SUFFOLK WAS SELECTED TO BE A PART OF THE MAB TEAM IN DECEMBER 2009 FOR THE FOLLOWING PRECONSTRUCTION SERVICES:

Project Budgeting
Throughout the design phase Suffolk provided continuous estimating services to help the team identify and resolve budget concerns.

Project Planning
Developed site logistic plans and project schedules to achieve construction flow that achieved key milestones, enhanced project quality, ensured safety, and maintained value for UMBA.

Value Engineering
Examined alternative methods to accomplish project components to achieve best value while maintaining the program's design intent.

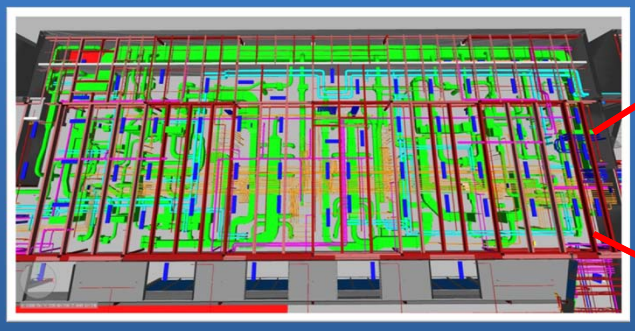
UNIQUE CHALLENGES OF THIS PROJECT:

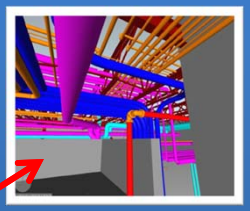
- Working with UMBA (University of Massachusetts Building Authority)
  - *Following the 149A bid procurement process*
  - *149A constraints when bids exceed budget*
- Developing a design that is not user specific, but requires flexibility for multiple user types
- Working with tight budget constraints and identifying value saving opportunities without compromising quality or final program intent
- Changes in design throughout construction

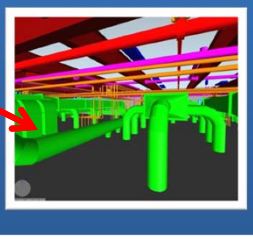
TOOLS USED TO MINIMIZE COST AND TIME:

Building Information Modeling (BIM)

3D Modeling of the Interstitial Space to ensure all systems fit

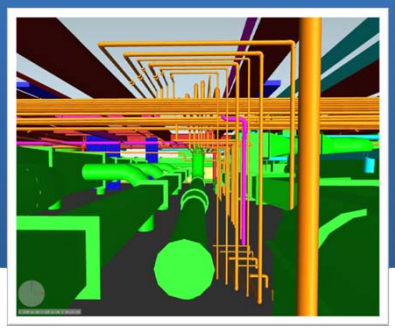






Benefits of BIM for Coordination and Installation of Interstitial MEPs:

- ✓ *Detailed modeling to identify conflict between architectural and MEPs in 3D view*
- ✓ *Easier coordination and modifications related to design changes*
- ✓ *Accurate 3D As-Built for future modifications to system changes as usage evolves*



TOOLS USED TO MINIMIZE COST AND TIME:

Lean Practices

Utilized Pull Planning to optimize construction of the interstitial space

Subcontractor Collaboration

Partnered with subcontractors to streamline design change process

DELIVERY OF PROJECT, KEEPING UMBA'S MISSION AT THE FOREFRONT:

✓ **LEED®**

Achieving UMBA's goals of LEED® Certification for the facility (40 – 49 points)

- *Achieved **41 points to date** across every LEED® category: Sustainable Site, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, Innovation in Design, and Regional Priority*
- *Have **8 points in-progress** for a total of 49 points*
- ***Indoor Environmental Quality**, with 14 out of 15 points (1 point still pending), is the project's highest performing category*
- *The LEED® process represents a tremendous team effort as this was a complex, cGMP design*

Indoor Environmental Quality: Highest Performing Category

Yes	?	No			
13	1		INDOOR ENVIRONMENTAL QUALITY		15 Points
Y			Prereq 1	Minimum Indoor Air Quality Performance	Required
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	Required
1			Credit 1	Outdoor Air Delivery Monitoring	1
1			Credit 2	Increased Ventilation	1
1			Credit 3.1	Construction Indoor Air Quality Management Plan - During Construction	1
1			Credit 3.2	Construction Indoor Air Quality Management Plan - Before Occupancy	1
1			Credit 4.1	Low-Emitting Materials - Adhesives and Sealants	1
1			Credit 4.2	Low-Emitting Materials - Paints and Coatings	1
1			Credit 4.3	Low-Emitting Materials - Flooring Systems	1
1			Credit 4.4	Low-Emitting Materials - Composite Wood and Agrifiber Products	1
1			Credit 5	Indoor Chemical and Pollutant Source Control	1
1			Credit 6.1	Controllability of Systems - Lighting	1
			Credit 6.2	Controllability of Systems - Thermal Comfort	1
1			Credit 7.1	Thermal Comfort - Design	1
1			Credit 7.2	Thermal Comfort - Verification	1
	1		Credit 8.1	Daylight and Views - Daylight	1
1			Credit 8.2	Daylight and Views - Views	1

DELIVERY OF PROJECT, KEEPING UMBA'S MISSION AT THE FOREFRONT:

✓ **DIVERSITY TRACKING**

Worked with UMBA to achieve all workforce participation goals and manpower compliance through an extensive subcontractor outreach program.

Classification	GOAL	ACTUAL
MBE/WBE	10.4%	**15.6%**