

CONSTRUCTION MANAGEMENT SERVICES PROPOSAL

submitted to
**State College Area
School District
High School Project**

June 4, 2014

ALEXANDER
A BUTZ FAMILY COMPANY 

TABLE OF CONTENTS

1. Cover Letter
2. Project Team and Structure
3. Separation of Work and Multiple Prime Contracts
4. LEED Experience
5. BIM Experience
6. Site Logistics
7. Value Engineering
8. Change Order Management
9. Project Experience
10. Fee



ALEXANDER BUILDING CONSTRUCTION CO.

2545 NORTH ATHERTON STREET, SUITE 103

STATE COLLEGE, PA 16803

P 814-237-6059

F 814-237-6092

alexanderbuilding.com

June 4, 2014

Mr. Ed Poprik
Director of Physical Plant
State College Area School District
131 West Nittany Avenue
State College, PA 16801

Dear Ed,

As the only Construction Manager that has successful experience working with the State College Area School District, our familiarity with your procedures, preferences and campus is unparalleled, making our team an immediate asset to the High School Expansion and Renovation project.

We are proposing the same team that completed the SCASD elementary schools and high school estimating for this project and have enhanced the team with experts who have done similar high school projects throughout Pennsylvania. Our expertise and the competency of our team will provide the School District with the assurance of a well-run project completed within the approved budget, safely and on time.

These key strengths make us the best fit for your project:

- **Our team has worked together on various projects in the past** and key members of our team completed the SCASD Elementary School Phase 1 project including Scott Miller, Rick Thomas and Scott Matson. Their strong working relationship with each other will be of great value to SCASD.
- **We are local to State College** with an office and staff who have lived and worked in SCASD since 1998. No one has better experience with Centre Region Code nor can get better pricing for this project than our firm due to the volume of work we do in this area. No one is more committed to this project's success.
- **Our High School and School District experience runs deep with 80 completed school district projects** and more than 350 projects for Higher Education institutions. Our team knows how to work on large projects on an occupied campus with an active student body and is experienced at minimizing disruption to the learning experience.
- **Alexander has done previous work with the architect, Crabtree Rohrbaugh and Associates**, which means we already have an established relationship and will immediately bring a collaborative and communicative attitude to the project.
- **Alexander has already proven our commitment to the success of this project** from the work we have already invested in the preparation of the schematic estimate.

As a resident of the State College Area School District, I am extremely proud of the town I call home and have made it one of my personal goals to continue supporting the School District and helping it achieve its plans for growth and success. This has been a long path traveled to date and there is still a lot of hard work ahead of us to bring our students the school they deserve. I will be available to you 24/7 throughout the course of this project. If you have any questions, please do not hesitate to call me at (814) 280-6044.

Sincerely,

ALEXANDER BUILDING CONSTRUCTION CO.



Christopher S. Magent, PhD, LEED AP+
Business Development and Strategic Initiatives Director Butz Family of Companies
General Manager, State College

ORGANIZATION CHART

STATE COLLEGE AREA SCHOOL DISTRICT HIGH SCHOOL EXPANSION AND RENOVATION PROJECT

THE BENEFIT OF WORKING WITH OUR TEAM

With our extensive experience working for K-12 schools, Alexander Building Construction understands the importance of providing a facility that best achieves the client's project goals. Our Senior Project Manager, Project Manager, Superintendent and Estimators will use their prior knowledge of working with State College Area School District to ensure another quality project, and our experienced School District team will be able to provide valuable insight from their past experience across the Commonwealth. Our proposed team has also just completed the estimate for the SCASD High School project.

OWNER



State College Area School District

DESIGN PROFESSIONAL



Crabtree Rohrbaugh and Associates

CONSTRUCTION MANAGER
ALEXANDER

Project Director - Tom Daniels, P.E.

Senior Project Manager
Doug Workman, P.E., LEED® AP BD+C

Senior Estimator - Site & Structure
Chuck Baran

Sr. MEP - Electrical
Ron Zemnick

Sr. MEP - Mechanical & Plumbing
Scott Erney

Estimator - Interior & Finishes
Tim Kay

Project Manager
Scott Miller

Project Engineer / Virtual Const. Coord.
Josh Progar

Project Assistant
Sherry Bietz

Superintendent
Rick Thomas

Sr. MEP Mech. & Plumbing
Scott Erney

Asst. Superintendent
Scott Matson

Safety Director
Darren Rech



THOMAS K. DANIELS, P.E., CCM

PROJECT DIRECTOR

WHY CHOSEN FOR THIS PROJECT:

- 39 years of experience
- Experienced in school district projects and value engineering for cost savings
- Executive level responsibility within Alexander
- Completed 5 LEED projects
- Successfully completed multiple PA High School projects
- Provided estimate for SCASD High School Project
- Experience with team

"I wanted to thank you, Tom and Mike for your immediate response to Dieruff being struck by a tornado. I cannot express enough thanks for your focused response, bringing capacity around the school, and working side by side with everyone to get the school ready for our students, faculty, staff and administration."

Karen Augello, PhD
Allentown School District

EDUCATION

B.S. Civil Engineering,
Lehigh University

B.S. Geological Sciences
Lehigh University

Post-Graduate Studies in
Foundation Engineering, Soils,
Geology and Ocean Engineering
Lehigh University

Registered Professional Engineer, PA
Certified Construction Manager

AFFILIATIONS

National Society of Professional
Engineers – NSPE

Pennsylvania Society of
Professional Engineers – PSPE

American Society of Civil Engineers

American Arbitration Association
(Past Member & Arbitrator)

Construction Management
Association of America (CMAA)
– Member

REFERENCES

Mr. Robert Sperling
Director of Facilities Services
Allentown School District
Allentown, PA
484-765-4980

Mr. Ted Lyons
Allentown Art Museum Board of
Trustees, Allentown, PA
610-844-2582

Mr. Armand Christopher, AIA
USA Architects, Planners & Interior
Designers, Easton, PA
484-559-6000

Mr. Robert Snyder
V.P. for Administration, Finance &
Campus Environment
DeSales University, Center Valley, PA
610-282-1100

RELEVANT EXPERIENCE

State College Area School District, State College, PA

- High School Modernization Estimate. \$90,000,000

Allentown School District, Allentown, PA

- Facilities Improvements - Phase 1. \$140,614,000
 - William Allen High School Renovation & Addition.
LEED Gold Certified
 - Dieruff High School Addition & Renovations.
 - Ramos Elementary School Expansion.
LEED Gold Certified
 - Roosevelt Elementary School Addition & Renovations.
LEED Gold Certified
 - Trexler Middle School Addition & Renovations.
 - South Mountain Middle School Addition & Renovations.
- William Penn School. \$8,800,000

Parkland School District, Allentown, PA

- New Parkland High School. \$102,700,000
- Orefield Middle School Renovations. \$22,650,000
- Ironton Elementary School Addition. \$10,130,000
- Schnecksville Elementary School Addition. \$7,680,000
- Multiple School Renovations. \$17,000,000

Bethlehem Area School District, Bethlehem, PA

- Spring Garden Elementary School Expansion. \$8,448,000
- Freemansburg Elementary School Expansion. \$7,920,000

Whitehall Copley School District, Whitehall, PA

- Additions and Renovations to Whitehall High School. \$17,862,000
- Whitehall Middle School Addition and Renovations. \$4,941,000



DOUGLAS R. WORKMAN, P.E.

LEED® AP BD+C

SENIOR PROJECT MANAGER

WHY CHOSEN FOR THIS PROJECT:

- 23 years of experience collaborating and leading project teams on various renovation projects
- Experience on similar projects: 12 projects within the Lewisville Independent School District in Flower Mound, TX
- Member of Leadership Centre County
- Provided estimate for SCASD High School Project
- Experience with team
- Local to State College, immediate 24/7 availability
- Served on the TEXO / CEFPI Committee/Subcommittee for improvement of K-12 Construction

"Mr. Workman inherited a job that was contentious and conflict-laden; he had extremely unhappy clients. Under his leadership the next two phases were completed under budget and ahead of schedule. He established a positive rapport with the client/owner. I have found him to be conscientious, thorough and uncompromisingly professional. I would recommend him highly for any job."

Quentin S. Burnett, Superintendent
Argyle Independent School District

EDUCATION

B.S., Civil Engineering,
The Pennsylvania State University

LEED® AP BD+C

Florida Registered Professional
Engineer No. 49350

Florida Certified Special Inspector
No. 1117

AFFILIATIONS

Member of the American Society of
Civil Engineers

ASCE Construction Institute

Leadership Centre County 2013

TEXO / CEFPI committee / Sub-
Committee for Improvement of
K-12 Construction

REFERENCES

Mr. Mitch Leiby
Construction Manager
Geisinger Health System
Danville, PA
570-271-6938
mleiby@geisinger.edu

Mr. Guillermo Ramos
Director CIP Construction Services
UT Southwestern Medical Center
Dallas, TX
214-648-3404

Jonathan Alldis
Partner
SHW Group, Inc.
218-473-2400

RELEVANT EXPERIENCE

State College Area School District, State College, PA

- High School Modernization Estimate. \$90,000,000

Argyle Independent School District, Argyle, TX (previous firm)

- New Argyle High School Campus. \$33,220,000

Lewisville Independent School District, Flower Mound, TX (previous firm)

- Elementary School No. 40. \$19,947,000
- Delay Middle School Additions and Renovations. \$18,639,000
- Marcus High School, The Colony High School & Lamar Middle School Mechanical System Upgrades. \$9,374,000
- Flower Mound High School, Lewisville High School, The Colony High School and Hebron High School Stadium Locker Room Additions. \$19,184,000
- McAuliffe Elementary School, BB Owens Elementary School, Bolin Administration Center Mechanical System Upgrades. \$11,990,000

The Pennsylvania State University, University Park, PA

- Old Main Renovations. \$Not disclosed per Owners request
- Beaver Stadium Scoreboard Replacement. \$11,000,000
- Old Main Emergency Operations Center. \$Not disclosed per Owners request

Geisinger Health System, Danville, PA

- Gray's Woods Surgery Center & Parking Deck Ph. II. \$25,077,500
Pending LEED Certification

UT Southwestern Medical Center at Dallas, Dallas, TX

- New University Hospital including ER. \$424,360,000



SCOTT MILLER PROJECT MANAGER

WHY CHOSEN FOR THIS PROJECT:

- 17 years of experience
- Project Manager on the SCASD Grays Woods Elementary School project and the Construction Management Association of America Award-Winning projects at SCASD, Ferguson Township and Mount Nittany Elementary Schools.
- Provided estimate for SCASD High School Project
- Experience with team
- Experience on similar education projects
- Completed 2 LEED projects

"Scott Miller's time management, organization and construction knowledge were critical to managing the details of our project. Throughout the project I communicated many requests, changes and design decisions to Scott ... and I had the confidence that every one of them would be taken care of and tracked. Scott has the capacity to manage a very complex and detailed project while also maintaining oversight of the big picture."

