# BELMONT HIGH SCHOOL

BELMONT, MA

# OWNER'S PROJECT MANAGER INTERVIEW



# The **MAEDALUS** Profile & Commitment



Thomas Gatzunis

Shane Nolan

LEED GA, MCPPO

Joe Sullivan, MCPPO

25+ Years of Experience

Project Manager

Alicia Monks AIA, LEED AP, MCPPO

Project Manager

20+ Years of Experience

P.E., C.B.O., MCPPO

Senior Project Manager

30+ Years of Experience

Delwyn Williamson Cost Estimating Manager 30+ Years of Experience



Charles Whitman Mechanical Cost Estimator 35+ Years of Experience



Paul French Electrical Cost Estimator 25+ Years of Experience



Chapman Deng Cost Estimator 15+ Years of Experience



Elda Osmann Cost Estimator 10+ Years of Experience



Daedalus Projects, Inc. employs fourteen (14) highly-qualified site reps:

Richard Marks, MCPPC

President/Project Director 30+ Years of experience

Ronald Caggiano 30+ Years of Experience MA CSL # 065848 OSHA 30-hr

John Christiansen 45+ Years of Experience OSHA 30-hr

Anthony DelGreco 15+ Years of Experience Jonathan DePina 37+ Years of Experience OSHA 30-hr

John Feeley 25+ Years of Experience OSHA 10-hr & 30-hr HAZWOPER 40-hr USACE CQMC Certificate

Mike Flaherty 7+ Years of Experience OSHA 30-hr

Mark LaFleur 30+ Years of Experience MA CSL # 074564 OSHA 30-hr

John Lebica 20+ Years of Experience OSHA 10-hr

Larry McDonough 25+ Years of Experie OSHA 10-hr

Tony Oliveira 6+ Years of Experience OSHA 10-hr & 30-hr

William Roche 35+ Years of Experi MA CSL # 051766 OSHA 30-hr Firestopping 8-hr

Rob St Laurent 25+ Years of Experience MA CSL # 103730 OSHA 10-hr EPA Lead Safe Training Program

Peter Zychowicz 35+ Years of Experience MA CSL # 044681



Christina Opper, MCPPO Sidni Bragg Project Administration / Manager, Marketing Client & Community Relations Project Controls Specialist 15+ Years of Experience 10+ Years of Experience





Tieshia.Jarrett Project Administration / Marketing, Communications, Project Controls Specialist & Public Relations Coordinator < 1 Year of Experience



Archie Adams Assistant Project Manager 1+ Year of Experience

#### **FIRM ORGANIZATION:**

- 29 full-time employees
- **5** Project Managers
- 5 Cost Estimators
- 3 Assistant Project Managers
- **13 Project Representatives**

#### **FAMILIARITY WITH AND COMMITMENT TO BELMONT:**

Project Director Tom Gatzunis worked with the Town of Belmont for 21+ years. As Town Engineer and Building Commissioner, he became well-versed in the history and challenges of the High School building and site and developed strong working relationships with town and school officials.



Erin Leddy



# Why **WAEDALUS**?







# **EXPERIENCE:**

- More than 20 years of experience with the MSBA and Public School Projects
- Oversaw successful construction of the Chenery Middle School

# VALUE ADD / TEAM DEPTH:

- In-house Cost Estimating
- Project Controls Specialist
- Engineering & Code Review
- Architectural & Sustainable Design Review
- Dedicated "on-site" Project
   Representative during construction
- Additional Project Management support





**Richard Marks, MCPPO** President / Project Executive 30+ Years of Experience DAEDALUS



Thomas Gatzunis, P.E., C.B.O., MCPPO **Project Director** 30+ Years of Experience AEDALUS



Shane Nolan Senior Project Manager 20+ Years of Experience AEDALUS



Alicia MK Monks, AIA, LEED AP **Design & Sustainability Review** 20+ Years of Experience DAEDALUS



Delwyn Williamson Cost Estimating Manager 30+ Years of Experience AEDALUS



Sidni Bragg **Project Controls Specialist** 10+ Years of Experience AEDALUS



Archie Adams Assistant Project Manager 2+ Years of Experience





Matt Jackson **BIM Consultant** 20+ Years of Experience **my**CADD





#### **EDUCATION:**

B.S., University of Massachusetts Lowell, 1983

#### **CERTIFICATIONS:**

MA Professional Engineer (#33993)

