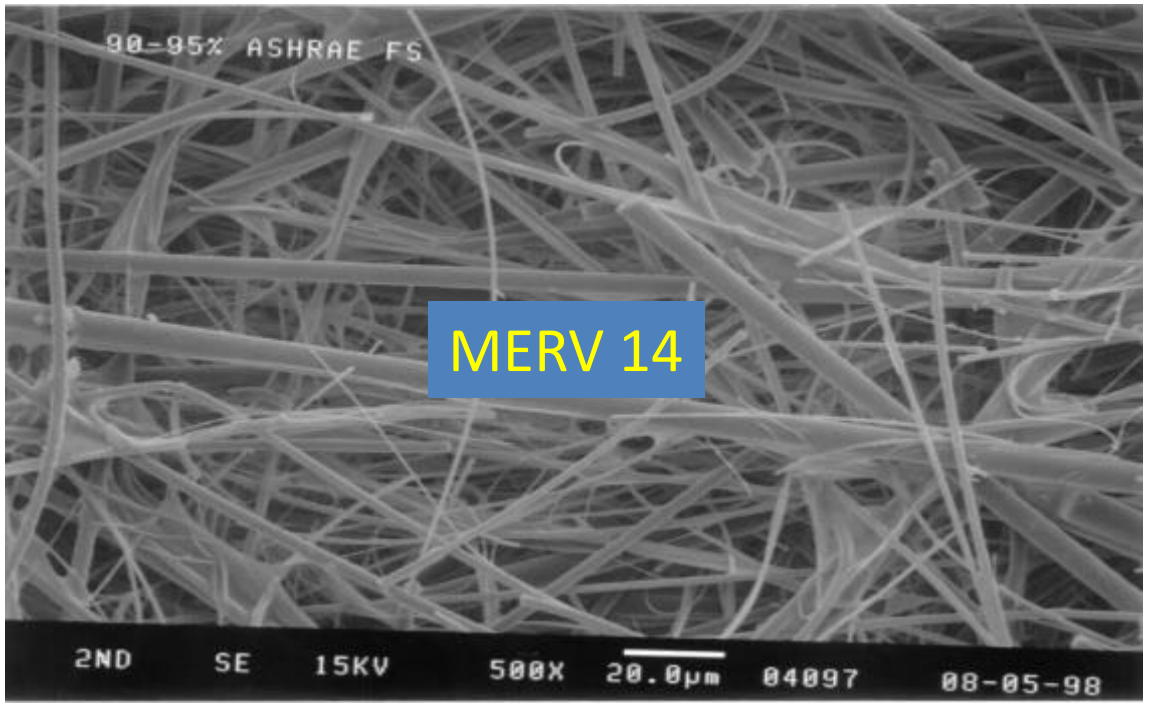
Charged Media Filtration

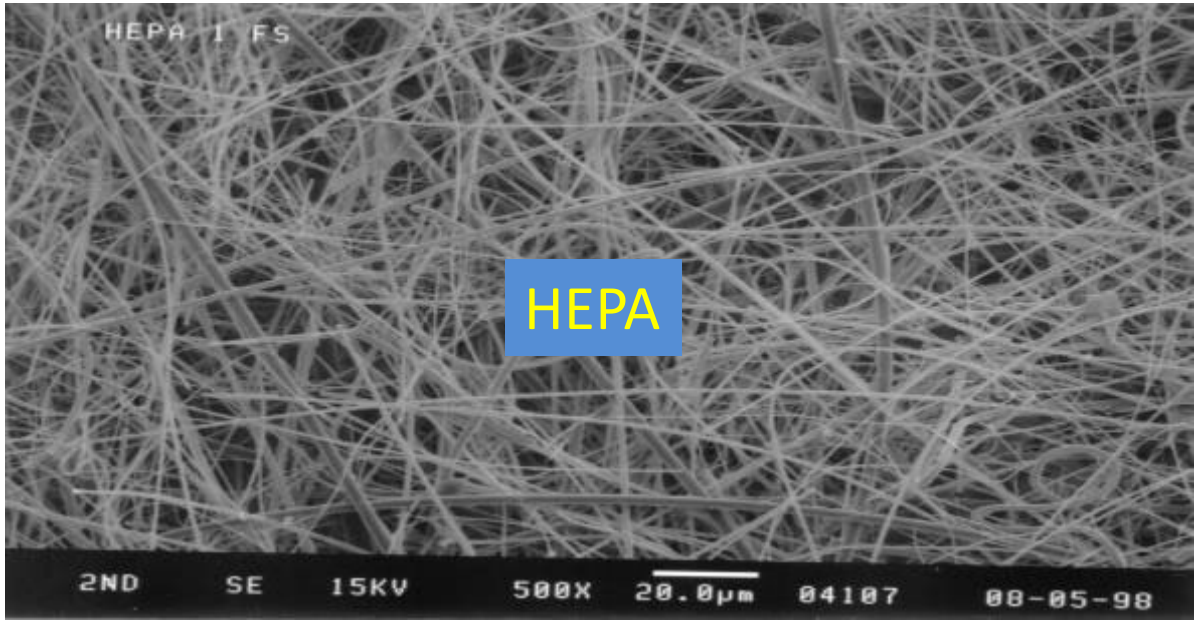


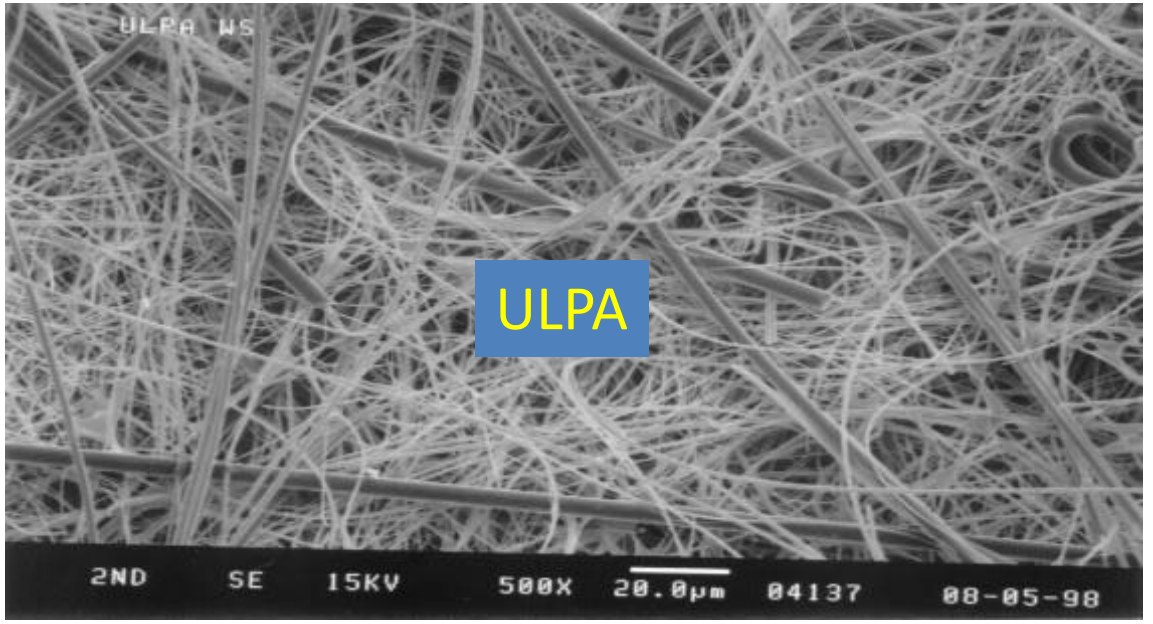
Glass Fibers – fine fibers many fibers/small diameter

Mechanical Media Filtration


60-65% ASHRAE FS
MERV 11
2ND SE 15KV 500X 20.0µm 04101 08-05-98


90-95% ASHRAE FS
MERV 14
2ND SE 15KV 500X 20.0µm 04097 08-05-98


HEPA I FS
HEPA
2ND SE 15KV 500X 20.0µm 04107 08-05-98


ULPA WS
ULPA
2ND SE 15KV 500X 20.0µm 04137 08-05-98

Filter Economics & Sustainability

- For every $1 spent on a filter $8+ is spent on the energy to push air through the filter
  - Model energy, filter, labor, and disposal cost
- Considerations to consider
  - Lowest pressure drop = energy savings
  - Longest filter life
    - Fewer filters
      - Lower labor & disposal costs
      - Most sustainable option
      - More effective use of labor

Strategic Planning for Sustainability

Christian Banks

Project Manager, Planning & Construction

Northwestern Medicine

Michael Fiore

AVP Clinical Operations Environment Health & Safety

NorthShore University Health

Ian Hughes

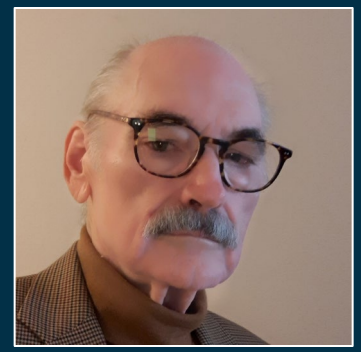
Sustainability Manager

Rush University Medical Center

Justin Jay Macadangdang

Program Manager, Facility Sustainability Officer

Jesse Brown VA Medical Ctr



Alan Whitson

President

Corporate Realty Design & Management Institute

Moderator

Get Smart: New Technologies are Changing How You Can Manage Healthcare Facilities

Braheem Santos
Healthcare Strategic Account Executive
Schneider Electric

Braheem Santos is currently the Healthcare Strategic Account Executive with Schneider Electric having recently joined from Penn Medicine. In this role, he helps to understand the needs of Strategic Healthcare Systems and how to best approach them with various technology solutions.