Greg Hayes

Business Banking Representative
Kish Bank

EDUCATION

BAE/Architectural Engineering, The Pennsylvania State University

AFFILIATIONS

Builders Association of Central PA

REFERENCES

Ms. Lorraine Sylvia
VP for Finance and Administrative Services
Pennsylvania Highlands
Community College
Johnstown, PA
814-262-3822

Mr. Ed Poprik
Facilities Director
State College Area School District
State College, PA
814-231-1026

Mr. Gregory Hayes
Business Banking Representative
Kish Bank
State College, PA
814-861-7400



Ferguson Township Elementary School



Mount Nittany Elementary School

RELEVANT EXPERIENCE

State College Area School District, State College, PA

- High School Modernization Estimate. \$90,000,000
- Elementary School Phase I. \$28,535,000
 - Mount Nittany Elementary School.
Pending LEED Certification
 - Ferguson Township Elementary School Addition & Renovations.
**State College Area School District Master Plan
2012 CMAA Project of the Year - Regional
2012 CMAA Project of the Year Honorable Mention- National
Pending LEED Certification**
 - Grays Woods Elementary School Addition.

Richland High School, Johnstown, PA (previous firm)

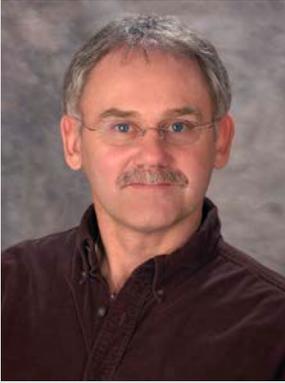
- New high school. \$44,280,000

The Pennsylvania State University, University Park, PA

- Eastview Terrace Housing & Chiller Plant. \$79,755,000 (previous firm)
- Chemistry Building Phase II. \$27,309,000
- HUB Pedestrian Plaza. \$1,767,000
- Chandlee Lab MRI Installation. \$978,000
- Old Main Renovations. \$Not disclosed per owner's request
- Old Main Emergency Operations Center. \$Not disclosed per owner's request

Pennsylvania Highlands Community College, Johnstown, PA (previous firm)

- Renovation of High School into Community College. \$6,282,000



RICHARD H. THOMAS PROJECT SUPERINTENDENT

WHY CHOSEN FOR THIS PROJECT:

- 37 years of experience
- Superintendent on the award-winning State College Area School District on Mount Nittany Elementary School, Ferguson Township Elementary School and Grays Woods Elementary School
- Previous Experience at State College High School for an addition and renovation in 1997-1998
- Experience on similar education projects:
 - Altoona School District & Spring Cove School District
- Completed 4 LEED projects
- Local to State College, immediate 24/7 availability

"Quality control on the site has been excellent (great superintendent)."

William Gladish

Associate Vice President Facilities Construction
Geisinger Health System

EDUCATION

Cambria Heights High School
Patton, PA

Admiral Perry Vo-tech
Ebensburg, PA

AFFILIATIONS

United States Green Building
Council (USGBC)

REFERENCES

Mr. William Gladish
Associate Vice-President Facilities
Construction

Geisinger Health System
Danville, PA
570-271-6938

Mr. Ed Poprik
Facilities Director
State College Area School District
State College, PA
814-231-1026

Mr. Mike Spicer
Contract Coordinator
State College Area School District
State College, PA
814-231-1028

Mr. D. Jeffrey Spackman, P.E.
Project Manager
The Pennsylvania State University
Office of Physical Plant
University Park, PA
814-863-2496

Mr. Terry Hansel
Facilities Project Coordinator
The Pennsylvania State University
Office of Physical Plant
University Park, PA
814-863-3940

RELEVANT EXPERIENCE

State College Area School District, State College, PA

- High School Modernization Estimate. \$90,000,000
- Elementary School Phase I. \$28,535,000
 - Ferguson Township Elementary School Addition & Renovations.
[State College Area School District Master Plan](#)
[2012 CMAA Project of the Year - Regional](#)
[2012 CMAA Project of the Year Honorable Mention- National](#)
[Pending LEED Certification](#)
 - Grays Woods Elementary School Addition.

State College Area School District, State College, PA (previous firm)

- High School Addition and Renovation. \$7,525,000

The Pennsylvania State University, University Park, PA

- Medlar Field at Lubrano Park. \$31,400,000
- Chemistry Building Phase II. \$27,309,000
- McAllister Building Renovation. \$10,214,000
[2005 American Society of Civil Engineers - Project of the Year](#)

Geisinger Health System. Danville, PA

- CMC Expansion - Scranton. \$60,832,700
- Gray's Woods Surgery Center & Parking Deck Ph. II. \$25,077,500
[Pending LEED Certification](#)
- Gray's Woods Ambulatory Care Campus. \$21,505,000
[LEED Gold Certified](#)
[2008 CMAA Project of the Year, Honorable Mention](#)

Altoona Area School District, Altoona, PA (previous firm)

- New Juniata Gap Elementary School. \$15,500,000

Cambria Heights School District, Patton, PA (previous firm)

- Cambria Heights Elementary School. \$15,200,000

Spring Cove School District, Martinsburg, PA (previous firm)

- Addition to Middle School. \$3,150,000



SCOTT J. MATSON ASSISTANT SUPERINTENDENT

WHY CHOSEN FOR THIS PROJECT:

- 24 years of experience
- Superintendent on the award-winning State College Area School District Mount Nittany Elementary School
- Completed 2 LEED projects
- Local to State College, immediate 24/7 availability
- Experience with the team
- Local to State College, immediate 24/7 availability

" Scott started work at MNMC on a very difficult project where we were building on top of an existing and operational Intensive Care Unit. He was so organized, thorough and caring about our patients, that I was thrilled to have him supervise our next project, the renovations for Entrance A."

Ed Bell

Project Manager
Mount Nittany Medical Center

EDUCATION

High School Diploma, Philipsburg-
Osceola High School
Vocational Degree in Carpentry
WPRCC Apprenticeship Program
Four Year Apprenticeship
Completion

CERTIFICATIONS

Superintendent Career Training
Certification, United Brotherhood
of Carpenters and Joiners of
America

REFERENCES

Mr. Ed Bell
Project Manager
Mount Nittany Health System
State College, PA
814-231-7188

Mr. Ed Poprik
Facilities Director
State College Area School District
State College, PA
814-231-1026

Mr. Jason Moore
Operations Engineer
The Pennsylvania State University
University Park, PA
814-863-9486

Mr. Mike Spicer
Contractor Coordinator
State College Area School District
State College, PA
814-231-1028

RELEVANT EXPERIENCE

State College Area School District, State College PA

- Elementary School Phase I. \$28,535,000
- Mount Nittany Elementary School.

Pending LEED Certification

The Pennsylvania State University, University Park, PA

- Old Main Renovations. \$Not disclosed per owner's request
- Old Main Emergency Operations Center. \$Not disclosed per owner's request

Mount Nittany Health, State College, PA

- Campus-wide Projects. \$113,949,084
- Mount Nittany Medical Center, East Wing Addition.
2011 CMAA Project of the Year – Regional
- Mount Nittany Medical Center, Emergency Department Expansion and Renovation.
- Mount Nittany Medical Center, Entrance A Addition & Renovation.

Kish Bank, State College, PA

- Kish Bank Financial Center. \$Not disclosed per owner's request.

Raytheon Company, State College, PA

- Building 5C Renovation. \$1,721,000
- LEED Gold Certified**



JOSHUA P. PROGAR

PROJECT ENGINEER

VIRTUAL CONSTRUCTION COORDINATOR

WHY CHOSEN FOR THIS PROJECT:

- 2 years experience
- Building Information Modeling, proficiency in various software programs
- Experience working with Crabtree, Rohrbach & Associates
- State College experience through student internship
- Education experience
- Experience with team
- Local to State College, immediate 24/7 availability

EDUCATION

B.A.E., Architectural Engineering,
Structural Option, The
Pennsylvania State University

M.S., Architectural Engineering,
Structural Option,
The Pennsylvania State University

Engineer in Training
BIM Studio, Structural Engineer

AFFILIATIONS

Student Society of Architectural
Engineers (SSAE)

Student Chapter of the Partnership
for Achieving Construction
Excellence (S:PACE)

REFERENCES

Lisa Berkey, P.E.
Director of Design & Construction
Services
The Pennsylvania State University
University Park, PA
814-865-7187

Mr. Harold L. Brungard
Vice President of Facilities and Plant
Operations
Mount Nittany Health
State College, PA
814-231-7122

Mr. Ed Bell
Project Manager
Mount Nittany Medical Center
State College, PA
814-231-7188

RELEVANT EXPERIENCE

Geisinger Health System, Danville, PA

- Gray's Woods Surgery Center & Parking Deck Ph. II. \$25,077,500
Pending LEED Certification
- Danville Lab. \$64,389,000

The Pennsylvania State University, University Park, PA

- Old Main Renovations. \$Not disclosed per Owners request

Mount Nittany Health, State College, PA

- Campus-wide Projects. \$113,949,084
 - Mount Nittany Medical Center, East Wing Addition.
2011 CMAA Project of the Year – Regional
 - Mount Nittany Medical Center, Emergency Department Expansion and Renovation.
 - Mount Nittany Medical Center, Lance and Ellen Shaner Cancer Pavilion.
 - Mount Nittany Medical Center, Entrance A Addition & Renovation.

Project Engineer/Virtual Construction Coordinator Champion

- Developed preliminary framework for company building information modeling (BIM) processes through the creation of original collaborative documentation & multi-disciplinary coordinated construction models
- Leader of the BIM Implementation Task Force to develop company specific BIM implementation planning documentation
- Led virtual MEP coordination processes through management, training and organization

Crabtree, Rohrbach & Associates – Architects (previous firm)

- Exposed to advanced architectural spacial design resulting in the trust to independently perform preliminary design for the firm



RON ZEMNICK

SENIOR MANAGER, MEP SERVICES ELECTRICAL

WHY CHOSEN FOR THIS PROJECT:

- 39 years experience of HVAC, plumbing, electrical, fire protection and associated control systems
- Provided estimating services on nine K-12 schools
- Has estimated MEP systems for multiple projects over \$100 million
- His contributions during the estimating process have helped identify potential issues and ways to address them
- Completed 2 LEED projects
- Provided estimate for SCASD High School project
- Experience with team

"Ron has made many contributions to the estimating and coordination of the mechanical and electrical elements of those projects as MEP Manager. His coordination of the emergency power system upgrades on the Gettysburg Hospital Emergency Department Addition & Renovation project were incredibly valuable in identifying potential issues and taking steps to avoid them beforehand. We are thrilled to have Ron taking the same leadership role on the York Hospital Power Systems Improvements project."