Certified Building Official (#0699)

MA Licensed Construction Supervisor (#040611)

Massachusetts Certified Public Purchasing Official (MCPPO)

OSHA 30-Hour Construction Training

#### **EXPERIENCE:**

- 30+ years of experience in the construction industry
- Served as Senior Engineer, Assistant Town Engineer, Engineering Services Supervisor, Town Engineer, and Building Commissioner of Belmont between 1983-2004
- Former Commissioner of Public Safety for the Commonwealth of Massachusetts

#### **PROJECTS OF NOTE:**

- Winn Brook Elementary School; Belmont, MA\*\*
- Chenery Middle School; Belmont, MA\*\*
- Richer Elementary School; Marlborough, MA
- Belmont Fire Stations repairs; Belmont, MA

\*\*while employed as Town Engineer & Building Commissioner for the Town of Belmont

# **Belmont High School**







#### **PRIORITIES:**

- Elimination of district overcrowding issues
  - Enrollment increase of 117 high school students over the past 5 years
  - Projected increase of additional 408 students district-wide by 2019
- Determine grade configuration that would best serve the needs of the District
  - 9-12
  - 8-12
  - **7-12**
- School facility systems
  - Replacement, renovation, or modernization options
  - Increase energy conservation and decrease energy-related costs
- Replace or supplement obsolete facilities to provide a full range of programs consistent with state and local requirements

# **Belmont High School**





# **KEY OBJECTIVES:**

- Develop cost effective solution to improve educational facilities
- Work with Architect, the Permanent Building Committee and the High School Building Committee to develop best solution
- Reduce environmental impact
- Limit expansion on site & reconfiguration of outdoor athletic spaces
- Address phasing & occupied construction
- Address district-wide enrollment issues
- Identify and address milestone requirements:
  - Debt exclusion vote
  - Swing space
  - Occupancy issues
- Life-cycle costs / operational budgets
- Determine best method to procure construction (CM-R)

## Experience: High Schools & MSBA-funded projects







#### Dearborn STEM 6-12 / Early College Academy; Boston, MA

- **\$60,245,000**
- 126,000 SF new construction
- Construction Manager at Risk (c. 149A)
- Demolition of the existing building and new construction of the Commonwealth's first new, dedicated STEM school
- Extensive community engagement

#### Leominster High School Leominster, MA

- \$44,403,080
- Construction Manager at Risk (c. 149A)
- Phased / Occupied renovations to 282,343
   GSF of the existing building
- New construction of a 14,000 SF science labs addition
- All new MEP systems
- Constructed 24 temporary classrooms for swing space

## Experience: High Schools & MSBA-funded projects







#### Franklin High School Franklin, MA

- **\$101,851,315**
- 306,543 GSF new construction
- Featuring a "Model" high school design plan
- LEED Silver Certified
- Completed on time and <u>UNDER</u> budget

#### John W. Rogers Middle School & Rockland High School Rockland, MA



- \$82,223,198
- 162,281 SF renovation to existing high school + 115,931 SF new middle school (attached)
- Phased / Occupied site
- Construction Manager at Risk (c. 149A)
- LEED Gold Certified
- Completed on time and <u>UNDER</u> budget



# Experience: Other Public Schools & MSBA-funded projects







#### Higgins Middle School Peabody, MA

- \$86,632,318
- 230,000 GSF new construction
- New construction on existing playfields, adjacent to occupied school
- Extensive community involvement
- Anticipating LEED Silver certification
- Completed on time and <u>5% UNDER</u> budget

#### Scituate Middle School Scituate, MA

- \$69,433,231
- 132,915 SF new middle school, 22,660 SF auditorium & connection to existing High School
- Phased / Occupied site
- Anticipating LEED-S v4
- Anticipated completion Summer 2017, currently <u>UNDER</u> budget