Previous to his current role, Braheem was most recently the Associate Director of Physical Plant for Penn Medicine's Hospital of the University of Pennsylvania (HUP) which followed his role as the Pavilion Project Engineering Manager. He has a demonstrated history of working in the hospital & healthcare industry to produce, sustain and innovate patient care facilities.

Braheem earned his BS focused in Mechanical Engineering from Drexel University where he is also pursuing his Master of Business Administration. He is a member of the Association of Medical Facility Professionals (AMFP), American Society for Healthcare Engineering (ASHE) and serves on the Board of Directors of the Healthcare Facilities Managers Association Delaware Valley (HFMADV).

Corey Gaarde
Associate Principal, Project Executive
IMEG Group

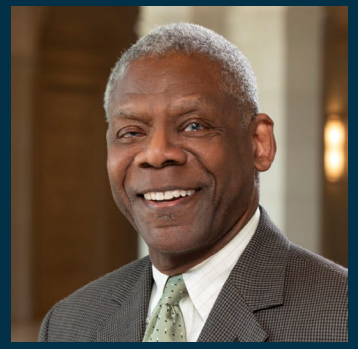
Corey Gaarde, FHIMSS, CPHIMS, is Project Executive for IMEG's Healthcare Information Technology (HIT) Advisory Services Team and an associate principal of the firm. Corey specializes in aligning HIT to the collaborative design process.

Corey is a biomedical engineer with more than 20 years of experience in healthcare information technology, fostering client and vendor relationships while developing and implementing complex healthcare IT projects. His experience ranges from IT management for a nationally recognized health system to providing advisory services for large integrated healthcare delivery networks, academic, community, and critical access hospitals, and innovative biomedical/medical device companies. His technical expertise, clinical aptitude, and innovative approach bridges the gap between technology, architecture/engineering, and clinical operations to drive an owner's mission and create service-oriented design.

Six Questions about Smart Buildings

1. *Smart buildings are all the buzz these days, what does "Smart Buildings" mean to you?*
2. *What are some examples of unique software collaborations?*
3. *What are some changes to the status quo you are seeing?*
4. *How does an owner quantify the ROI on intricate systems included in a "Smart Building"?*
5. *What are some lessons learned you can share with the audience so that they don't repeat the same missteps?*
6. *What are the elements needed to produce a successful "Smart Building"?*

Delivering Care: Social Equity & Access to Care in Underserved Communities



Marvin Daniels

Vice President
Project Mgmt

Hammes
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Walter Jones

Senior Vice
President

Glick Center
Hospital
MetroHealth
Campus

Steve Nargang

Regional
Vice President

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Delivering Care: Social Equity & Access to Care in Underserved Communities

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Discussion Outline

I. About MetroHealth

II. About Hammes Healthcare

III. Project Background & Vision

IV. Equity & Impact in Project Delivery

V. Diversity & Inclusion

VI. Project Funding & Reporting

VII. Successful Outcomes

VIII. Project Details and Facility Features

IX. Questions & Answers

MetroHealth

MISSION

Leading the way to a healthier you and a healthier community through service, teaching, discovery and teamwork.

VISION

MetroHealth will be the most admired public health system in the nation, renowned for our innovation, outcomes, service and financial strength.

- Licensed for 700 beds
- Operates an average of 400 beds
- Cuyahoga County hospital
- County's most experienced Level 1 Trauma center
- Comprehensive Burn Care Center
- Special Disease Care Unit (Ebola unit)
- Residency Program with Case Western Reserve University School of Medicine
- 30+ community locations
- School-based clinic services
- Jail healthcare
- Over 1 million visits (system) per year
- Over 100K emergency department visits

Hammes Healthcare

Modern Healthcare Best Places to Work 2023™

Modern Healthcare CONSTRUCTION AND DESIGN SURVEY 2023
TOP DEVELOPMENT COMPANIES
#1 HAMMES

2023 TOP revistamed HREI DEVELOPER

Founded in 1993, Hammes Healthcare is a nationally recognized leader providing real estate and market strategy, facility planning, project management and development capabilities.

20

Years ranked as #1 healthcare developer by Modern Healthcare's Construction & Design Survey

900

Healthcare real estate engagements completed

12

National office locations




Project Background & Vision

- When MetroHealth's hospital sustained damages in the 2014 polar vortex, during which 200 rooms were lost due to freezing pipes and flooding, it became clear the facility was deteriorating.

- MetroHealth leadership decided to address healthcare inequity and transform care by providing preventive/proactive care and education to Cleveland's underserved community in a new state-of-the-art facility.

Equity & Impact in Project Delivery

- The team maintained a focus on implementing building design elements that promoted “process neutral” application, supporting functional flexibility throughout the new healthcare complex.

- Critical use spaces are adaptable to allow changes without the need for major MEP or building component revisions. In an emergency, the hospital can expand up to 600 beds. Building materials were pre-purchased, which helped mitigate delays during the pandemic.

- MetroHealth’s focus on the community, local and minority-owned business participation in the project was important. Hammes, as owner’s representative, tracked diversity participation.

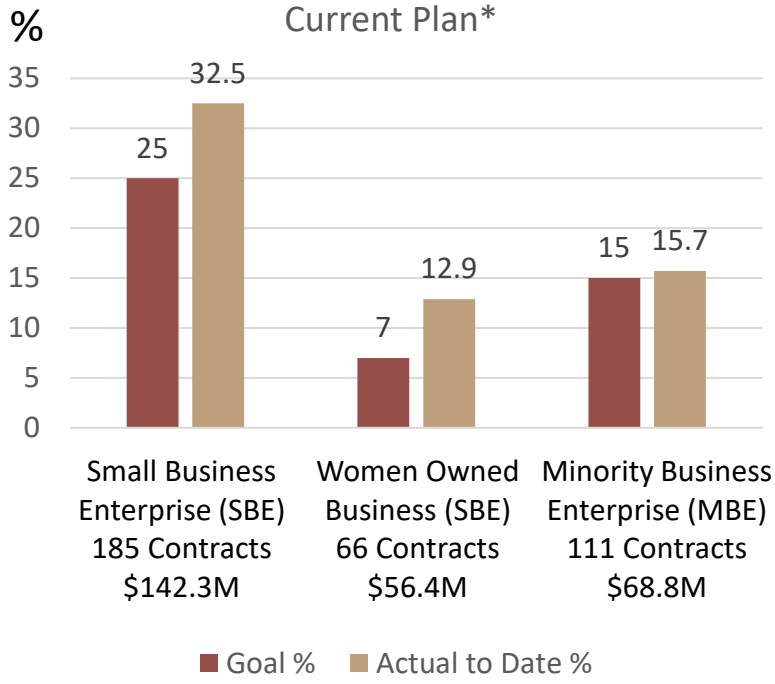
- The Hammes team included local firms Moody-Nolan (design) and Signet (project management). The team included a total 26 local firms of which 10 were minority or women-owned businesses.

Diversity & Inclusion

MetroHealth Campus Transformation – New Hospital & Central Utility Plant

Diversity and Inclusion Summary | February 2019 – February 2022

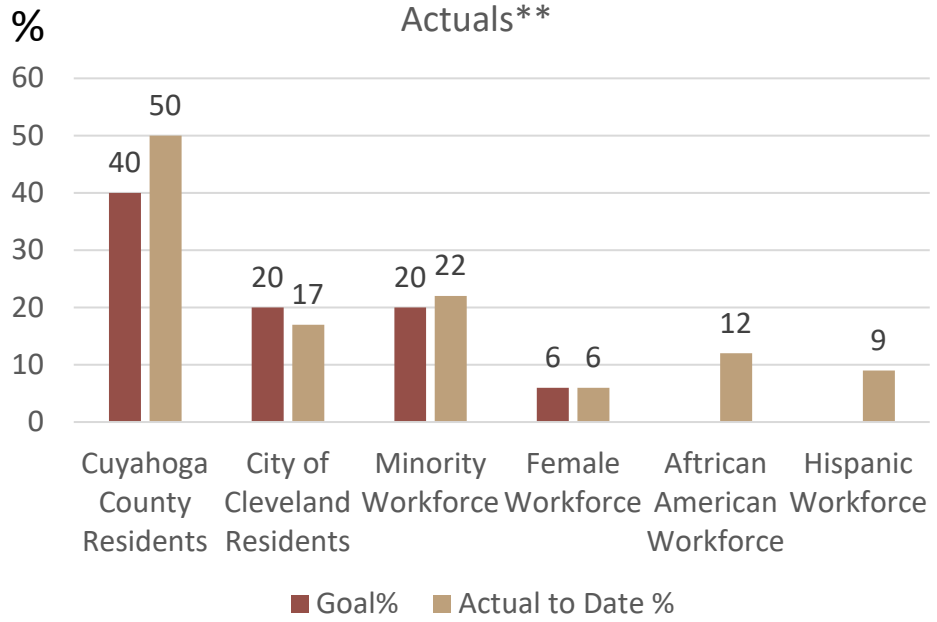
Subcontracting Projections
Current Plan*