Craig Long

Vice President, Facility Planning and Construction
WellSpan Health

EDUCATION

B.A. Architecture
Columbia University

Graduate & Post-Graduate Studies
Columbia Graduate School of
Architecture; Rider College; and
Temple University

AFFILIATIONS

National Electrical Contractors
Association
– Past Chair, Labor/Management
Committee
– Board Trustee, Chestnut Hill
College

REFERENCES

Sister Carol Jean Vale, PhD
President

Chestnut Hill College
Philadelphia, PA
215-248-7010

Rosella J. Harvey, RA, LEED AP
Senior Associate
NORTHSTAR advisors, LLC
(i.e. *Mastery Charter Schools*)
Ardmore, PA
610-896-8100 ext. 281

Mr. Robert Fogarasi
Vice President
Binswanger
King of Prussia, PA
267-979-3065 (Cell)

Mr. Robert Voth
Executive Vice President
Bala Consulting Engineers
King of Prussia, PA
267-515-6920

Mr. Craig Long
Vice President Facilities
WellSpan Health
York, PA
717-851-6109

RELEVANT EXPERIENCE

State College Area School District, State College, PA

- High School Modernization Estimate. \$90,000,000

Dickinson College, Carlisle, PA

- Durden Athletic Training Center. \$6,900,000

LEAP Academy Charter Schools, Camden, NJ

- S.T.E.M. High School. \$9,476,000

Mastery Charter Schools, Philadelphia, PA

- Multiple Campus Renovation/Addition Projects. \$16,739,000
 - Pickett Campus.
 - Lenfest Campus (High Tech High).
 - Harrity, Mann & Smedley Campuses.
 - Gratz & Clymer Campuses.

The Pennsylvania State University, University Park, PA

- Beaver Stadium Renovations, Phase I. \$7,612,000
- Old Main Renovations. \$Not disclosed per owner's request

Thomas Jefferson University, Philadelphia, PA

- Life Sciences Building. \$118,594,000

General Services Administration, Philadelphia, PA

- Veterans Administration Regional Headquarters. \$110,446,000

University of Pennsylvania, Philadelphia, PA

- Biomedical Research Building. \$85,668,000



SCOTT ERNEY

SENIOR MANAGER, MEP SERVICES

MECHANICAL & PLUMBING

WHY CHOSEN FOR THIS PROJECT:

- 32 years of experience
- Senior Manager - MEP on the award-winning State College Area School District on Mount Nittany Elementary School, Ferguson Township Elementary School and Grays Woods Elementary School
- Estimator for MEP Systems for Allentown School District high school projects
- Experience with team

“Both Scott and Steve served very critical roles with coordination and planning, as well as oversight for the several different sub contractors required to complete these projects. This team continues to push contractors, engineers, and commissioning teams to ensure each and every expectation of the owner is met.”

Harold Brungard

Vice President of Facilities and Plant Operations
Mount Nittany Medical Center

EDUCATION

Building Code Inspector Training / Certification 1996 BOCA, NEC, CABO, NFPA

EPA Radon Mitigation Certification Course 1995 Rutgers University

Steamfitter’s Local Union 420
Apprentice Training Center 1986
Philadelphia, PA

Nolde Environmental School 1978
Reading, PA

ASHE Healthcare Construction Certificate

REFERENCES

Mr. Harold L. Brungard
Vice President of Facilities and Plant Operations
Mount Nittany Medical Center
State College, PA
814-231-7122

Mr. Hank Merrill
Director of Operations
The MRA Group
Breinigsville, PA
610-972-5312

Mr. Ted Holaska
Director
B. Braun Medical
Allentown, PA
610-509-5548

Mr. Doug Murray
Sr. Vice President
Stantec Consulting Services
Philadelphia, PA
215-313-0983

Mr. Roderick Strohm
LSI Corporation
North America Property Manager
610-712-8903
610-295-2319 (Cell)

RELEVANT EXPERIENCE

State College Area School District, State College, PA

- Mount Nittany Elementary School. \$13,503,000
Pending LEED Certification
- Ferguson Township Elementary School Addition & Renovations. \$13,724,000
State College Area School District Master Plan
2012 CMAA Project of the Year - Regional
2012 CMAA Project of the Year Honorable Mention- National
Pending LEED Certification
- Grays Woods Elementary School Addition. \$1,308,000

Allentown School District, Allentown, PA

- Facilities Improvements - Phase 1. \$140,614,000
 - William Allen High School Renovation & Addition.
LEED Gold Certified
 - Dieruff High School Addition & Renovations.
 - Ramos Elementary School Expansion.
LEED Gold Certified
 - Roosevelt Elementary School Addition & Renovations.
LEED Gold Certified
 - Trexler Middle School Addition & Renovations.
 - South Mountain Middle School Addition & Renovations.
- William Penn School. \$8,800,000

Mount Nittany Health, State College, PA

- Campus-wide Projects. \$113,949,084
 - Mount Nittany Medical Center, Perioperative Services Expansion.
 - Mount Nittany Medical Center, East Wing Addition.
2011 CMAA Project of the Year - Regional
 - Mount Nittany Medical Center, Emergency Department Expansion.
 - Mount Nittany Medical Center, Lance and Ellen Shaner Cancer Pavilion.



CHARLES BARAN

SENIOR ESTIMATOR

SITE AND STRUCTURE

WHY CHOSEN FOR THIS PROJECT:

- 36 years of experience
- Lead Estimator on the award-winning State College Area School District on Mount Nittany, Ferguson Township and Grays Woods Elementary Schools
- Relevant experience on State College projects:
 - Over \$300 million in total project volume
- Provided estimate for SCASD High School Project
- Experience with team
- LEED experience
- Great working relationship with local subcontractors

EDUCATION

Associate Degree in Architectural Engineering Technology
The Pennsylvania State University

REFERENCES

Mr. Greg Hayes
Vice President
Kish Bank
State College, PA
814-861-7400

Mr. Tim Cowan, R.A.
Burt Hill Architects
Butler, PA
724-285-4761

Mr. Jeffrey Spackman, P.E.
Project Manager
The Pennsylvania State University
University Park, PA
814-863-2496



Ferguson Township Elementary School



Mount Nittany Elementary School

RELEVANT EXPERIENCE

State College Area School District, State College, PA

- High School Modernization Estimate. \$90,000,000
- Elementary School Phase I. \$28,535,000
 - Mount Nittany Elementary School.
Pending LEED Certification
 - Ferguson Township Elementary School Addition & Renovations.
[State College Area School District Master Plan](#)
2012 CMAA Project of the Year - Regional
2012 CMAA Project of the Year Honorable Mention- National
Pending LEED Certification
 - Grays Woods Elementary School Addition.

The Pennsylvania State University, University Park, PA

- Chandlee Lab Renovations. \$12,720,000
- Beaver Stadium Scoreboard Replacement. \$11,000,000
- Beaver Stadium Renovations Phase I. \$7,612,000
- Old Main Renovations. \$Not disclosed per Owners request
- Merkle Laboratory Renovation. \$1,057,000
- Pollock Halls Fire Safety Improvements Ph. III. \$2,890,000

Mount Nittany Health, State College, PA

- Campus-wide Projects. \$113,949,084
 - Mount Nittany Medical Center, Perioperative Services Expansion.
 - Mount Nittany Medical Center, East Wing Addition
2011 CMAA Project of the Year – Regional
 - Mount Nittany Medical Center, Emergency Department Expansion and Renovation.
 - Mount Nittany Medical Center, Lance and Ellen Shaner Cancer Pavilion.
 - Mount Nittany Medical Center, Entrance A Addition & Renovation.

Geisinger Health System, Danville, PA

- Gray's Woods Ambulatory Care Campus. \$21,505,000
LEED Gold Certified
2008 CMAA Project of the Year, Honorable Mention



TIMOTHY KAY

ESTIMATOR

INTERIOR AND FINISHES

WHY CHOSEN FOR THIS PROJECT:

- 12 years of experience
- Experienced in school district projects and value engineering for cost savings
- Executive level responsibility within Alexander
- Completed 5 LEED projects
- Recently brought a High School renovation project in \$1 million under budget
- Successfully completed multiple PA High School projects
- Experience with team

"The Alexander pre-construction staff was knowledgeable, patient and understanding with user groups. The level of planning detail was significant, leading to a smooth and well-organized construction process. The field people are outstanding. Coordinating with staff, physicians, administration, project manager, regulatory officials, local contractors and very importantly facilities personnel was professional, collegial and supportive."

Rita Spangler

Vice President of Operations
Susquehanna Health System

EDUCATION

B.A.E. Architectural Engineering
The Pennsylvania State University

CERTIFICATIONS

Engineer-In-Training Certificate in
Pennsylvania

REFERENCES

Mr. Ken Shultes
Assoc. VP for Campus Operations
Dickinson College
Carlisle, PA
717-245-1943

Mr. Bill Gladish, R.A.
Associate Vice-President Facilities
Construction
Geisinger Health System
Danville, PA
570-271-6938

Mr. William Gretton III
Assistant Superintendent for
Business Affairs (retired)
Harrisburg School District
717-687-8465 (home)

Ms. Rita Spangler
VP of Operations
Susquehanna Health System
Williamsport, PA
570-321-3171



Camp Curtin Elementary School

RELEVANT EXPERIENCE

Harrisburg School District, Harrisburg, PA

- Downey School Addition and Renovation. \$11,926,000
- Lincoln School Addition and Renovation. \$9,724,000
- Benjamin Franklin School Addition and Renovation. \$7,168,000
- Scott K-8 Elementary School Addition and Renovations. \$2,560,000
- Camp Curtin K-8 Elementary School Addition & Renovation. \$19,200,000
- Foose K-8 Elementary School addition and renovation. \$3,198,000

Mount Nittany Health, State College, PA

- Mount Nittany Medical Center, East Wing Addition. \$31,065,000
2011 CMAA Project of the Year – Regional
- Mount Nittany Medical Center, Mifflin County Medical Building. \$2,662,000

Campus Apartments, Inc., Lancaster, PA

- Franklin & Marshall College, College Row Student Apartments. \$33,840,000
2011 Envision Lancaster County - Envision Achievement Award

Dickinson College, Carlisle, PA

- Durden Athletic Training Center. \$6,900,000

East Stroudsburg University, East Stroudsburg, PA

- Monroe Hall Renovations. \$10,300,000

Geisinger Health System, Bloomsburg, PA

- CMC Expansion - Scranton. \$60,000,000
- Buckhorn Office Building. \$11,800,000

Harrison and Grass Investments, State College, PA

- The Colonnade Phase II. \$29,100,000

The City of Harrisburg, Harrisburg, PA

- The National Civil War Museum. \$28,388,000
2001 Masonry Contractor's Association Project of the Year

SEPARATION OF WORK & MULTIPLE PRIME CONTRACTS

Whether we are managing public projects or private projects, it is always our strong recommendation to use multiple prime contractors/subcontractors. Most of our projects in both the public and private sectors will have 10-25 bid packages. The number of bid packages for the State College Area School District High School project will likely be at the higher end of the range. **This approach ensures that higher quality firms will perform the work. It also eliminates multiple markups and inflated change orders, thereby reducing the ultimate cost to SCASD. Communications and field supervision are also more direct and effective.** This is especially important on your project because of the close coordination required to address the continuous operations of the building.

