Beyond Bricks & Mortar: Critical Tools to Implement Efficient Project Delivery and Insights on What to Expect as you Maneuver through Permits/Financing/Landmark/Budgetary and Time Constraints

Thursday, May 4, 2017    Mohonk Mountain House
Introductions
Introductions

Eugene Torone, DBIA
President
S/L/A/M Construction Services

Richard Bernero
Chief Financial Officer
Metropolitan Montessori School
SLAM is an integrated design-build firm. SLAM places emphasis on the role of an architect in the design and functionality of a building, factoring in the client’s needs, quality of materials and performance in the life of a building.

SLAM EST. 1986
SLAM CS EST. 1996

4 OFFICES
Glastonbury, Boston, Atlanta, Syracuse

ARCHITECTURE, CONSTRUCTION SERVICE, PLANNING, INTERIOR DESIGN, STRUCTURAL ENGINEERING, LANDSCAPE ARCHITECTURE

66 DESIGN-BUILD PROJECTS
70 CM PROJECTS
14 OWNER’S REP PROJECTS

190 EMPLOYEES

IN-HOUSE DESIGNATED DESIGN-BUILD PROFESSIONAL (DBIA™)
1 of only 10 in Connecticut

78% REPEAT CLIENTELE
Metropolitan Montessori School (MMS)

MMS is a Pre-K to grade 6 NYC independent school dedicated to providing an enriching and challenging educational environment where each child encouraged to grow to their fullest potential academically, emotionally, and socially. Through the dynamic partnership of child, parent, and teacher, a consistent Montessori framework for learning is developed, offering “An Education for Life.”

- **MMS EST. 1965**
- **<50 EMPLOYEES**
- **195 STUDENTS, AVERAGE of 3 STUDENTS PER FAMILY**
- **$6 MILLION OPERATING BUDGET**
- **$12 MILLION DOLLAR PROJECT 2016-2017**
- **18 MONTH DURATION**
- **50% INCREASE IN CAMPUS SPACE**
- **6 COMMUNITY, REGULATORY, AND AGENCY APPROVAL STEPS (CB7, Landmark Conservancy, NYC DOB, FDNY, NYEDC, Lender)**
- **3 ACCREDITATION ORGANIZATIONS NAIS, NYSAIS, AMS**
Learning Objectives

1. Manage expectations – setting manageable goals with limited funds
2. Designing a project approach
3. Choose the best delivery method
4. Select the right team(s)
5. Avoid common pitfalls
Manage Expectations – Setting Manageable Goals with Limited Funds

How early do you want to know if you can afford this...

Or that...
Manage Expectations – Setting Manageable Goals with Limited Funds

**INTERNAL PLANNING**
- Create organizational structure for decisions
- Knowing expertise of school’s in-house staff
- Talk to the experts *early* when setting goals (i.e. end date)
- Knowing when to hire outside expertise
- Create a master plan

**FUNDING**
- General consensus of project needs
  - Needs, wants, wishes
- Funding source and timing
- Funding limitations and restrictions
- Avoiding sticker shock

**TIMETABLE FOR ACHIEVING GOALS**
- Allow enough time to achieve goals
- Allow for a time contingency

**TEAM EFFORT – PARTNERSHIP & COMMUNICATION**
- Aligned interests between Owner’s Rep., School, Architect & CM
- Transparency and frequency of reporting
- Update to board
- Subcommittee making decision → report back to board
  - Conduit for team to get process happening
Designing a Project Approach
Designing an Approach

FACTORS TO CONSIDER:
• Owner **should not** dictate means and methods
• Understanding of design and regulatory timetables
• Permits and approvals
• Project constraints and restrictions:
  • Availability of swing space
  • Capacity of infrastructure
  • Timing
  • Environmental (HazMat)

DESIGNING THE APPROACH:
• Requirements for enabling projects
  • Swing space
  • Utility infrastructure upgrades and relocations
  • Phasing options
• Timing of the bidding

DESIGNING A TIMELINE
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**SUMMER BREAK**

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- **SUMMER BREAK**: 8/25
- **PROBABLE OCCUPANCY**: 9/30
- **DESIRED OCCUPANCY**: 9/30

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1. **Programming**: January
2. **Enviro Geotech**: March
3. **Design**: March - May
4. **Budgeting & Zoning**: March - May
5. **Permitting**: April
6. **Bidding**: May - June
7. **Mobilization**: June - July
8. **Construction**: July - September
9. **Occupancy**: September - October

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**Note**: Actual progression and milestones may differ from the planned timeline due to various factors such as unforeseen delays, changes in project scope, or resource availability.
Timing of Construction

- **BEST**
- **WORST**

- **DEAD ZONE**
  (ALL SCHOOL WORK)

- **RENOVATION**
- **NEW CONSTRUCTION**
Timing of the Bidding

*Trade Cost vs. Subcontractor Availability*

- **Greater**
- **Less**

**Dead Zone**
(All School Work)

- **Jan**
- **Feb**
- **Mar**
- **Apr**
- **May**
- **Jun**
- **Jul**
- **Aug**
- **Sept**
- **Oct**
- **Nov**
- **Dec**

**Legend**
- **COST**
- **SUB AVAILABILITY**
Choosing the Right Project Delivery Methods
GENERAL CONTRACTOR

The client retains a design professional to provide all required design services required for the project, and retains separately the services of a contractor to provide all construction services, for a lump sum price, required for the project.