## **Cost Estimating**



DESCRIPTION			TOTAL	COST/SF
Sitework Cost			\$2,702,225	\$65.21
Building Trade Cost		35,303 GSF	\$11,364,690	\$274.25
Auxilary Building		6,137 GSF	\$1,075,203	\$175.21
Allow for Phasing			Included	
Trade Cost Subtotal			\$15,142,118	\$365.40
Design Contingency	2.00%		\$302,842	\$7.31
Trade Cost Total			\$15,444,960	\$372.71
Mark-ups (on Direct Trade Costs Subtotal)				
General Conditions and Requirements		\$15,444,960	\$2,256,520	\$54.45
Insurance		\$17,701,480	\$19,308	\$0.47
SDI (Non-Trade Contracts)		\$17,720,788	\$144,393	\$3.48
Bonds		\$17,865,181	\$144,812	\$3.49
Permit		\$18,009,993		
Fee	2.25%	\$18,009,993	\$405,225	\$9.78
Estimate Construction Cost Subtotal			\$18,415,218	\$444.39
CM Contingency	2.50%	\$15,444,960	\$386,124	\$9.32
Escalation	0.50%	\$15,831,084	\$79,155	\$1.91
ECC Total			\$18,880,498	\$455.62
Alternates Alternate #1: Provide Additional 1,540 Square Feet of Auxila Alternate #2: Provide Additional Office and Plumbing Facilitie	y Building Storage s	Building	\$281,000 \$352,000	

10 11	Considiut 02	Provide sealed concrete in Garage Bays in Lieu of annov	\$80.067	Encryvis a neemil in finish 1 sine sealed concrete at
in the	consignation.	Louis State cartes a carde cab article or theil	30 (30)	New Medfield Public Safety Apparatus Hays
AL 112	Consigli # 03a	Provide vinyl alle in lieu of rubber tile	542,197	Rubber floor is a premium Thish product over vinyl- tile
AM #3	Consigli # 11	Reduce locker scope by 23%	541,938	Total number of lockers male $+74$ , ferrale $+12 = 85$ tradi. Alternate could be fair 8 lockers at north wall in men's locker room: and 4 lockers on north wall of lemale locker room. Can be retro fitted 1 stall requirements increase in future years
AK 164	Consigli #25	Provide impact resistant GWB in lieu of high impact wall covering	\$12,305	Premium linish. DPI used impact resistant GWB at Whitman Police, Monson Police (NBA project) and Solutate Police.
		Total Recommended Alternates	\$180,502	
Recomm	mended VE Item	5		
/E A1	Consigli# 04b	Delete wall paneling in EOC	\$9,711	Premium finish product
fΕ //2	Consigli # 05%	Provide Trespa in lieu of metal panels	522,504	Alternate product of h similar performance qualities
FE AB	Consigli≢ 15a	Provide floor crains in lieu of trench rains in Bays - Building A $\& B$	\$21,790	Alternate product with similar performance qualities
/E A4	Consigli # 15b	Provide floor crains in lieu of trench rains in Bays - Building C	516,343	Alternate product with similar performance qualities
FE NS	Consigli # 15	Resuce security cameras by 25%	\$13,948	Recongiure and eliminate 2 cameras in Main Lobby, eleminate camera in fitness room, eliminate 5 cameras in Apparatus Mays, eliminate enterior camera Building C, eliminate esterior camera NW orner Building C
/EAS	Consigli#21	Provide concrete sidewalks in lieu of pavers	\$7,768	Promium finish product
/E //S	Consigli # 28	Provide key pads only in lieu of card readens/key pac combination	\$65,371	Colorc inste preference with Police and Fire Departments, may not get full saving licted.
		Total Recommended Value Engineering Items	\$157,534	

#### **CONCEPTUAL DESIGN PHASE:**

- Estimate construction cost of all options
- Align costs, design, and program
- Work with District and Ed Planner to develop best educational approach
- Assess phasing costs and impact on education

#### **DESIGN MILESTONES:**

- Detailed cost estimates at each milestone
- Include mark-ups, contingencies, and escalation
- Change Order review and verification during construction

## **MSBA** Process and Controls





Massachusetts School Building Authority Funding Affordable, Sustainable, and Efficient Schools in Partnership with Local Communities