As part of the bid documents, we will prepare bid clarifications (prime contractor scopes of work) to define the scope of work in each bid package, e.g. which specification sections fall under each bid package. The clarifications eliminate confusion and the possibility of work either being double-counted or missed entirely. We will conduct pre-bid meetings to address the clarifications, schedule, phasing requirements, scope of work and other bid instructions. The School District may participate in the bidding process to whatever extent it desires. We will ensure that all of SCASD's bidding requirements are strictly adhered to.

Prior to recommending award of the prime contracts, we will debrief the firms to ensure that their bids include the entire scope of work for their particular bid package and that the phasing requirements/schedule are clearly understood. The contracts will be awarded upon approval of the School District. We will aid in the administration of the paperwork (preparation of contracts, certificates of insurance, performance and payments bonds, certified payrolls, billings, etc.). Foremen and project manager meetings will be conducted regularly to address construction issues.



LEED EXPERIENCE

Alexander Building Construction has served multiple roles on sustainable design and construction teams responsible for Preconstruction and Construction Phase Services as the Construction Management firm. In all instances, the early involvement of Alexander has helped every owner achieve their sustainable goals and exceed them on 80% of our projects. The School District will benefit from the intimate knowledge our proposed team has with the USGBC LEED® program and their past successful completion of sustainable projects. The team has LEED® Accredited Professionals who can guide and support you and the design team so that you will get the maximum benefits and energy cost savings out of the building.



**ALEXANDER
HAS COMPLETED
MORE THAN
16 LEED-
CERTIFIED PROJECTS.**

Alexander has developed standard Construction Waste and Construction Indoor Air Quality Management Plans including the spreadsheets and checklists required of the points specifically related to or required of the CM. Additionally, we have developed standardized tracking forms for LEED® required submittals and customized spreadsheets for all value-related points covered in the Materials & Resources and Indoor Environmental Quality categories. This knowledge and experience will be shared to support the design team and sustain the scrutiny of a USGBC audit of these critically important points.

**SUSTAINABILITY
CHECKLIST ESTABLISHED
BY ALEXANDER HELPS TO
ENSURE SUCCESSFUL
ACCREDITATION.**

Integral in achievement of these goals is a successful commissioning process. On all of the LEED® and sustainable projects (totaling more than \$1.0 Billion Dollars in Construction Value) Alexander Building Construction and its affiliated companies have managed commissioning of key systems.

Commissioning can be delivered in many different levels of detail on virtually every building system. It influences both construction and design. The most common building systems to be commissioned are the Mechanical, Electrical and Plumbing systems. This begins during design and is ultimately completed well after building occupancy. Alexander’s in house MEP division, led by Ron Zemnick and Scott Erney, can work with the owner, design professional and Commissioning Agent through an integrative design approach to evaluate and develop the most efficient commissioning plan for your buildings. The resulting plan will consider not only MEP systems, but also other systems impacting the energy performance of the building (i.e. façade, envelope, interior finishes, etc.).

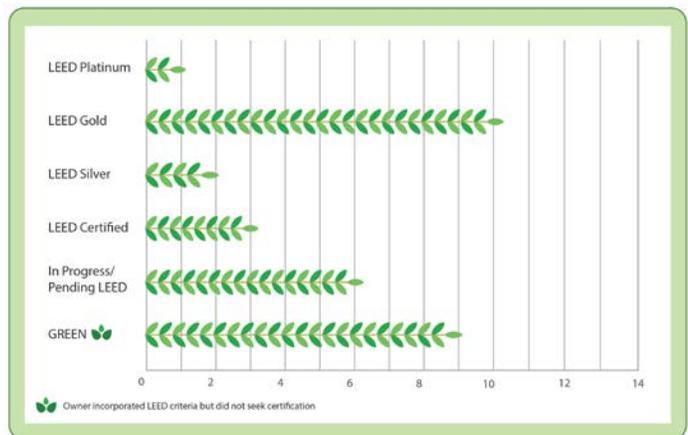


The three main phases of Commissioning are design, construction and acceptance. Traditionally the design and construction phases are easily identified and the commissioning process just as easily integrated. However, the acceptance phase of the process is less discrete and success depends a great deal on the work that was performed during design and construction.

The acceptance phase begins with equipment start-up and turn-over. A successful, cost-effective operator training and maintenance program development depends as much on proper specification inclusions as it does on the enforcement of the specified requirements during construction. A separate operator training schedule, in which primarily manufacturer representatives/technicians, and trade contractor personnel conduct training on their individual equipment and systems is imperative to a seamless acceptance. Alexander can lead the coordination and planning as well as produce professional videos of the training.

The Testing and Turn-Over Procedure must be established as part of the Commissioning Plan for the purpose of closing out all of the project’s physical and documentation requirements and included in the project specifications prior to bidding. This procedure actually is most effective when established early in the construction phase management of each project. Alexander utilizes this procedure to provide a systematic, comprehensive, and cohesive methodology for bringing each project to a clean and final completion.

The Butz Family of Companies has ranked in the Engineering News Record’s “Top 50 Green Contractors” on multiple occasions. This section highlights major projects incorporating LEED standards or other sustainable design, construction, and operations criteria. We have 16 projects that have been certified with six more in progress or pending certification. Below is a listing of our LEED certified projects and pending projects.



LEED CERTIFIED PROJECTS



Berks County Community Foundation Headquarters



Philadelphia Housing Authority Norris Apartments



Pennsylvania Real Estate Investment Trust 801 Market Street



Pennsylvania State University - Berks Campus Gaige Technology and Classroom Building



Lehigh University S.T.E.P.S. Building



Allentown School District Roosevelt Elementary School

GOLD



Allentown School District
William Allen High School

GOLD



Allentown School District
Ramos Elementary School

GOLD



Geisinger Health System
Gray's Woods Ambulatory Care Facility

GOLD



Raytheon
Building 5C Machine Shop Renovation

GOLD



Haverford College
Gardiner Integrated Athletic Center

SILVER



Geisinger Health System
Wyoming Valley Medical Center

SILVER



Pennsylvania Turnpike
Central Administration Building

CERTIFIED



PBS39
Public Media and Education Building

CERTIFIED



Geisinger Health System
Buckhorn Office Building

CERTIFIED



Geisinger Health System
Henry Cancer Center

PROJECTS IN PROGRESS / PENDING LEED APPROVAL

-  **State College Area School District**
Ferguson Township Elementary School – Addition and renovations
Mount Nittany Elementary School – New elementary school
-  **DeSales University - Gambet Center for Business and Healthcare**
New two-story classroom/lab building
-  **Geisinger Health – Danville Lab**
New seven floor lab facility
-  **Geisinger Health – Gray's Woods Surgery Center and Parking Deck**
New surgical facility and parking deck for the ambulatory care campus
-  **Butz Corporate Center- Phase II**
Corporate office building addition
-  **Dickinson College – Durden Athletic Training Center**
New athletic training center

BUILDING INFORMATION MODELING

Alexander is an industry leader in the use of Building Information Modeling (BIM) and embraces the value it brings to a project. We excel at evaluating potential uses for BIM on a project specific level to coordinate all aspects of the design, fabrication and construction process before actually constructing in the field.

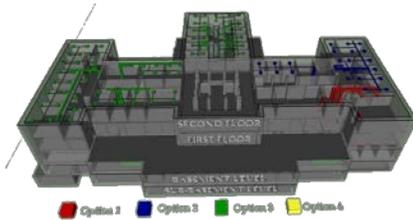
Our team, in coordination with the State College Area School District and CRA, will lead the development of a detailed project specific BIM Implementation Plan in the following steps.



PRECONSTRUCTION PHASE UTILIZATION

Our project team has evaluated each dimension of BIM and identified the following potential uses to be beneficial during the preconstruction phase of the SCASD High School Project.

3D



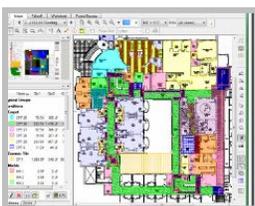
- Use BIM to educate/inform the CAC for facilities and School Board.
- Enhanced prefabrication through utilization of the Revit design model.
- Utilize design model as a 3D Visualization/Walkthrough Model(s) for preconstruction constructability reviews for complex construction systems or sequences.
- Utilize design model to establish site logistics including material laydown, deliveries, construction trailer locations, etc. See 4D below.
- Use BIM during pre-bid meetings
- Utilize BIM for visualization during scope review meetings

4D



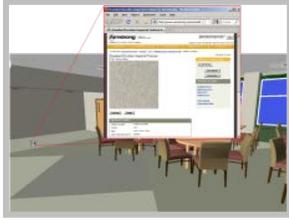
- Analyze logistical issues (i.e. traffic or parking) which may be affected by construction in an attempt to minimize impact to the students and staff.
- 4D construction sequencing models linked to a preliminary schedule for early phasing & constructability analysis

5D



- Revit model and On-screen take-off use by our estimators improve accuracy and consistency of estimates.

6D



- Develop an approach for seamless transition from the design to construction to operations model.
- Establish Owner desired intelligent attributes for 6D record models.

Process Dimension



- Develop detailed BIM processes, information exchanges and establish model responsibilities through the creation of a project specific BIM Execution Plan with all project team members.

CONSTRUCTION PHASE UTILIZATION

Our project team has evaluated each dimension of BIM and identified the following uses to be beneficial during the construction phase of your project:

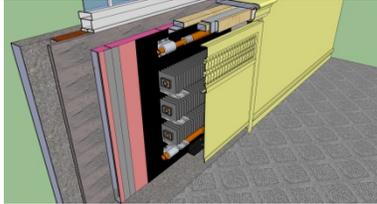
- 3D MEP Coordination with Clash Detection
- Virtual walkthroughs of critical building spaces
- Track completed and planned construction activities in the Building Information Model
- Utilize BIM with schedule look-ahead updates in foreman and project manager meetings
- Visualization with trade contractors to coordinate challenging construction activities
- Capture as-built construction documentation into record model
- Provide proposed solutions initiated by Alexander in RFI's to the design team
- Implement approach for seamless transition from construction model to Facilities, Operations and Maintenance model



VIRTUAL DESIGN & CONSTRUCTION PROJECTS

The Butz Family of Companies completed nearly \$1.1 billion of construction projects over the past five years in which Building Information Modeling (BIM) and Virtual Design + Construction processes were successfully implemented. This section highlights major projects incorporating virtual design & construction practices.