Based on a total of $438,142,926 projected through GMP C – Base Contract (not including change orders)

*Vendors and contractors may be in multiple categories

Workforce Summary
Actuals**



**Data sourced from LCP Tracker

MAJOR CONTRIBUTING INFLUENCES

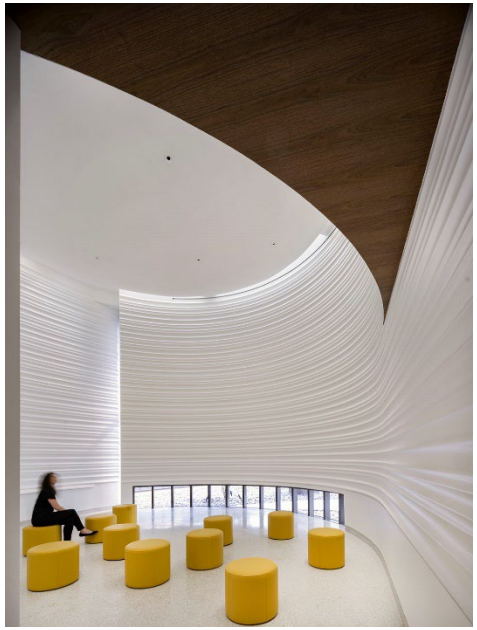
- Co-Sponsored Outreach Events and Inclusion Workshops
- CMAR use of Subcontractor Default Insurance (bonding resource)
- MetroHealth use of Owner Controlled Insurance Program (OCIP)

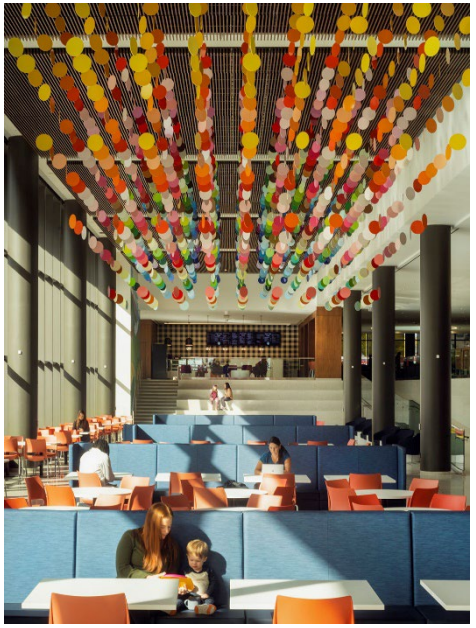
Project Funding & Reporting

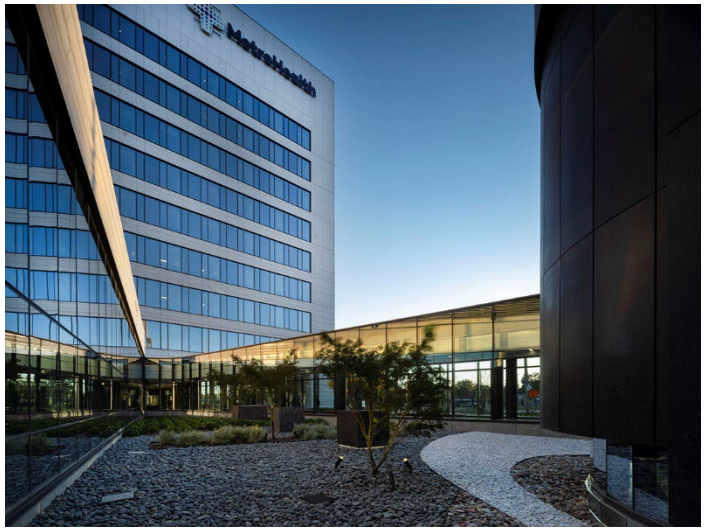
- Not only was the MetroHealth Campus Transformation unique for its equity impact, the Glick Center was one of largest self-financed projects for a public hospital in the country.
- The project was financed by $945M in hospital-revenue bonds. $670M was carved out for the hospital, with the remaining funds allocated to discretionary spending.
- No taxpayer money was used.

- MetroHealth also led a $150M fundraising campaign. Private Investors included the Glick family who made a $42M gift to the project.
- Hammes provided detailed reporting to independent auditing, which provided transparency and affirmation to investors that the project was on track financially.

Successful Outcomes







Project Details and Facility Features | Size & Scope

- 725K SF (1M SF w/ existing CCP)
- 11 stories
- All inpatient services

- 470 beds total (Glick + Women's and Children's)
  - 386 beds (Glick Center)
    - Capable of med/surg to ICU acuity
    - Equipped with 600-lb patient lifts
    - Capable of in-room dialysis
    - Configured with family alcove w/sleep sofa
  - 84 beds (adjoining Women's and Children's)

- $767M Total Project Budget
- $535M Construction Cost

- 8 years from project inception
- 4 years of design and construction
- Day One operation – November 5, 2022

Questions & Answers

MetroHealth

Hammes Healthcare

Glick Center Hospital MetroHealth Campus Video

To view video click this link:
https://www.squarefootage.net/video-metrohealth

Using Sliding Doors to Save Money

ALLEGION AD Systems

Using Sliding Doors to Achieve Privacy

- **Optimize Patient Privacy**
  - Privacy Glazing used for natural light transmission
  - Achieved soothing spa like exam space
- **Acoustical Goals**
  - FGI Guidelines for Acoustical Privacy achieved with NIC 39

Using Sliding Doors To Save Money

- Optimize Exam Rooms
  - Increase useable space within each room
  - More exam rooms – 1 exam room for every 11 planned
- Standardize Door and Hardware Configurations
  - Better budgeting, consistent pricing, inventory, and maintenance
  - Doors can meet all code requirements, reduces possibility of redoing door specification, and compliance issues


ADSYSTEMS™


C327
C321
C328
C322
C329
C323
C330

ALLEGION™

- Formerly known as Ingersoll Rand
- Global provider of security products and solutions
- Worldwide with over 10,000 employees
- 30 brands sold in over 130 countries
- Continued responsive services & quality products
- Leader in mechanical door hardware

SCHLAGE®

VON DUPRIN®

LCN®

Republic DOORS AND FRAMES

STEELCRAFT®

ZERO INTERNATIONAL

IVES®

GLYNN-JOHNSON®

TGP FIRE RATED

ISONAS™ PURE IP ACCESS CONTROL

AD SYSTEMS HIGH PERFORMANCE DOORS

Brio® where ideas unfold

FALCON®


STANLEY
ALLEGION
STANLEY
Access Technologies

Sampled Health Systems/ Networks/ IDNs

ALLEGION
REGIONAL SERVICE CENTER

Creating Jobs: Social Equity & Access to Care in Underserved Communities

Joan Archie
Executive Director
Business Diversity and Compliance
University of Chicago Medicine