Module 3 F	Appendix 3 easibility Study C	3F ompletion	Check	list			
Submittal		Submittal	Date	Review comments addressed			
3.1 Preliminary Design Progr	am						
3.1.7 Local Actions and Appr	oval Certification			1	N/A		
3.3.2 Preferred Schematic Re	port						
3.3.2.9 Local Actions and Ap	proval Certification			1	N/A		
3.4.1 Conference Call 3.4.2 Eacilities Accessment St	abcommittae						
Meeting	abcommuce						
3.4.3 MSBA Board approval		N/A					
3.5 MSBA Board Action Lett approval of authorization to p schematic design	er	Module 4	Schem	Append natic Desi	<b>lix 4H</b> gn Completior	n Checkl	ist
Presigning this Eassibility		Submittal			Submittal Date		Date Review Comments Addressed
Study Completion	4.1.1 DESE Sub	mittal					
Checklist, I hereby certify	4.1.2 - 4.1.4 Sch	4.1.2 - 4.1.4 Schematic Design Submittal					
that I have read and	1 4.1.5 - Local Ap	provals					N/A
understand the checklist and	t 4.2.1 MSBA Staff Review Comments						
further certify that the	f 4.2.2 Facilities Assessment Subcommittee						
District in the table share is	1 4.2.3 Project Scope and Budget Conference					N/A	
true, accurate, and	4.2.4 District signed Project Scope and						
complete.	Budget Agreement						
	4.3 MSBA Board approval					N/A	
	4.3 MSBA Board	4.3 MSBA Board Action Letter denoting			N/A		N/A
By:	1 approval of autho	orization to p	roceed	to			
Titles Chief Executive	schematic design						
Officer	By signing this S	chematic	By sig	ping this	Schematic	By sig	ning this Schematic
Date:	1 Design Checklist, I hereby certify that I have read and understand the checklist and further certify that the information supplied by the District in the tables is true, accurate and complete.		Design Checklist, I hereby certify that I have read and understand the checklist and further certify that the information supplied by the District in the tables is true, accurate and complete.		Design Checklist, I hereby certify that I have read and understand the checklist and further certify that the information supplied by the District in the tables is true, accurate and complete.		
	By:	By:				By:	
	Title: Chief Exe Officer	cutive	Title: Superint Schools		perintendent of Tit Co		le: Chair of the School mmittee
	Date:		Date:			Date:	



#### **FEASIBILITY STUDY SUBMISSIONS:**

- Oversee and coordinate submissions
- Detailed constructability review
- Cost comparisons between options

#### **REPORTING:**

- Monthly Reporting to MSBA and Owner;
- Weekly meetings with Design team
- Bi-weekly Building Committee meetings

#### **PAYMENTS:**

MSBA Pro-Pay

# **BIM Services**









# MATT JACKSON, BIM CONSULTANT

- BIM Software Specialist with myCADD since 2005
- Previously worked with large Architectural firm and have trained Architects in BIM Technologies and Processes
- Previously collaborated with Daedalus on MSBA School projects & other public projects

### **BIM TASKS:**

- Oversee development of BIM Execution
   Plan + Initial Laser Scan
- Enforcement & Compliance of BIM Execution Plan throughout Design
- Coordination Checks at Design Milestones
- Visualization, Digital Walkthroughs
- Construction Coordination\Clash Testing

#### **Community Participation**





#### **COMMUNICATIONS & OUTREACH:**

- Develop content to be used on project website and other PR materials
- Public Forums
- Town Meetings
- Digital communications (e.g. Website, Video, Presentations, Social Media)
- Print Communications

   (e.g. Informational Mailers, Newsletters)
- Local Cable & Radio
- Local Newspaper(s)



#### PRIME CONTACT FOR MSBA

**Thomas Gatzunis** 

#### **Daedalus Team: Involvement by Phase**



- Richard Marks, Project Executive
- Shane Nolan, Sr. Project Manager
- Sidni Bragg, Project Controls Specialist
- Matt Jackson, BIM Consultant
- Project Representative

- Tom Gatzunis, Project Director
- Delwyn Williamson, Director of Cost Estimating
- Alicia Monks, Design & Sustainability Review
- Archie Adams, Assistant Project Manager