COMPLETED PROJECTS



A virtual mockup conveys preliminary system design in section and serves as a key tool in constructability review.

Pennsylvania State University

Old Main Building Systems Renovations (2013)

Phased MEP renovations, restroom & historical lobby renovations within 100% occupied facility

- 3D MEP coordination
- 3D visualization & design review
- Virtual site logistics & phasing
- Existing condition documentation modeling
- Paperless, virtual plan tables
- Field iPads
- Asset Management / bar coding



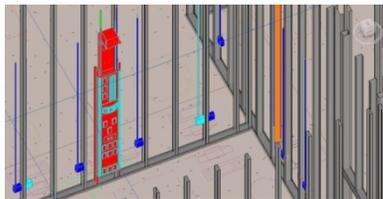
In-wall coordination is used to aid in installation of all in-wall rough-ins to consistent locations in all exam rooms.

Mount Nittany Medical Center

Emergency Department Expansion and Renovation (2013)

Phased addition and renovation of existing emergency department

- 3D MEP coordination
- 3D in-wall coordination
- 3D visualization & design review
- 3D virtual mockups
- Field iPads
- Digital documentation management
- Virtual meetings



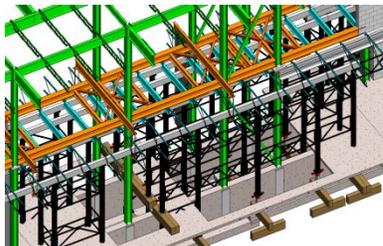
In-wall coordination is used to aid in installation of all in-wall rough-ins to consistent locations in all exam rooms.

Mount Nittany Medical Center

Entrance 'A' Addition and Renovation (2012)

Phased addition & renovation to main entrance of the hospital

- 3D MEP coordination
- 3D visualization & design reviews
- Field iPads
- Virtual meetings



A virtual phasing model allows for visualization of complex construction sequences.

Mount Nittany Medical Center

Lance and Ellen Shaner Cancer Pavilion (2012)

Phased 1-story overbuild and 3-story addition with interior renovations & structural retrofit

- 3D MEP coordination
- 3D in-wall MEP coordination
- 3D visualization & design review
- 3D virtual mockups
- 3D site logistics planning (preconstruction)
- 4D structural retro fit phasing / sequencing
- Field iPads
- Digital documentation management
- Virtual meetings



An exterior visualization model allows the owner & key stakeholders an advanced review of the final building design.

Geisinger Health System

Buckhorn Office Building – Phase II (2012)

3-story medical office building addition including 3-story skylight atrium area

- 3D MEP coordination
- 3D visualization & design reviews
- 3D virtual mockup



Virtual design reviews allow for quality control & coordination prior to actual installation.

Mount Nittany Medical Center

East Wing Expansion Project (2010)

3-story overbuild, 1-story addition above occupied hospital

- 3D MEP coordination
- 3D visualization
- Virtual mockups & design reviews

PROJECTS IN PROGRESS

- **Geisinger Health System, Grays Woods Surgery Center and Parking Deck (2014)**

2-story addition including new ambulatory surgery center & two-tier parking garage

- 3D MEP coordination
- 3D visualization & design review
- 4D phasing / construction sequencing
- 5D cost estimation & quantity takeoffs
- 6D facility management integration
- Virtual prototyping
- Field iPads



- **The Church of the Good Shepherd, The Father Bender Community Center (2014)**

New parish center with classrooms & meeting rooms

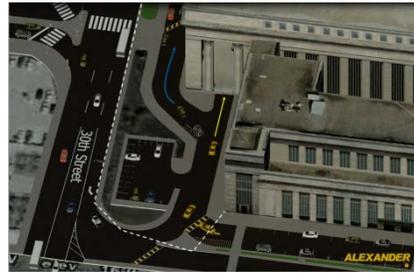
- 3D MEP coordination
- 3D visualization & design reviews
- Site logistics planning
- 4D phasing / sequencing
- Virtual plan table (digital drawings)
- Field iPads
- Virtual meetings (flat screen TVs)



- Amtrak 30th Street Station, West Plaza and North Deck Renovations (2014)**

Waterproofing & structural repairs / replacement for multi-level underground parking deck

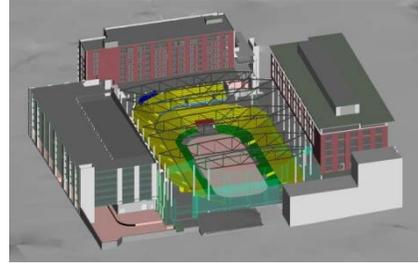
- 3D visualization & design reviews
- Site logistics & phasing
- Traffic flow logistical analysis



- Allentown Arena, PPL Center (2014)**

Specialized hockey arena, hotel, office center & parking structure

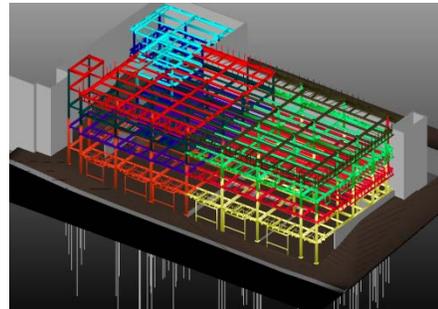
- 3D MEP coordination
- 3D precast shear wall, stair, MEP penetrations & elevator insert coordination
- 3D exterior wall system shop drawings & coordination
- 3D visualization & site logistics
- 4D construction sequencing
- Field iPads
- Digital document management



- Mount Nittany Medical Center, Perioperative Services Expansion (2014)**

4-story addition including new operating rooms & pharmacy

- 3D MEP coordination
- 3D substructure visualization & design review
- 3D augmented reality & virtual mockups
- 3D in-wall coordination
- 4D steel sequencing
- Field iPads & virtual meetings
- Digital document management



- Geisinger Health System, Danville Laboratory Medicine Building (2015)**

7-story medical laboratory addition adjacent an occupied hospital

- 3D MEP coordination
- 3D visualization & design review
- 4D phasing / construction sequencing
- 5D cost estimation & quantity takeoffs
- 6D facility management integration
- Field iPads
- Virtual meetings & project updates
- GPS located advanced photo documentation



- Geisinger Health System, CMC Expansion - Scranton (2016)**

Community medical center campus expansion and interior renovations

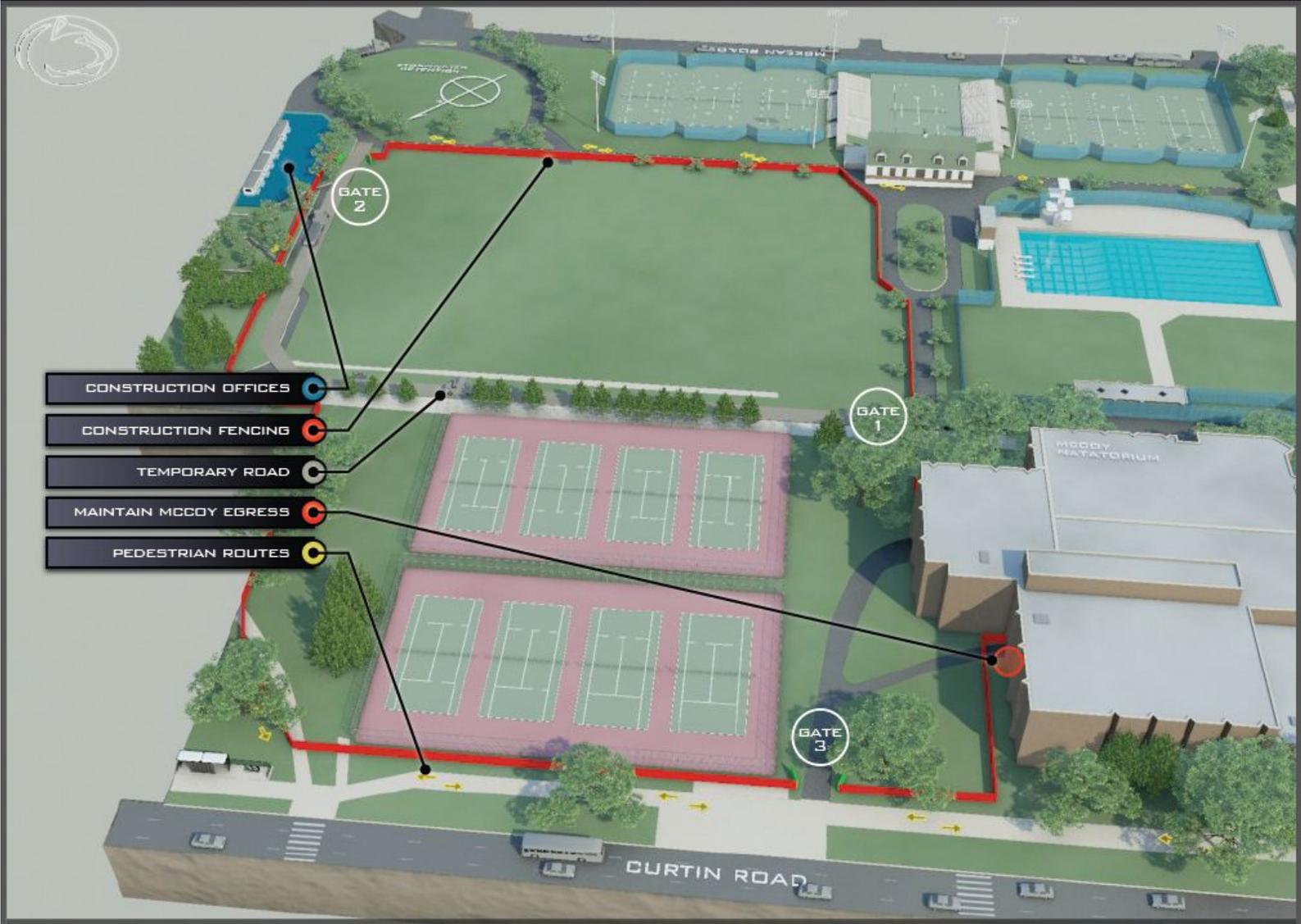
- 3D MEP coordination
- 3D building enclosure visualization & review
- 4D phasing / construction sequencing
- 4D delivery analysis & coordination
- 6D facility management integration
- Field iPads
- Virtual meetings & project updates