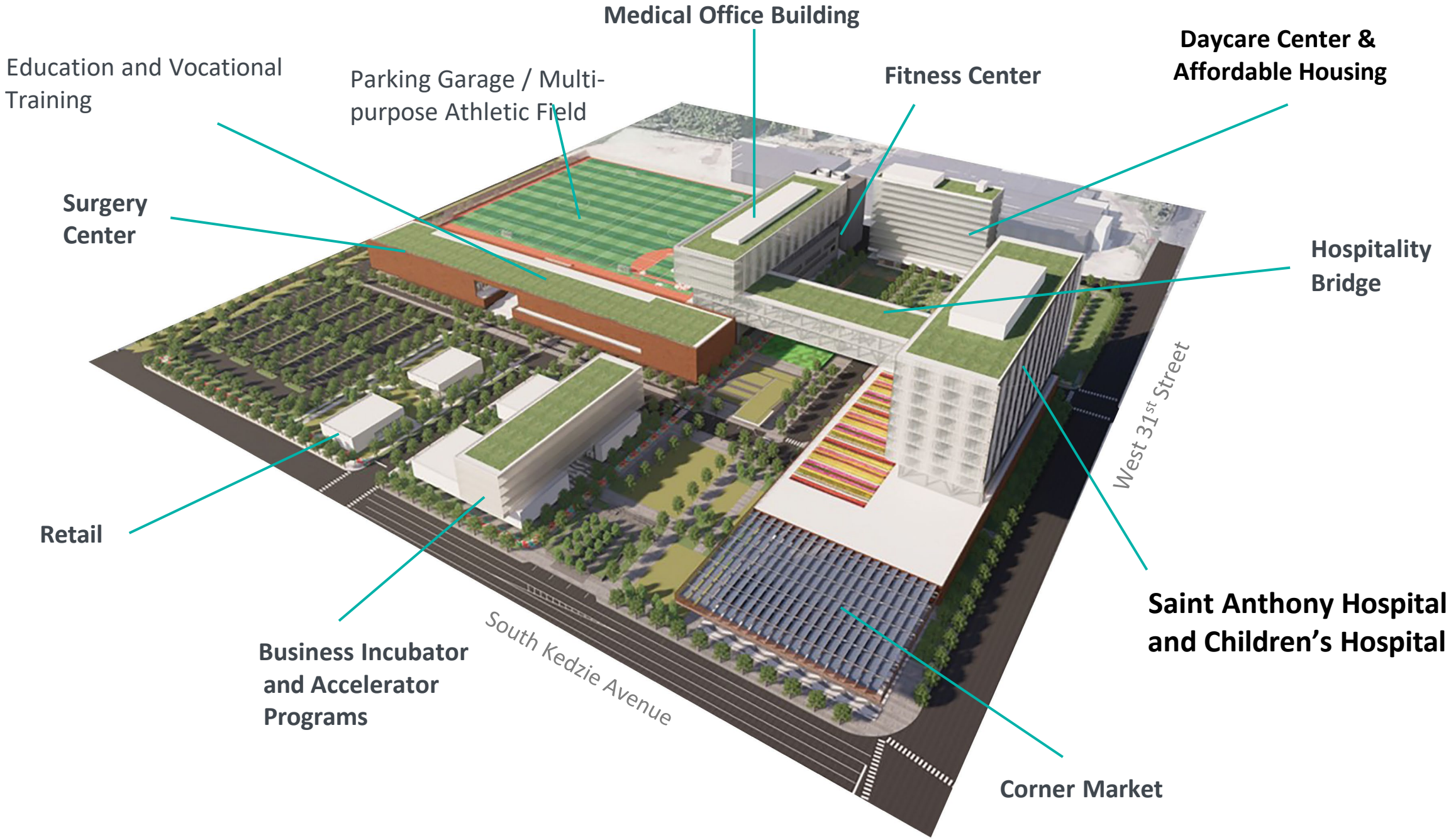
Guy Medaglia
President and CEO
Saint Anthony Hospital and
Chicago Southwest Development Corporation (CSDC)

Creating Jobs:
Social Equity & Access to Care in Underserved Communities

June 6, 2023

CSDC
Chicago Southwest Development Corporation

SAINT ANTHONY HOSPITAL


Medical Office Building
Education and Vocational Training
Parking Garage / Multi-purpose Athletic Field
Fitness Center
Daycare Center & Affordable Housing
Surgery Center
Hospitality Bridge
West 31st Street
Retail
Business Incubator and Accelerator Programs
South Kedzie Avenue
Saint Anthony Hospital and Children's Hospital
Corner Market

Campus Assets

LOCATION: Serving an area of over 440,000 people living in diverse neighborhoods on Chicago's west and southwest sides.
Developed around Five Pillars: Early Childhood, Education, Health and Wellness, Affordable Housing and Workforce Development

HEALTH AND WELLNESS: Anchored by a new state-of-the-future Saint Anthony Hospital and Children's Hospital, the campus will offer a comprehensive approach to community health with hospital services, outpatient clinics, community outreach, and mental health programs.

- 151-bed hospital
- Children's Hospital
- Certified Stroke Center
- Emergency Department
- Maternity Center
- Surgical Center

- Hospital commits over $15 million a year in Charity Care
- The SAH Community Wellness Program provides mental health counseling, parenting skills and offers early childhood development programs
- Partners with close to 100 community-based organizations, churches and schools

Community Engagement and Empowerment

At every stage, the Focal Point Community Campus vision has been shaped by extensive research and the voices of our community, including:

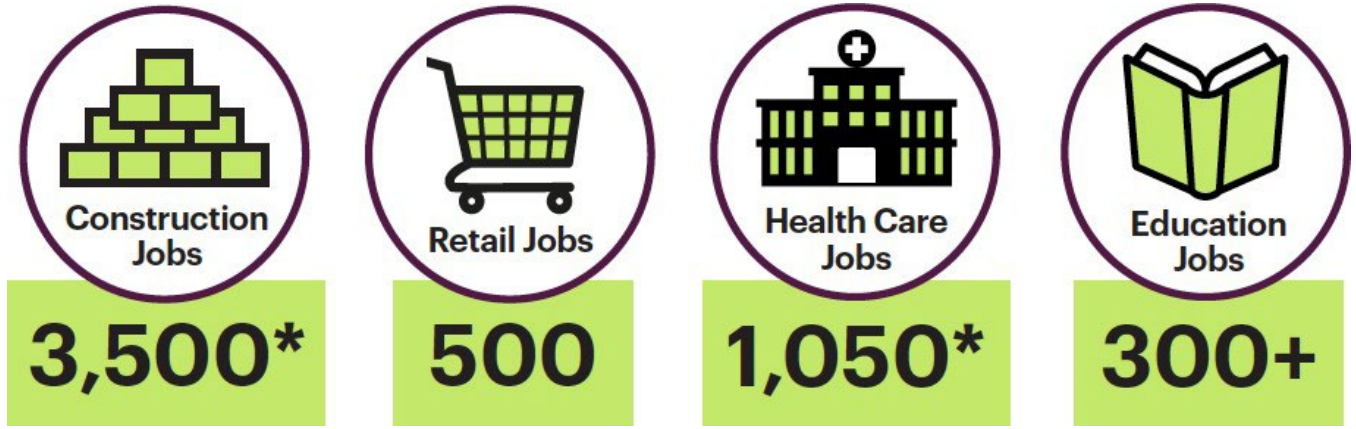
- A **comprehensive community needs assessment and visioning study** conducted in partnership with the University of Nebraska Medical Center, College of Public Health and the University of Nebraska–Lincoln, College of Architecture
- **Design planning meetings** that engaged over 600 community members to define the amenities and features that people valued most—resulting in a major expansion of the project scope
- A **public meeting and 1,500 petition signatures** to convince the alderman to back the project
- A **community entrepreneurship study** to inform and shape the small business support features of Focal Point
- Three rounds of **community retail surveys** to inform the design and use of retail spaces at Focal Point to best meet community needs
- Inclusive **architectural programming process** with staff input to support staff efficacy and caregiver wellbeing, as well as input from elected officials and Executive Directors of local community organizations to connect the Focal Point vision to their work

Impact on Workforce Development

Focal Point will have a significant short-term job impact and is also designed to address long-term employment and economic growth needs through its extensive offerings in retail, business incubation, and apprenticeship programs.

Young people, low-wage, underemployed, unemployed workers and formerly incarcerated individuals are earning living wages and on a path that supports them and their families.

1.8 Million Projected Labor Man Hours



*Temporary

*Including jobs retained at Saint Anthony Hospital

Priority will be given to contracting with MBE and WBE companies as well as hiring locally for jobs.

“I Love It, Now Change It”
Transitioning to Stable Occupancy through Proactive Planning

AMFP Chicago Summit
“Healthcare Hits the Reset Button”

Chicago, IL
June 6, 2023

PMA
Project Management Advisors, Inc.

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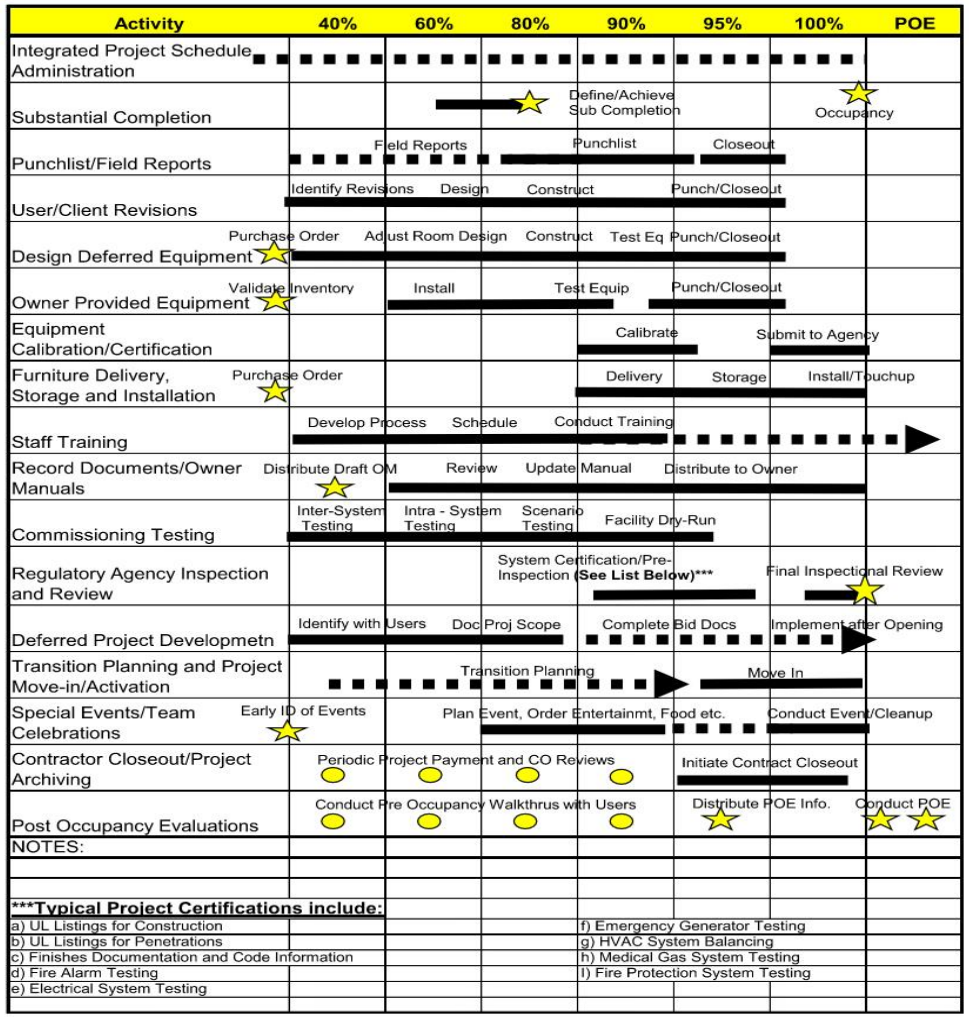
“I Love It, Now Change It”
Transitioning to Stable Occupancy through Proactive Planning