CMa: CONSTRUCTION MANAGER AS ADVISOR

The owner hires a construction manager to act as an independent advisor on pre-construction & construction management through the course of both design and construction without any liability for cost and schedule. The owner contracts directly with multiple primes but coordinated through the CMa.

CMc WITH GMP (CMAR): CONSTRUCTION MANAGER

Same as CMc, but contract includes provisions for a Guaranteed Maximum Price (GMP). Contingencies are usually under the control of the CM.

DESIGN-BUILD

A single source delivery for both design and construction, where an A/E professional or CM is directly responsible for both the total project design and construction of the project.
Project Delivery Methods

**DESIGN-BID-BUILD (GC)**

- PLANNING
- ARCHITECTURE/ENGINEERING
- BID
- CONSTRUCTION

**CONSTRUCTION MANAGEMENT**

- PLANNING
- ARCHITECTURE/ENGINEERING
- BID INDIVIDUAL TRADE PACKAGES
- PRE-CONSTRUCTION
- CONSTRUCTION

**DESIGN-BUILD**

- PLANNING
- ARCHITECTURE/ENGINEERING
- BID INDIVIDUAL TRADE PACKAGES
- PRE-CONSTRUCTION
- CONSTRUCTION

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Select the Right Teams
Owner’s Checklist

**Trust and Relationship**
- History of successful projects & professional working relationship with Owner
- Corporate cultures aligned

**Project Delivery Experience**
- Has the architect ever performed using the desired delivery method?
- Has the contractor ever performed using the desired delivery method?

**Project Type**
- Experience designing & constructing similar projects
- Relevant experience not necessarily top priority (based on project sophistication & complexity)
- Other parameters: Multi-phase, Renovation vs. New, Urban, Historical
- Ask the right questions
Owner’s Checklist

**Team Compatibility & Experience**

- Has the contractor and architectural firms ever worked together before?
- Have the key team members successfully worked together before?
- Strength of individual team members
  - Proposed staffing

**Examples**

- **Project A** -
  - Highly qualified firm
  - Underqualified Superintendent to run complex renovation

- **Project B** -
  - Low bidder
  - Proposed staffing would have been detrimental to the success of project
Avoid Common Pitfalls
Avoid Common Pitfalls

• “While we’re at it...”
• Contingency
  • Why carry it?
  • How much to carry?
  • “Are we really going to use all of it?”
• “Ready-Fire-Aim”
  • Regulatory & local sign-offs
  • Awareness of union or non-union labor
  • Funding & financing
• Leadership
  • Overly involved board members
  • Donor or Owner dictating means & methods
  • Key Point of Contact
    • School staff volunteer capable of dedicating time needed to manage responsibilities?
    • Not following advice of experts
• Indecisiveness
Case Study: Kent School, Music Dept & Mattison Auditorium

- Design-build renovation and connection of two adjacent buildings, totaling 25,000 SF, located on the Kent School campus in Kent, CT
- Final Auditorium space seats 350
- Completed on schedule
- Construction Start: March 4, 2013
- Project Completion: February 28, 2014
- Final Contract Amount: $6,309,100*
  *Included additional owner added expenses
Case Study: Kent School, Music Dept & Mattison Auditorium

**Project Challenges:**
- Keep existing heating plant and electrical services *operational*
- Keep mail and food services area *accessible*
- Provide safe student access
- Keep current *music & dining space operational*
- Minimize downtime of auditorium
- Limited parking/staging area
- Converting *1930s double loaded corridor dorm* into acoustic music and practice space
- Install a new *18’ deep elevator shaft* between two (2) buildings
Case Study: Kent School, Music Dept & Mattison Auditorium

Auditorium Catwalk
Case Study: Kent School, Music Dept & Mattison Auditorium

Elevator Shaft
Case Study: Kent School, Music Dept & Mattison Auditorium

Large Ensemble Room
# Case Study: Kent School, Music Dept & Mattison Auditorium - Schedule

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### KEY DATES

- **3/04/13**: Enabling Const. Starts
- **PROJECT COMPLETE**
Case Study: Metropolitan Montessori School
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