As OPM, you are the advocate for, and assistant to, the Owner during design and construction. Discuss how you will interact with the design team and contractor during the project relative to addressing the desires of the Owner, and keep the Owner informed on project scope, schedule, and budget. Provide an example from a prior project

#### **ADVOCATE FOR AND ASSIST THE OWNER**

- Control costs while maintaining program
- Work closely with MSBA
- Understand Belmont community and importance of keeping costs in check (experience & familiarity with community)
- Detailed design reviews to ensure adherence to program
- Work closely with school staff to maintain educational quality during construction (keep contractor in check)
- Emphasize life cycle costs
- Daily meetings with Principal and School Facilities to coordinate construction activities on site

#### PROJECT SCOPE, SCHEDULE, AND BUDGET MANAGEMENT

- EXAMPLE: Dearborn 6-12 STEM/Early College Academy
- EXAMPLE: John W. Rogers Middle School & Rockland High School
- EXAMPLE: Franklin High School

#### Q3: Cost Estimator's Performance



Provide a spreadsheet indicating your proposed cost estimator's performance with Chapter 149 and 149A public projects over the last ten years. Information in a spreadsheet form is preferred, noting pre-bid estimate, actual bid amount, and final construction costs. Overall project contingencies should be noted in bulk dollars as well as percentage of estimated construction cost.

#### M.G.L. C. 149A PROJECTS



Pre-Bid Estimate Actual Bid Amount

# Q4: Post-Construction Maintenance & Operations



Modern HVAC and lighting systems often have an overall Building Management System (BMS) or Energy Management System (EMS) controlling them. Frequently when a project is complete, Owners struggle with understanding, operating and maintaining such systems due to their complexity. What is your approach to ensure the Owner can effectively operate these systems after the project is complete?

#### **BUILDING MANAGEMENT & ENERGY MANAGEMENT SYSTEMS**

- Work with facility staff to understand current capabilities
- Ensure systems are user-friendly
- Involve facility staff in design & construction process
- Engage third party reviews of design

#### **OPERATIONS & MAINTENANCE MANUALS AND TRAINING**

- BIM Facilities Management Integration
- Attend training sessions with staff
- Videotape all sessions
- Work with Contractor to have the right trainers
- Don't train until systems are ready
- Require a local manufacturer's representative attend trainings and be available post-training
- Re-evaluate systems after seasonal changes

In an MSBA funded School project such as Belmont High School, please describe the areas in which an OPM provides the greatest value to an Owner. Describe the characteristics of your firm which demonstrate that you can provide the highest level of value for Belmont.

# THE VALUE OF OPM SERVICES

- Owner's advocate
- MSBA liaison
- Cost Control
- Schedule Management
- Constructability Advice
- Ensure Design meets Program Needs
- Check and balance on Architect and Contractor/CM
- Extensive experience with multiple schools

## THE DAEDALUS DIFFERENCE

#### HIGHLY QUALIFIED STAFF:

- MA Registered Engineer & Certified Building Official
- MA Registered Architect
- LEED Professionals
- All staff are MCPPO certified
- In-house Cost Estimating team

#### **PRIOR EXPERIENCE:**

- Project Director has 20+ years of daily interaction with Belmont Community and Officials
- Previous Public School projects in the Town of Belmont and Middlesex County
- Experience with and understanding of MGL c. 149 / 149A processes and procedures
- Comprehensive experience with MSBAfunded projects and MSBA ProPay



Underground Clashes 04-15-2015:



Overview - there are a few spots where piping needs to coordinate w/ foundations.



Example - piping below coming up through col ftg B5.5-BC.



Example - piping through col ftg B6.2-Bk. Also pipe in bracing.

First Floor Clashes 04-15-2015:



Overview - 1st floor steel vs MEPF disciplines. Numerous duct/pipe conflicts w/ columns & framing.



Conflicts at framing lines A4.8, A6.8, AJ.



Ductwork in framing, columns at BB.8 & lines B3 & B5.



Ductwork in column B6-BE, piping in framing and bracing at line B-E.



Ductwork in column B6.2-BL, piping in framing and bracing at line B-L, pipe in pier D6-DA.



Overview - Ceilings vs framing & ductwork.