SITE LOGISTICS

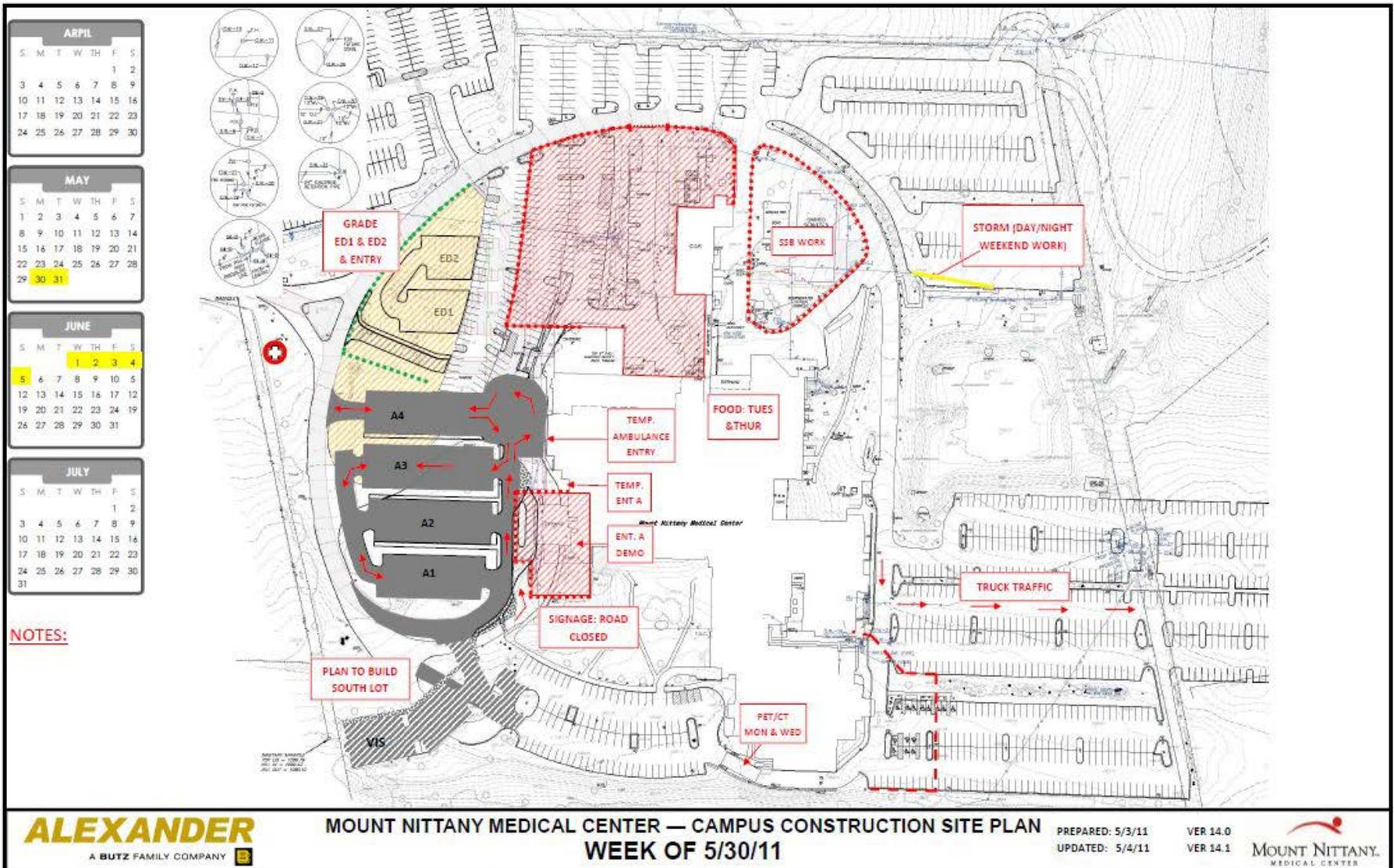
PENN STATE NATATORIUM AND TENNIS CENTER

University Park, PA



MOUNT NITTANY MEDICAL CENTER CAMPUS

State College, PA



NOTES:

ALEXANDER
A BUTZ FAMILY COMPANY

MOUNT NITTANY MEDICAL CENTER — CAMPUS CONSTRUCTION SITE PLAN
WEEK OF 5/30/11

PREPARED: 5/3/11
UPDATED: 5/4/11

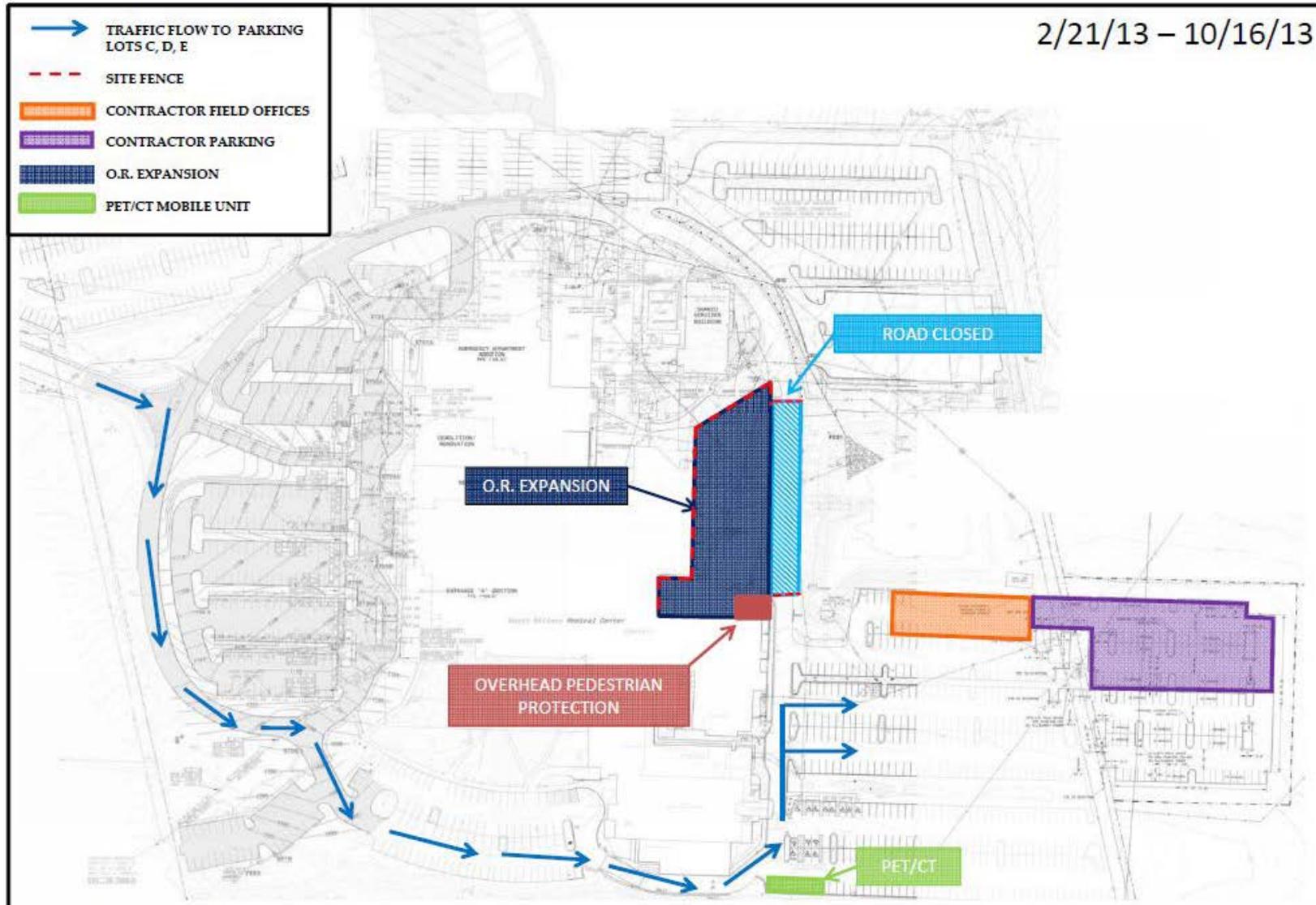
VER 14.0
VER 14.1
MOUNT NITTANY
MEDICAL CENTER