Stable Occupancy

- Projects of all sizes need a robust plan to transition from “construction is complete” to when operations are up and running smoothly and maximizing productivity and profitability.
- There are significant challenges in making this transition and they depend on project scale, complexity and schedule.
- The task is very similar to fueling your car while driving – It can be done with thoughtful, strategic planning but it is fraught with risk, challenges and the potential for bad things to happen.

Typical Project Closeout Integrated Schedule



Prepared by VOA Associates Incorporated

There is a difference between closing out “the project” and managing the unavoidable transition of projects, operations and initiatives that overlap the close out and operations start up.

Stable Occupancy Challenges

The transition to stable occupancy is typically driven by five distinct “buckets” of scope

1.) Project Overlap

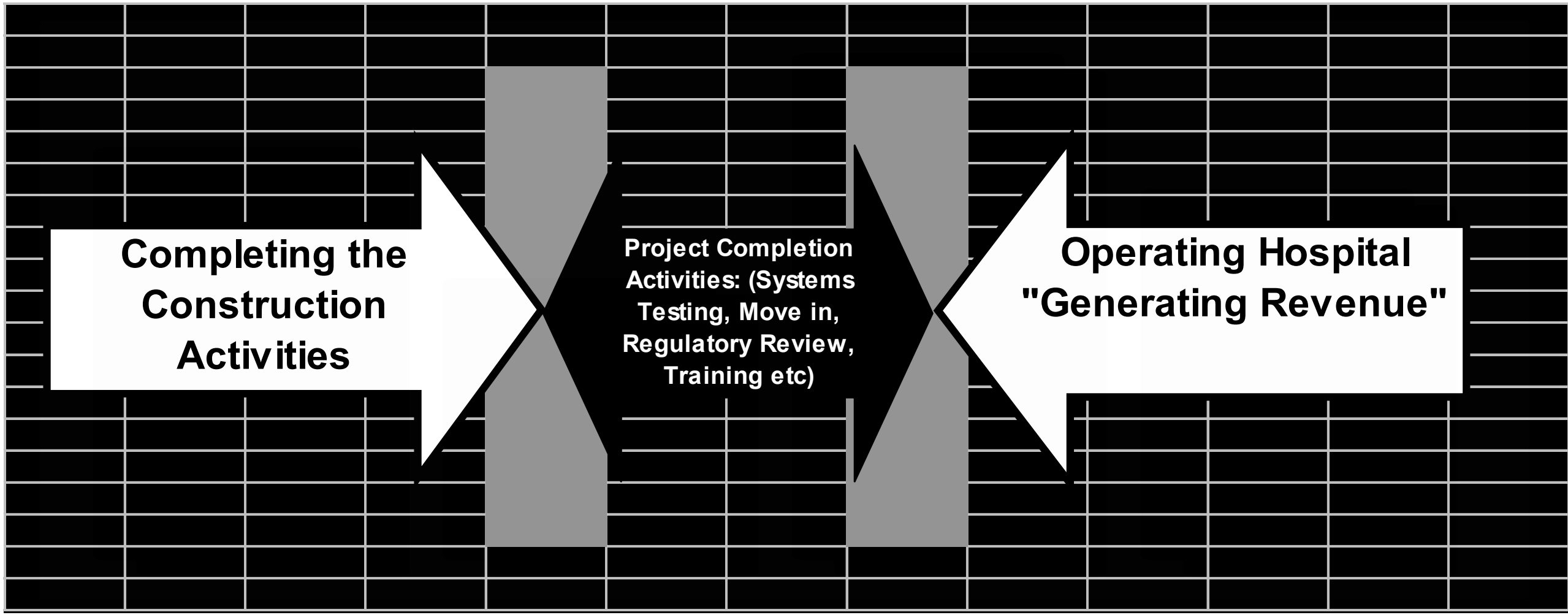
- **Systems testing overall and as integrated with Owner training/orientation**
- **Warranty Items**
- **Completing last minute changes**

2.) Owner Driven

3.) Planning

4.) The Journey

5.) Outside Forces


Completing the Construction Activities
Project Completion Activities: (Systems Testing, Move in, Regulatory Review, Training etc)
Operating Hospital "Generating Revenue"

Stable Occupancy Challenges

1.) Project Overlap

2.) Owner Driven

- **Program, Leadership, Care Model - Changes**
- **Change of mind**
- **Budget Status – shortfall vs. windfall, donor engagement**
- **Evolution of business models, operations, etc.**

2.) Planning

3.) The Journey

4.) Outside Forces

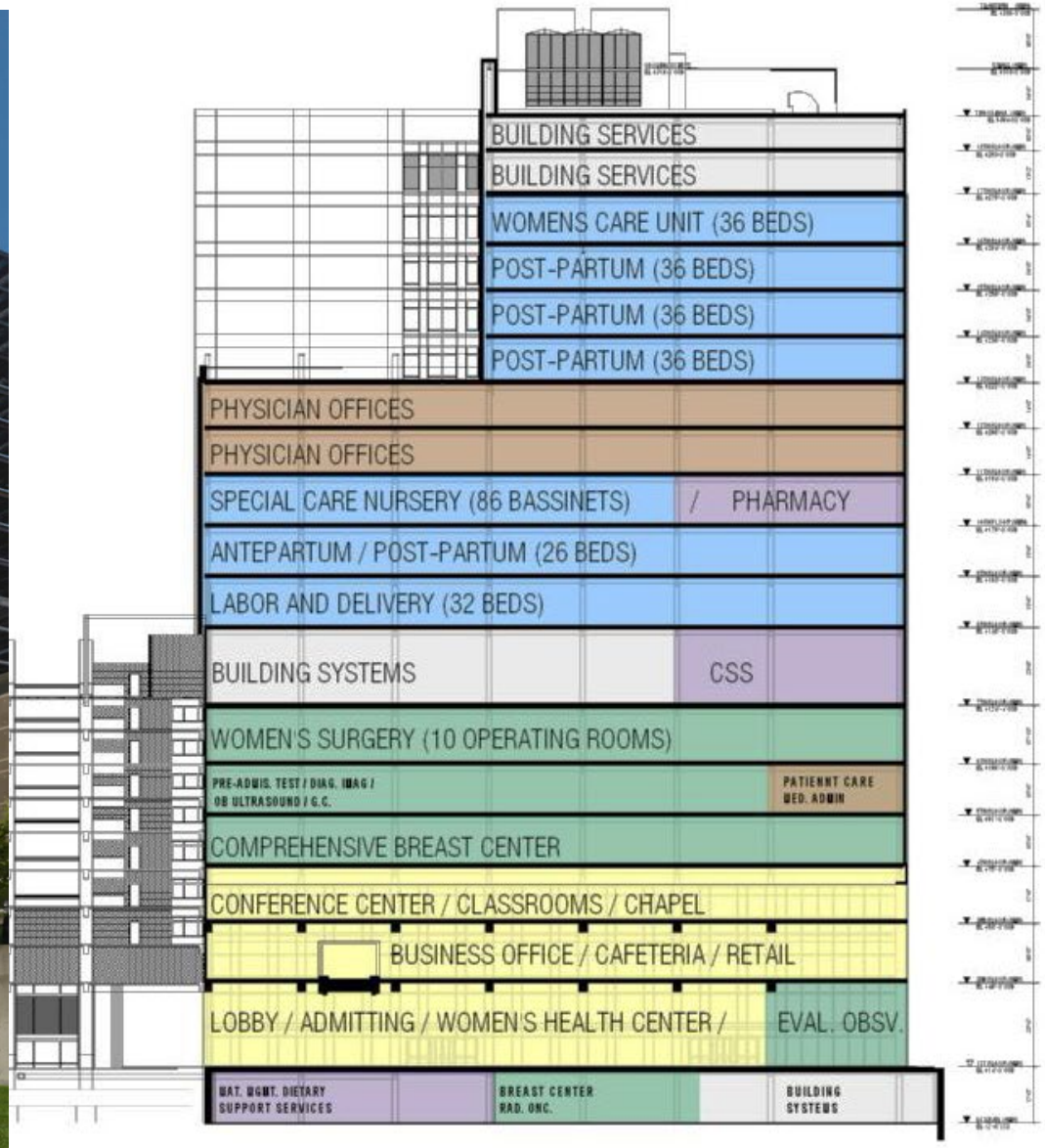
Owner Driven Changes

845

Stable Occupancy Challenges

1.) Project Overlap
2.)Owner Driven
3.) Planning
- **The planning was either incorrect or not planned for at all**
- **Planning was not timely enough to align with project schedule**
- **Strategy/Planning evolves over the course of the project**

