# 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

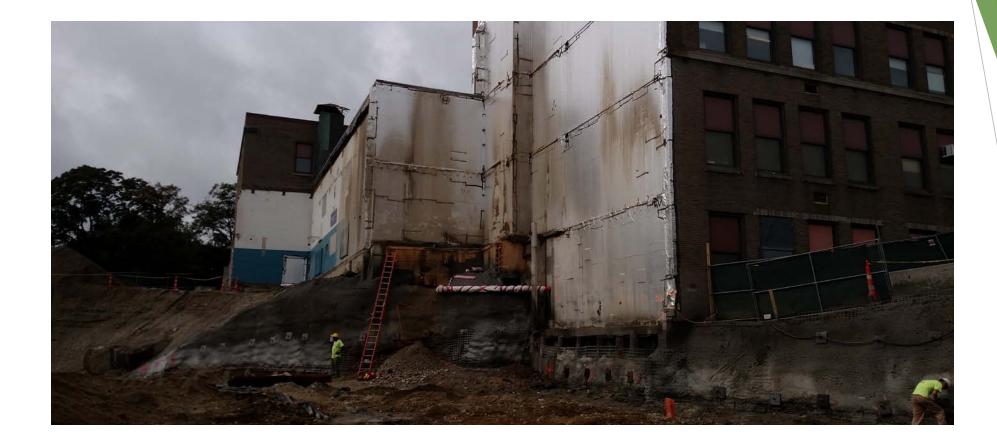
- Project has achieved substantial completion (May 20, 2019)
- Project is opening slightly late due to utility company work lock-out
- Project is within budget
- City has highly trained maintenance staff
- City has many on-going maintenance service contracts
- City is in the process of additional service 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