ALEXANDER
A BUTZ FAMILY COMPANY

MOUNT NITTANY MEDICAL CENTER CAMPUS

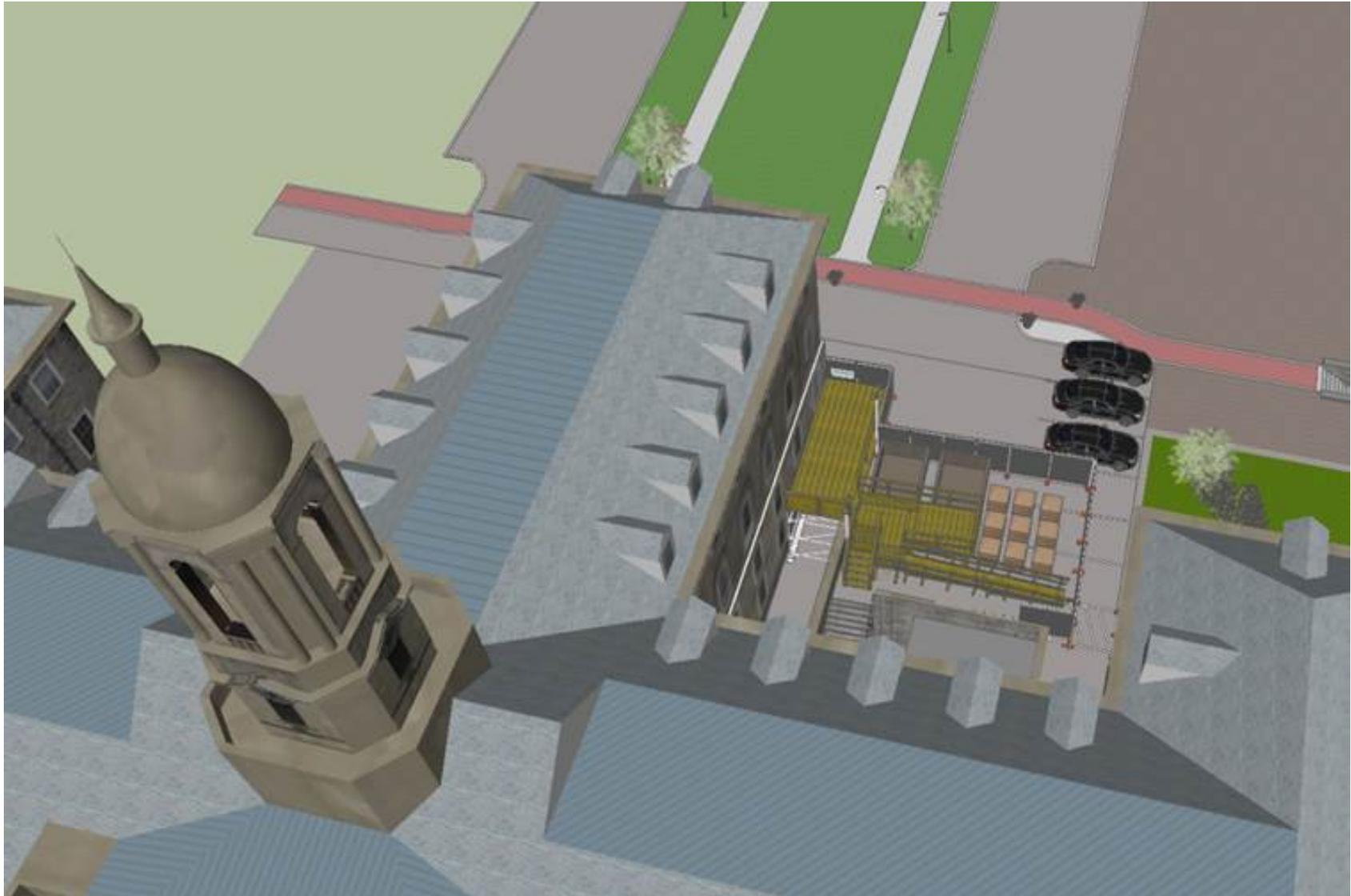
State College, PA

2/21/13 – 10/16/13



PENN STATE OLD MAIN RENOVATION

University Park, PA



PENN STATE OLD MAIN RENOVATION

University Park, PA



GEISINGER GRAY'S WOODS

State College, PA



LEHIGH VALLEY HEALTH NETWORK CAMPUS

Allentown, PA



VALUE ENGINEERING

One of Alexander's key responsibilities during the Design Phase is to ensure that the Architect's design remains compatible with the Owner's budget. We will continuously review the design documents to identify ways to save dollars and/or time without compromising the intent of the Architect. This is done through our on-going, real-time, Value Enhancement process.

In addition to our Value Enhancement efforts, Alexander's preconstruction team conducts value engineering analyses for the major building systems, components and materials at predetermined milestones during the design phase, these will include the 30/60/90% review submissions. We will suggest alternative solutions for materials and building methods to the owner's representative and the design team for consideration and review. All recommendations will be made in an effort to achieve the essential functions of the project at the lowest cost and completed in the shortest amount of time.

It is critical to understand that true value engineering analyses do not represent a "cheapening" of the job based on pure costs. This analysis must take into account operating costs, life-cycle costs, owner equipment predispositions, and other factors that impact value. The constructed cost of a building represents a small percentage of the life cycle operating costs, so decisions made to reduce the constructed cost of a facility may not represent a good value to the owner over the life of the investment.

The Alexander team members represent seasoned construction professionals with a variety of building systems experiences. As part of a three-company holding company, we also have access to expertise from our two sister companies in Allentown and Philadelphia for additional experience which we draw on during the value engineering efforts. This experience enables our project team to examine a wide variety of alternatives, much more than a single-office local construction company. Since Alexander's preconstruction team members also deal in the State College bid environment on a regular basis, they are very familiar with the latest local competitive technologies, processes, and materials that optimize the cost of construction on a project. This knowledge is put to work on behalf of the owner, in a proactive way, so that the benefits can be "built in" to the project prior to completion of the construction documents.



Another key element of the process is the opportunity for dialogue with the owner's facility management personnel, who can provide important information (personnel training, inventory management, preventive maintenance programs) that can affect equipment selection suggestions that the team will make.

▶ **The object of the value engineering process is to maximize the value of the owner's investment.**

VALUE ENGINEERING PROCESS FOR NEW BUILDINGS, RENOVATIONS AND ADDITIONS

- Site visit and interview with the owner operations personnel
- Major construction elements evaluated:
 - Building systems
 - Components/equipment
 - Materials
 - Building methods/constructability review
- Solutions reviewed by project team
- Life cycle cost analysis of alternate design options
- Evaluate building program assuring it is delivered in the shortest schedule
- Solutions submitted to the owner and design team
- Accepted suggestions incorporated and tracked through preconstruction

Our proactive approach to value engineering allows the Owner, in conjunction with the design professionals, to make informed business decisions to improve the quality of the building and to respond to our ideas through which financial savings can be achieved.

VALUE ENGINEERING EXAMPLE/REPORTS - PARKLAND HIGH SCHOOL

Parkland High School features a 477,000 SF, two-story building complex consisting of three classroom wings, gymnasium, natatorium, locker facilities, arts, music and theatrical complex, major library and administrative areas. Through the Value Enhancement effort, over \$6,000,000 dollars of cost savings recommendations were identified.

The following pages provide a detailed description of the report and process that is utilized to document and track the Value Enhancement process at Alexander and a summary of the findings that were implemented as well as rejected on the Parkland High School project.

The Alexander Building Construction Value Engineering Tracking Report (ABC-VE) is shown in Figure 1-1. This report guides the Value Enhancement process emphasizing a focus on:

- Accurate initial budget development
- Current estimated project costs throughout preconstruction (updated at 30/60/90)
- Difference between current estimated costs and current budget value
- Value Engineering Opportunities
- Estimated values of Value Engineering Opportunities
- Accepted and Rejected Value Engineering Opportunities

Viewing the yellow box in Figure 1-1 allows you to follow the first four steps in the ABC-VE report development. The first step is to develop the initial overall project cost estimate (project budget) and to input the value into the total construction cost field (Field A). Once this initial budget is established, every estimate that follows will be evaluated against the prior estimate.

The overall budget and current estimates (Field B) are categorized by systems in an effort to more easily identify those systems which offer the most Value Engineering opportunity (i.e. highest cost, overall cost outlier with respect to other systems, etc.).

Sample Project
Potential Cost Changes
Construction Documents
Updated March 7, 2007

7-Mar 07	Description	Gross Amount	Redesign/ Offsets	Accepted VE Items	Rejected VE Items	Under Study	To Be Verified	Comments
CONSTRUCTION COST SUMMARY								
	Budget Construction Cost (10/13/06 Estimate):							
	Miscellaneous Indirects	455,270						
	MEP	447,600						
	Sitework	170,140						
	Structure	465,255						
	Finishes	217,565						
A	Total Construction Cost (10/13/06 Estimate)	1,785,830						
	Current Construction Cost (2/27/07):							
	Miscellaneous Indirects	406,625						
	MEP	442,580						
	Sitework	250,485						
	Structure	646,706						
	Finishes	224,169						
B	Total Construction Cost (2/27/07):	1,970,565						
C	Current Construction Overage (B-A)	184,735						
D	Accepted VE Items	-33,420						
E	Revised Construction Price with accepted VE items (B+D)	1,937,145						
F	Revised Construction Overage (E-A)	151,315						
Sitework								
	Defer parking light fixtures (install conduit & wiring)	csm	4,000			-4,000		
	Defer site lighting to phase 2	sub+	13,660			-13,660		
	Reduce sidewalk quantity	sub	4,000			-4,000		
	Reduce parking area to minimum required	sub	8,700			-8,700		
	Defer playground	csm	6,000			-6,000		
	Delete curbing	sub	1,800			-1,800		
	Delete trees mandated by Ferguson Township	csm	4,000			-4,000		
	Delete exterior lighting on the building	sub	500			-500		
Building Structure								
	Tax Exemption							
	Delete foundation drainage	rkw	1,500			-1,500		
	Reduce building height by 2'-0" (ceiling height from 10'-0" to 8'-0")	TBD	8,000				-8,000	

Figure 1-1: Alexander Building Construction V.E. Tracking Report (ABC-VE)

Once values A & B are input, the current construction overage or savings is calculated and reported in Field C. At this point, the documentation and management of the Value Engineering process begins.

First descriptions of potential cost savings elements are identified for the project. In a true Value Enhancement approach, special care is paid to not decreasing the overall value of the project while still attempting to decrease the project cost. All potential items are input into the 'Description Column' of the table (see Figure 1-2) through a comprehensive brainstorming session with all project team members prior to accepting or rejecting any items or assigning any potential values.

Once the description column is occupied, initial 'To Be Verified' values are assigned to each item. These are initial values and are recorded as such until they are studied and transferred to the 'Under Study' column of the report. At any time in the process, items can be rejected and removed from discussion. However, only once final subcontractor pricing has been received (either in the form of a bid alternate or change order if the contract has already been issued) can the item be moved to the accepted column of the table.

**Sample Project
Potential Cost Changes
Construction Documents
Updated March 7, 2007**

7-Mar 07	Description	Gross Amount	Redesign/ Offsets	Accepted VE Items	Rejected VE Items	Under Study	To Be Verified	Comments
Exterior								
	Replace split-faced block above 2'-0" with vinyl siding	plug	11,200				-11,200	Based on 1,600 sf
	Replace split-faced block with vinyl siding (the remaining 2'-0")	plug	7,700				-7,700	Based on 1,100 sf
	Change texture of block from split-faced to standard	sub	1,750			-1,750		
	Delete score in split-faced block	sub	1,000			-1,000		
	Delete mortar net	plug	1,000			-1,000		
	Change pre-engineered metal building to wood-framed structure	plug	7,500				-7,500	
	Reduce shingle weight	plug	3,000				-3,000	
	Substitute vinyl for metal panels at canopies	plug	4,000				-4,000	
	Defer canopy system: 1,044 sf x \$15	plug	15,660				-15,660	
	Defer canopy system: 300 sf x \$20	plug	6,000				-6,000	
	Defer canopy system: 80 sf x \$30	plug	2,400				-2,400	
	Replace tower aluminum windows with Anderson	plug	1,200			-1,200		
	Replace Anderson windows with premium vinyl windows	lezzer	2,000			-2,000		
	Change all vinyl to horizontal runs	sub	1,600			-1,600		
	Change stainless steel flashing at masonry to copper	sub	1,000			-1,000		
	Delete spray-on waterproofing at masonry	sub	4,000			-4,000		
	Reduce tower height by 6'-0"	plug	3,400				-3,400	Cannot be taken with "Eliminate tower"
	Eliminate tower	plug	14,900				-14,900	
	Replace rubber roof at metal building with metal roof	plug	7,500				-7,500	
	Change EPDM from 60 mils to 45 mils	plug	3,000				-3,000	
	Eliminate transom and sidelights above entry vestibule	plug	2,400				-2,400	
	Eliminate type "D" gym windows	plug	1,100				-1,100	
	Reduce ceiling gym height from 20' to 16'	plug	6,200				-6,200	
	Simplify gym fascia detailing	plug	1,800				-1,800	
Interiors								
	Replace athletic flooring with VCT		27,520		-27,520			
	Replace GWB at underside of trusses with FR paper		5,900		-5,900			
	Delete sidelights at classroom entrances	plug	1,500				-1,500	
	Replace sloped ceiling in Conference Room 102 with flat ACT		300			-300		
	Substitute sealed concrete in lieu of VCT in multipurpose room	csm	3,800				-3,800	
	Delete recessed entrance mat	csm	2,500				-2,500	
	Defer specified casework in rooms 102, 103, & 1/2 of 106	plug	11,400			-11,400		Based on more expensive cabinets
	Change cabinet grade to residential manufactured wood cabinets	plug	17,000			-17,000		This will reduce the above item if accepted
	Delete VCT floor patterns in corridors	sub	500			-500		
	Delete overhead rolling grille at kitchen	plug	2,800			-2,800		
Fire Protection								
	None							
Plumbing								
	Delete six (of seven) sinks in classrooms	plug	7,200			-7,200		One remains at kindergarten

Figure 1-2: Alexander Building Construction V.E. Tracking Report (ABC-VE)

Throughout the course of the entire project, this report is maintained and through continuous Value Enhancement, any opportunity to reduce overall project cost while maintaining project quality is entered into the table and evaluated for implementation.