4.) The Journey
5.) Outside Forces


BUILDING SERVICES
BUILDING SERVICES
WOMENS CARE UNIT (36 BEDS)
POST-PARTUM (36 BEDS)
POST-PARTUM (36 BEDS)
POST-PARTUM (36 BEDS)
PHYSICIAN OFFICES
PHYSICIAN OFFICES
SPECIAL CARE NURSERY (86 BASSINETS)
/ PHARMACY
ANTEPARTUM / POST-PARTUM (26 BEDS)
LABOR AND DELIVERY (32 BEDS)
BUILDING SYSTEMS
CSS
WOMEN'S SURGERY (10 OPERATING ROOMS)
PRE-ADMIS. TEST / DIAG. IMAG / OB ULTRASOUND / G.C.
PATIENNT CARE
MED. ADMIN
COMPREHENSIVE BREAST CENTER
CONFERENCE CENTER / CLASSROOMS / CHAPEL
BUSINESS OFFICE / CAFETERIA / RETAIL
LOBBY / ADMITTING / WOMEN'S HEALTH CENTER /
EVAL. OBSV.
MAT. MGMT. DIETARY SUPPORT SERVICES
BREAST CENTER RAD. ONC.
BUILDING SYSTEMS

Planning

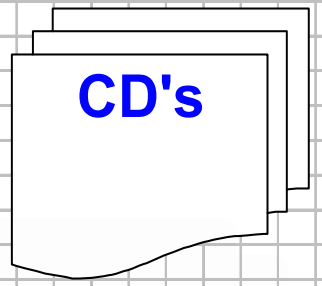
Stable Occupancy Challenges

1.) Project Overlap
2.) Owner Driven
3.) Planning
4.) The Journey
- **Mockups**
- **Physical space takes shape**
- **Evolution of equipment design and new equipment/technology**
- **Evolution of operations – projects, initiatives, etc.**
- **Post occupancy epiphanies**

5.) Outside Forces

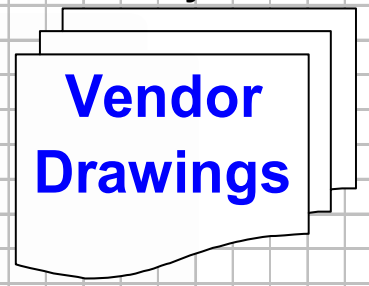
Generic Information on Contract Documents.

Step 1



Room is strategically "design deferred" to allow for decision making on the equipment to occur with minimum impact on the construction.

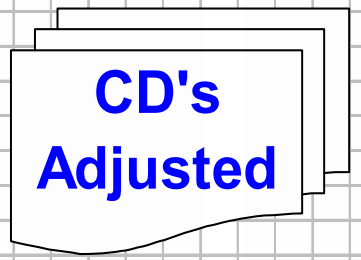
Site Specific Vendor Drawings for Use by A/E.



Step 2

An Equipment Vendor prepares a "site specific" set of construction criteria for their equipment installation. This criteria includes the structural loading requirements, the architectural placement of equipment and support equip, the MEP and IT requirements and, lastly, any installation information.

A/E Adjusted Contract Documents per Vendor Site Specific Input.

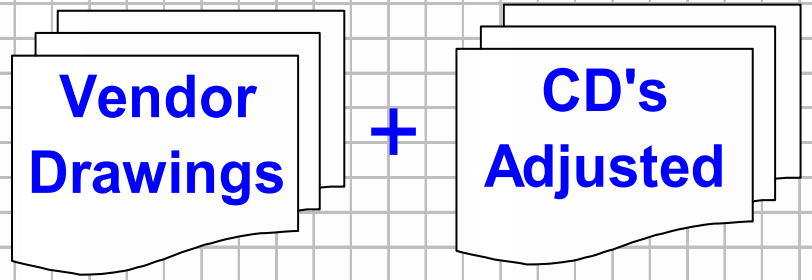


Step 3

A/E "Adjusts" their drawings to reflect the building requirements that correspond with the revised site specfic information prepared by the Equipment Vendor and issues as a Bulletin for pricing and integration

Step 4

Issuance of A/E Adjusted Drawings and Vendor Site Specific Installation Drawings.



A/E Drawings are issued in conjunction with Equipment Vendors' installation drawings to the contractors for implementation and equipment installation and calibration.

The Journey

Stable Occupancy Challenges

1.) Project Overlap
2.) Owner Driven
3.) Planning
4.) The Journey
5.) Outside Forces

- **AHJ Changes**
- **Discontinued products**
- **Supply Chain Challenges**
- **Funding or payment models**


1F

Set Up Project for Success

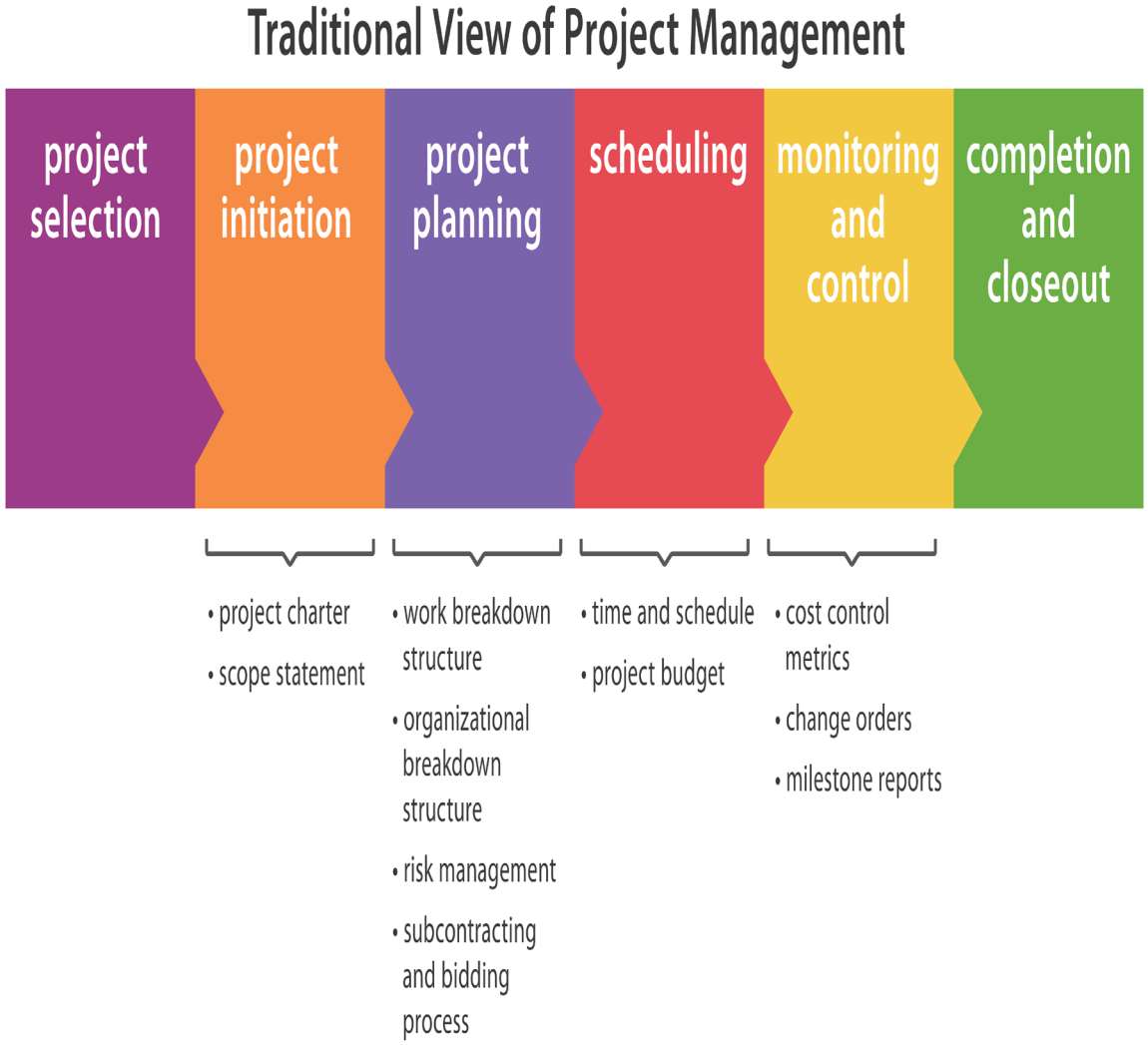
Set Up Project for Success

Accept the fact up front that it will occur – because "it will occur" – budget for time, resources and funding. It is a phase of the project and is often overlooked and undervalued for its importance

1.) Incorporate the plan for Day 2 into Day 1 planning – especially important in procuring consultants (A/E/CM) up front

2.) Develop and implement a Day 2 schedule that ties directly to the Day 1 schedule. Review frequently and partner with A/E/CM for an accountable and transparent process.

