

# MSBA RoundTable Lessons Learned

Case Study: Sterling / SOUTH~WEST Middle School

Quincy

30 May 2019

City of Quincy - Public Buildings Dept. and Quincy Public Schools

PCA360 - Owner's Project Manager

Ai3 architects

Bond Brothers Construction

# Agenda

- ▶ Intro of today's team
- ▶ Role of Facilities Director at Early Phases of Project
- ▶ Use of Proprietary Items
- ▶ Commissioning coordination
- ▶ Training of Maintenance Staff
- ▶ Schedule Issues
- ▶ Questions and Discussion

# Project Team

- ▶ Massachusetts School Building Authority
- ▶ City of Quincy - Public Buildings Dept.; Paul J. Hines; Commissioner
- ▶ Quincy Public Schools; Dr. Richard DeCristofaro, Superintendent of Schools
- ▶ PCA360; Owner's Project Manager; Brian Laroche, Principal
- ▶ Ai3 architects; Scott Dunlap, Principal Architect
- ▶ Bond Brothers Construction, David Capaldo, Project Manager on Site
- ▶ SMMA, Commissioning Agent

# Team Talking Today

- ▶ Gary Cunniff; Director of Engineering,  
City of Quincy, Public Buildings Dept.
- ▶ Walter Macdonald; Director of Facilities Maintenance,  
City of Quincy, Public Buildings Dept.
- ▶ David Scott; Mechanical Engineer / Energy Technician,  
City of Quincy, Public Buildings Dept.
- ▶ Paul Hines; Commissioner of Public Buildings and a Lawyer
- ▶ David Capaldo; On-Site Project Manager  
Bond Brothers Construction

# Setting the Stage - Early Phases

- ▶ **Focus on TEAM approach;**
  - ▶ Partnership with MSBA to determine need
  - ▶ OPM and Architect qualifications / proposals reviewed
  - ▶ Architectural team meetings with school staff to envision academic environment
  - ▶ General Contractor enters the scene
  - ▶ Extensive reviews of progress plans
  - ▶ Time to apply lessons learned from previous projects

# Facilities Director

- ▶ Not a one-man-band
  - ▶ Facilities director coordinates the team approach
    - ▶ Facilities director or their designated appointee, appropriate staff and the OPM participated in the following:
      - ▶ Meetings with Architect and Quincy School Staff
      - ▶ Meetings with Architect (and their consultants) and the Contractor
      - ▶ Review independent cost estimates and budget
      - ▶ “Value Engineering” exercise
      - ▶ Coordination of the design reviews with entire team plus other City departments (Inspectional Services, DPW, Fire Dept.)

# Proprietary Items

- ▶ Try to avoid *proprietary items* due to future costs and constraints in servicing... QHS boilers, Security system, Fire Alarm panels
- ▶ Products and equipment the City may desire for standardization
- ▶ Boilers
- ▶ Fire Alarm system
- ▶ Building HVAC CONTROLS
- ▶ Coordination with City Purchasing Dept. to comply with State regulations and receive the equipment desired.

# Commissioning Agent

- ▶ Based on past experience with projects
- ▶ Quincy High School case study in retro-commissioning
- ▶ Central Middle School case study
- ▶ Sterling Middle School 100% commissioning
  - ▶ Above and beyond MSBA requirements
  - ▶ Extra effort with our staff and CxA
  - ▶ Tracking results and coordination with Contractor and punchlist



# Training Schedule

- ▶ Extensive training per system
- ▶ Coordination with City's maintenance crew and custodial staff
- ▶ Complexity of building's systems
- ▶ City has designated an area in the school for accessible storage of plans, specifications, as-builts, O&M manuals, training videos with plan table, drawing racks, computer.

# Schedule Issues

- ▶ Pro-active approach by Bond Bros.
- ▶ Schedule “buy-in” with sub-contractors
- ▶ Judicious use of money to keep sub-contractors on schedule
- ▶ Always having alternative contingency plans
  - ▶ Examples (bldg.envelope review, LEED consultant, ground thaw mats, expenditure of OT for subs to keep pace)
- ▶ Frequent schedule tracking and reviews with OPM and City
- ▶ N-Grid lock-out was biggest threat to schedule

# Near the end

- ▶ Project has achieved substantial completion (May 20, 2019)
- ▶ Project is opening slightly late due to utility company work lock-out
- ▶ Project is within budget
  
- ▶ City has highly trained maintenance staff
- ▶ City has many on-going maintenance service contracts
- ▶ City is in the process of additional service contracts
- ▶ City makes a serious commitment to maintaining the facility per recommendations and per our agreement with the MSBA

# THANK YOU

- ▶ Thanks to MSBA for their commitment to Quincy
- ▶ Thanks to the project team; PCA360, Ai3 and Bond Bros.
- ▶ Thank you all for listening
  
- ▶ We are pleased to answer any questions or clarify as best we can any aspect of the projects presented.



## Retaining wall foundation and excavation behind current school



## Excavation and underpinning of existing school

MSBA RoundTable Lessons Learned - Sterling / South-West Middle Sch., Quincy