3.) Owner – Develop a robust "Owner Change Committee" from Day 1. Have the right partners (Clinical Operations, Support Services, Facilities, HTM, IM, etc.) – acts as a clearing house for changes to vet if they affect the project



Set Up Project for Success

4.) Develop a template (i.e. business case) for the proposed changes so that they are being evaluated appropriately. i.e. not just listening to the loudest voice – pay close attention to the patient/family/staff experience and any disruption – categorize (must happen now, plan now/implement later, Day 30 – Day 180, etc.)

5.)When changes are made (and they will be) have a defined path for robust communication that includes the impact to schedule, budget, operations, etc. Make sure affected front line workers get the information. Crucial to have a holistic, comprehensive and thoughtful communications plan with the right people to implement it.

6.) Have milestone check ins with Owner teams for operations reviews against original plan. Often the CD's indicate the end of the collaboration. While painful and includes cost it ultimately finds issues earlier and stabilizes operations and income earlier. Typically includes a very positive ROI

Questions, Comments, Stories and Anecdotes

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“I Love It, Now Change It”
Transitioning to Stable Occupancy through
Proactive Planning
Thank you.
PMA
Project Management Advisors, Inc.

Building + Supporting an Agile Design + Construction Team

June 6, 2023

McLaren HEALTH CARE

Barton Malow

HED

Gresham Smith

PROGRAM PANELISTS

AUSTIN HOLCOMB, PE
Corporate Director of
Construction Management
McLaren Health Care

COLIN MARTIN
Project Executive
Barton Malow

DAVID JAEGER, AIA,
LEED AP, EDAC
Principal-in-Charge
Harley Ellis Devereaux (HED)

BRYAN FINNEGAN, AIA,
LEED AP, CLGB
Project Architect
Gresham Smith

McLaren HEALTH CARE
Barton Malow
HED
Gresham Smith

TEAM HISTORY + CULTURE

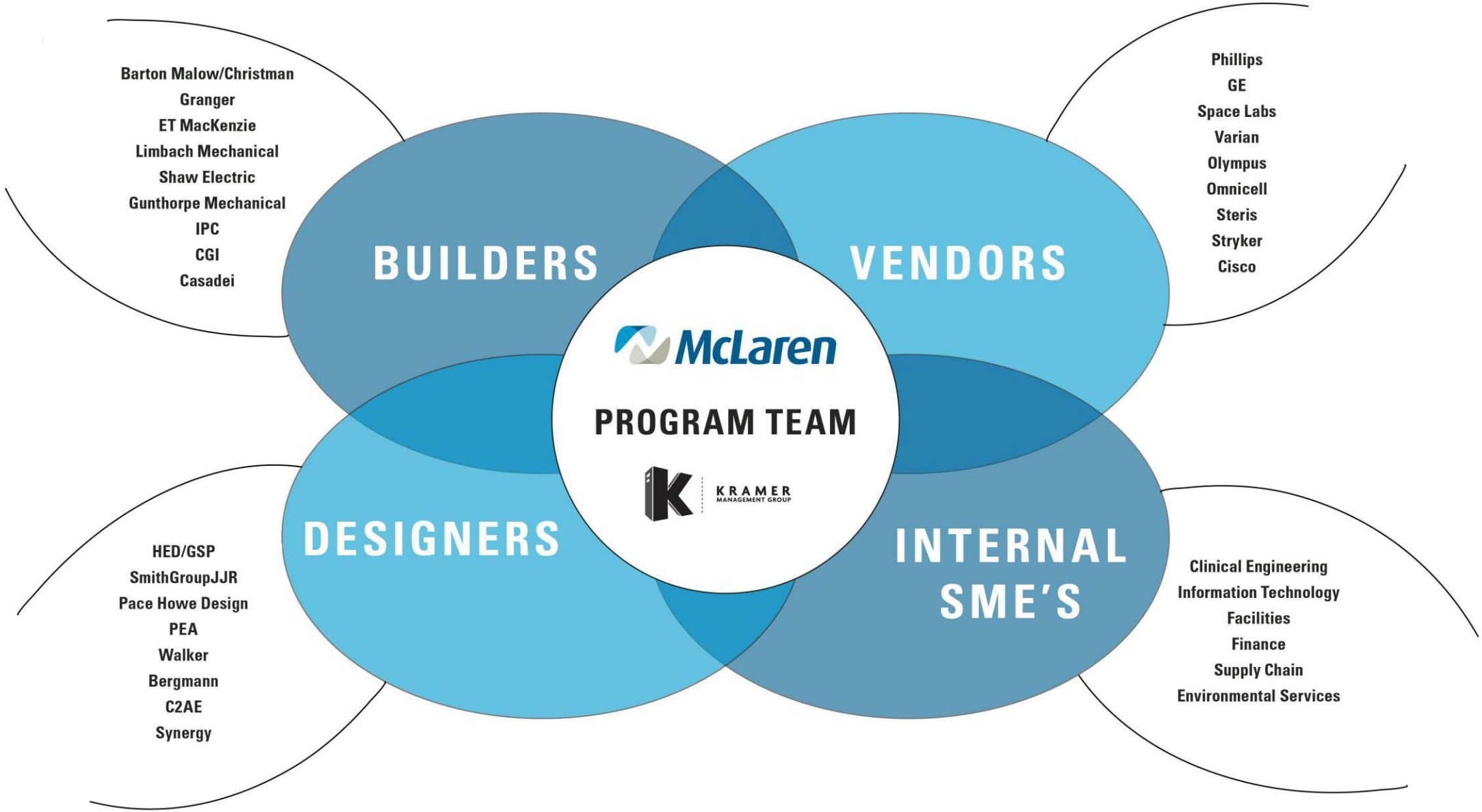
ESTALISHED TEAM DYNAMIC

GREAT PEOPLE + A GREAT PROJECT CULTURE

THE “BEST OF THE BEST” PEOPLE FOR THIS PROJECT

PEOPLE THAT EMBODIED THE CULTURAL FIT NECESSARY TO ENSURE SUCCESS

Program Integration



McLAREN GREATER LANSING HOSPITAL


McLaren
GREATER LANSING

THE RIGHT APPROACH...THE RIGHT MINDSET

CONTRACT TYPE + PARTIES INVOLVED

Design-Build with IPD-Lite

Program Manager, A/Es, Consultants + Construction team

Early engaged equipment suppliers

EARLY ONBOARDING OF DESIGN-ASSIST PARTNERS

Partners were selected on value, not price

Changed the course of the project

Early buy-in and commitment to the approach

LEAN IMPLEMENTATION

Big Room / Co-location • Design Assist • Choosing by advantages •
Last planner • TVD • POD Meetings • Takt • VDC • Prefabrication • 6S

COLLABORATION + ACCOUNTABILITY

Project:
Location: Lansing, Michigan

Joint Venture between:	A/E	&	Local Architect	Design Assit - MEP & Structural
Primary Responsibility by Firm:	Planning, Design & Interior Architecture		Architect of Record and Constr Admin	Mechanical / Electrical / Structural
Office Location:	Chicago, Il		Detroit, MI	Michigan

DIVISION of SERVICE RESPONSIBILITY ---------- ARCHITECTURAL & INTERIOR DESIGN BASIC SERVICES ONLY

Proposed Fee - - - -

SYMBOLS:
X - Major Responsibility
O - Minor Responsibility
E - Equal Responsibility
Blank - No Responsibility

Based on AIA Document B141
BASIC SERVICES - ARCHITECTURAL & INTERIOR DESIGN ONLY

Percent of Total Fee	ARCHITECTURAL & INTERIOR DESIGN BASIC SERVICES	Division of RESPONSIBILITY												
			CRTKL				Local Architect				Design Assit - MEP & Structural				
		Task Value	Firm Resp.	Task Weight	% Calc.		Firm Resp.	Task Weight	% Calc.		Firm Resp.	Task Weight	% Calc.		Calc. Check
$ - 25%	**SCHEMATIC DESIGN PHASE**														
	Team Coordination Meetings	1.00%	X	0.60	0.01			O	0.20	0.00	O	0.20	0.00		
	Client Work Sessions	5.00%	X	1.00	0.05				0.00	0.00			0.00	0.00	
	Project Scope Definition	0.00%	X	0.70	0.00			O	0.10	0.00	O	0.20	0.00		
	Building Code Analysis	2.00%	X	1.00	0.02				0.00	0.00			0.00	0.00	
	Site Analysis & Planning	9.00%	X	1.00	0.09				0.00	0.00			0.00	0.00	
	Document Existing Conditions	0.00%	X	1.00	0.00				0.00	0.00			0.00	0.00	
	Building Design Concepts	15.00%	X	1.00	0.15				0.00	0.00			0.00	0.00	
	Functional Department Planning	17.00%	X	1.00	0.17				0.00	0.00			0.00	0.00	
	Schematic Design Set	20.00%	X	1.00	0.20				0.00	0.00			0.00	0.00	
	Engineering Systems Analysis Coord.	3.00%	X	0.70	0.02			O	0.20	0.01	O	0.20	0.01		
	Submission to Code/Reg Agency (Health)	1.00%	X	1.00	0.01				0.00	0.00			0.00	0.00	
	Submission to Code/Reg Agency (City)	1.00%	X	1.00	0.01				0.00	0.00			0.00	0.00	
	Target Value Design	5.00%	X	0.30	0.02			X	0.30	0.02	X	0.40	0.02		
	Draft Specifications	10.00%	X	1.00	0.10				0.00	0.00			0.00	0.00	
	Bidding Documents to trades	10.00%	X	1.00	0.10				0.00	0.00			0.00	0.00	
	Billing of A / E / I Services	1.00%	X	1.00	0.01				0.00	0.00			0.00	0.00	
	Percent of Schematic Design Fee	**100.00%**			**95.20%**				**2.30%**				**2.80%**		**1.00**
	SERVICE SPLIT by % of TOTAL FEE				**$ - 23.80%**				**$ - 0.58%**				**$ - 0.70%**		
$ -	30% **DESIGN DEVELOPMENT PHASE**														
	Team Coordination Meetings	1.00%	E	0.40	0.00			E	0.40	0.00	O	0.20	0.00		
	Client Work Sessions	7.00%	E	0.40	0.03			E	0.40	0.03	O	0.20	0.01		
	Site Development Planning	7.00%	O	0.10	0.01			X	0.90	0.06			0.00	0.00	
	Building Envelope Design	15.00%	O	0.10	0.02			X	0.90	0.14			0.00	0.00	
	Interior Design	5.00%	O	0.10	0.01			X	0.80	0.04			0.00	0.00	
	Building & Finish Materials Selection	3.00%	O	0.10	0.00			X	0.80	0.02	O	0.10	0.00		
	Room-by-Room Data Sheets	17.00%	O	0.10	0.02			X	0.80	0.14	O	0.10	0.02		
	Major Medical Fixed Equip Coordination	5.00%	O	0.10	0.01			O	0.40	0.02	X	0.50	0.03		
	Engineering Systems Devel. Coord.	5.00%	O	0.10	0.01			O	0.30	0.02	X	0.60	0.03		
	Design Development Documents	20.00%	O	0.10	0.02			X	0.50	0.10	O	0.40	0.08		
	Code / Reg. Authority Submission	5.00%	O	0.10	0.01			X	0.50	0.03	O	0.40	0.02		
	Probable Construction Cost Statements	0.00%		0.00	0.00			O	0.20	0.00	E	0.50	0.00		
	Target Value Design	3.00%	O	0.20	0.01			O	0.40	0.01	E	0.40	0.01		
	Civil Package	3.00%	O	0.10	0.00			X	0.80	0.02	O	0.10	0.00		
	Foundation and Structural Packages	3.00%	O	0.10	0.00			E	0.35	0.01	X	0.65	0.02		

TEAM HEALTH

TRUST THE PARTNERS

CULTURE OF TRUST

TRUST THE PROCESS

Team Assessment Report Card

4.44	4.63	SAFETY
4.33	4.39	TEAM COHESION**
3.85	3.82	INFORMATION – SHARING / COMMUNICATION**
1.90	1.93	**TEAM CONFLICT****
3.58	3.49	GOAL SPECIFICATION
4.17	4.24	TRUST

Scale: 1 = Low 3 = Avg 5 = High

Trust
4.17
Total Average Score
4.24

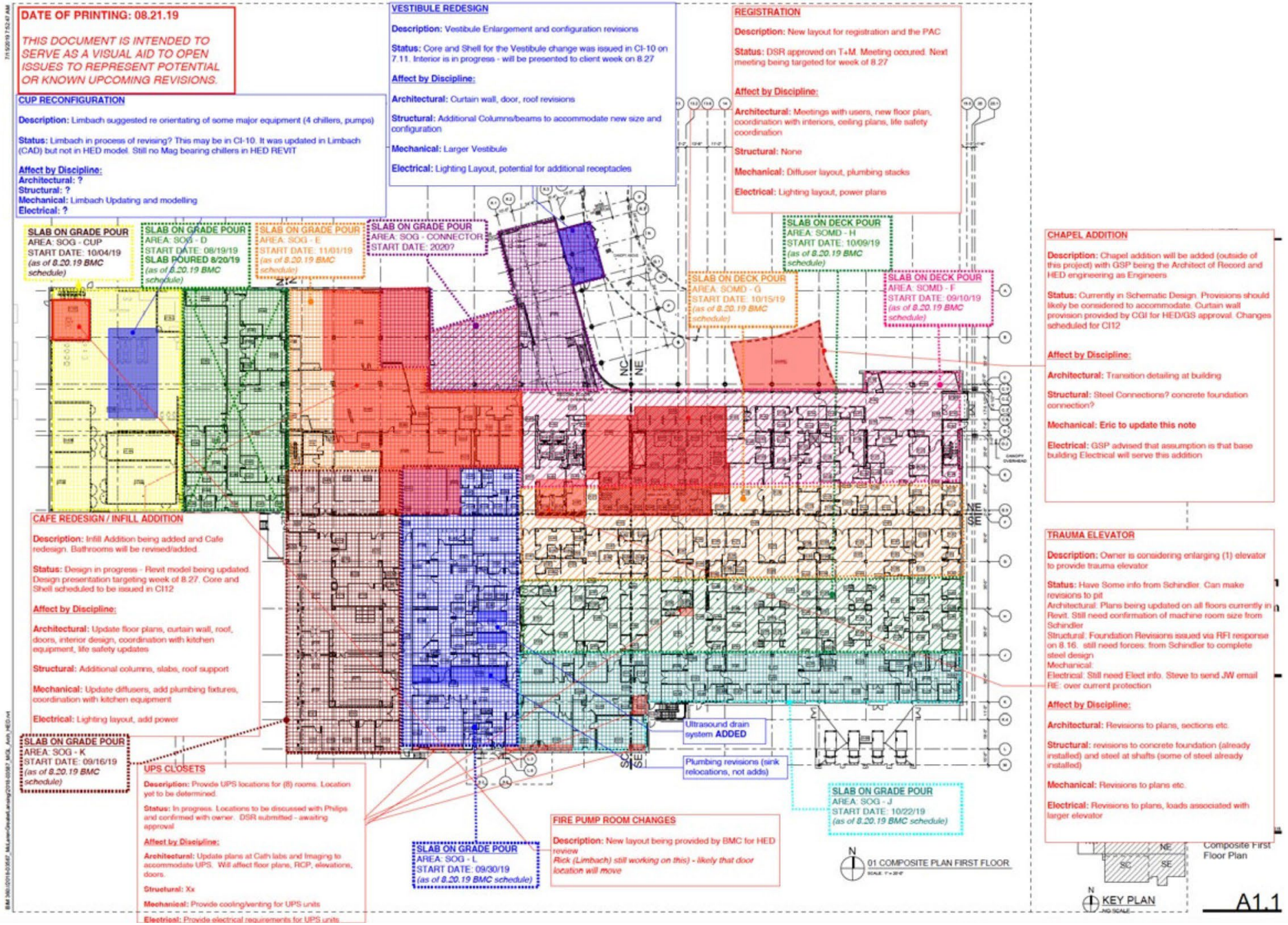
TRUST

Question 1	4.05	4.30	We have a sharing relationship. We can all freely share our ideas, feelings, and hopes.
Question 2	3.89	4.20	I can talk freely to my project team members About difficulties I am having at work and know that they will want to listen
Question 3	3.79	4.15	If I shared my problems with my project team members, I know they would respond constructively and caringly
Question 4	4.16	4.05	I would have to say that we have all made considerable emotional investments in our working relationships
Question 5	4.68	4.55	Project team members approach this project with professionalism and dedication?
Question 6	4.42	4.45	Given my project team members' track records I see no reason to doubt their competence and preparation for the project
Question 7	4.16	3.95	I can rely on project team members not to make our project more difficult by careless work

PREFABRICATION

MITIGATING IMPACT + PRIORITIZING AGILITY

DESIGN CHANGE MANAGEMENT



LESSONS LEARNED

PLUS

Design-Build Approach

Not a forced marriage between parties

Accountability +collaboration

No egos

Everyone had a voice that counted

Takt's early emergence +utilization

Embraced staff modifications on a team and leadership level

DELTA

Traditional model of Executives

wasn't what the project needed. The project required a doer model with active engagement throughout the project lifecycle

Alignment of cost management between A/Es and construction team

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EXECUTING THIS ON YOUR FUTURE PROGRAM

- This program was unique but the processes implemented were the benchmark against.
- Focus on the team's culture
- Be deliberate about the people engaged +what role they fulfill
- A high-functioning team is dependent on the Owner
- It's not enough to just want it...you need to believe it!

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Q+A

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