CONSTRUCTION COST SUMMARY	
Budget Construction Cost (10/13/06 Estimate):	
Miscellaneous Indirects	455,270
MEP	447,600
Sitework	170,140
Structure	495,255
Finishes	217,565
Total Construction Cost (10/13/06 Estimate)	<u>1,785,830</u>
Current Construction Cost (2/27/07):	
Miscellaneous Indirects	406,625
MEP	442,580
Sitework	250,485
Structure	646,706
Finishes	224,169
Total Construction Cost (2/27/07):	<u>1,970,565</u>
Current Construction Overage (B-A)	184,735
Accepted VE Items	-33,420
Revised Construction Price with accepted VE items (B+D)	1,937,145
Revised Construction Overage (E-A)	151,315

Figure 1-3: Construction Cost Summary

As shown in Figure 1-3, the Construction Cost Summary that is found on the cover sheet of the report, will calculate the revised Construction Overage or Savings 'Real-Time' based on the Accepted Value Engineering Items and report the revised Construction Overage or Savings. This is a product of the content included in the detail on the following pages of the report.

Utilizing the Value Engineering Approach described above, the Parkland High School Project identified items totaling nearly \$6 Million in total project cost reduction. A detailed listing of these items is provided in the following pages of this section.

New Parkland High School		Value
Additional suggested reductions to be deleted from base bid documents:		
1. Masonry	(This item is substantially over the PlanCon budget. Suggestion was made by Chris Gibbs that special shapes be deleted and two colors of brick be substituted similar to the Stillwater High School design. Additional savings suggestions will be forthcoming.)	(500,000)
	Delete special shapes: utilize two-color brick	(100,000)
	Alternate details, local manufacturers, etc.	(600,000)
	Additional suggestions follow in j "Alternates"	
	The shotcrete alternate pool is suggested to replace the cast-in-place design	(100,000)
	Delete the ceramic tile, excepting lane markings (Ceramic tile shall be an Add Alternate)	
	Acoustic panels hanging over the pool (No Parkland at a lower standard than gymnasium)	
3. Terrazzo	One color in secondary corridors with be at first floor and throughout entire second floor	
4. Field House	Utilize the urethane flooring system per schools. (The drawings indicate a plywood sleepers with a urethane top.) Delete adjoining gym corridor and use VCT	
5. Spray Fireproofing	Areas where RBA/ATS&R have eliminated fireproofing subsequent to the drawings (Note: Additional areas may be added)	
6. Balconies	Utilize precast concrete balconies cast-in-place at pool, gym, and auditorium	
7. Misc. Metals	Reductions to the miscellaneous iron/ornamental iron budget (Note that this line item is valued at \$1.2 million.)	
	Eliminate catwalks not servicing theatrical lighting (as designed, system is estimated at \$300,000)	(100,000)
	Simplify stair details, handrails, control joint covers, etc.	(100,000)
8. Concrete	Connect footings for auditorium balcony: deduct if columns at same location do not extend to mezzanine.	(50,000)
	Use thickened slabs/haunches on all interior walls. Eliminate short 10" high to 2'-6" high concrete interior foundation walls and use an additional course of block doweled to haunch.	(225,000)
	Reduce perimeter foundation walls by 1'-0" to provide for 36" minimum frost protection in lieu of 48".	(150,000)
	Major retaining wall foundation reductions.	(200,000)
	(Significant additional savings will be realized if footing size could be reduced. We have some specific ideas on those walls which we will share with you and ATS&R.)	
9. Ceramic Tile	Further reductions: Eliminate additional ceramic tile from the base bid (i.e., use epoxy paint in classroom bathrooms)	(125,000)
10. Kitchen	Omit "future equipment" added to budget and additional equipment	(30,000)
11. Value of architectural alternate manufacturers		(200,000)
12. Value of mechanical alternate manufacturers/alternate systems		(100,000)
13. Value of electrical alternate manufacturers/alternate systems (i.e., fire alarm conduit, alternate devices, etc./ballasts)		(100,000)
		(400,000)
14. Simplify roof blocking details and coping design at roof edge		(35,000)
	Subtotal	(\$2,645,000)

Miscellaneous Additional Base Bid Reductions:

1.	Utilize 1/4" terrazzo in lieu of 3/8" (Roman Mosaic installs this thickness 95% of the time)	(75,000)
2.	Delete shop paint on structural steel	(30,000)
3.	Delete lightning protection system (Not in use on any other Parkland Schools)	(125,000)
4.	Performance Gymnasium/Auditorium – Reduce the acoustic panels to a minimum standard	(30,000)
	Subtotal	(\$260,000)
	Total	(\$2,905,000)

(Note: Scoreboards and the Acoustic Shell have been deleted from the Base Bid Estimate)

More Suggested Alternates:

1.	Field House	Delete the two-station field house	(\$1,000,000)
2.	Floor Finishes	a. Provide VCT flooring vs. terrazzo in all academic corridors and stairs.	(500,000)
		b. Provide VCT flooring vs. terrazzo in the cafeteria	(200,000)
		c. Alternate gym floor in performance gym	(25,000)

More suggested Alternates (Cont.):

3.	Walls	a. Provide epoxy paint, scored CM ground face block, all academi (brick bands retained); or	(500,000)
		b. Provide epoxy paint standard ground face block (all academi bands retained)	
		c. Provide epoxy paint instead bathrooms except auditorium	
4.	Auditorium	a. Expandable, redesign for	
		b. (Note: The following simplifications could be done in addition to the above or as a stand-alone item):	(250,000)
		Significant additional simplifications in lighting, ceiling, wall, Floor and glass finishes. Partial rigging, pipe grid deleted at black box; standard acoustic clouds in lieu of wooden ceiling, and balcony seating added later.	
5.	Ceilings	Utilize quality 2'x2' ceilings in main corridors in lieu of Alcan Ceilings. (AHB is concerned about accessibility in addition to First cost.)	(30,000)
6.	Delete Skylight	Vaulted roof at cafeteria in lieu of skylight	(35,000)
7.	Single Wall Lockers	Utilize single wall lockers	(30,000)
8.	Natorium	Add folding bleachers later; fixed seating would be provided for a portion (250 persons), assuming the precast/lower balcony scheme can be designed	(30,000)

Total* (\$2,750,000)

* Exclusive of Auditorium Redesign and with Scored CMU/Brick Band Secondary Corridors

Additional Items:

1.	Add scoreboards	30,000
2.	Add acoustic shell	125,000
3.	Delete the brick bands in secondary corridors	(120,000)

Mechanical/plumbing (Other than alternate manufacturers/systems)

1.	Add the air conditioning for the field house	50,000
2.	Delete the glycol in the chilled water system	(30,000)
3.	Delete the flush valve sensors and faucet sensors	(20,000)
4.	Delete occupancy HVAC/lighting sensors – Classrooms only	(40,000)

CHANGE ORDER MANAGEMENT

Change Order Management and project cost control begins long before the design is complete and construction begins in the field.

A successful effort is a result of multiple activities performed throughout the project. Later in this section, a detailed explanation of Alexander's Change Order Management Approach is described. Alexander's experiences have proved that effective project cost containment begins during the preconstruction phase with an emphasis placed on accurate and timely cost estimating. This begins with a thorough understanding of the intended building use and close and constant communication with the owner and design professionals as the design is developed.

LINE	SYMBOL DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
000000	GENERAL EXPENSE				
000100	General		1	42,112.00	42,112.00
000200	General Contingency		1	2,796.00	2,796.00
000300	GENERAL EXPENSE SUBTOTAL				44,908.00
000400	CONSTRUCTION				
000401	Building Construction		1	7,600.00	7,600.00
000402	Mechanical/Electrical		1	1,000.00	1,000.00
000403	Plumbing		1	1,000.00	1,000.00
000404	CONSTRUCTION SUBTOTAL				9,600.00
000500	RELIANCE FUND				
000501	Subcontractor		1	11,700.00	11,700.00
000502	MANAGEMENT FEE SUBTOTAL				11,700.00

In order to contain the project cost, we provide multiple estimates of increasing detail as the project's design becomes more defined. We can develop an initial budget estimate based on square footages and historical data, and at various points in the design process we will prepare parameter estimates based on the most current progress prints. The budget and parameter estimates are done in-house.

When sufficient design documents exist, we will test the marketplace and obtain input from contractors and suppliers.

The 30% and 60% design efforts need to focus not only on the information that is provided in the design documents, but also on the information that is yet to be documented. It is these potential "gaps" in estimates that can contribute to subcontractor bids coming in over the final Control Estimate. During the development of each cost estimate, a thorough Value Engineering evaluation will occur.

Through the efforts of our team of preconstruction professionals, we produce detailed quantity surveys and estimates on a regular basis throughout the preconstruction phase. The initial cost model estimate we establish, based on conceptual design documents, will serve as a basis for monitoring the progress of the design, evaluation of the scope of work and value engineering alternatives. This monitoring of project changes and documentation continues through to the development of the project Control Estimate. All of our estimates will contain a detailed cost breakdown for the various trade contractors' work.

COST ESTIMATING ACTIVITIES INCLUDE:

- Develop a cost model estimate
- Prepare cost estimate from schematic design documents (SCASD 30%)
- Monitor design development and price changes to the scope of work
- Prepare cost estimate at completion of design development phase (SCASD 60%)
- Provide detailed quantity surveys and cost estimates to project team
- Monitor market conditions
- Prepare control estimate at 90% completion of construction documents

At Alexander, constructability is recognized as a key component of quality, driver of cost (and potential Change Orders) and is a significant element of our preconstruction process. To this point, we will perform detailed constructability analyses at agreed upon milestones of design. Our recommendations will be presented as a bound document and formally reviewed with the entire team (a copy of the Waynesboro School District Constructability Review, dated August 23, 2006 is included at the end of this section). Alexander's focus on constructability begins in the initial stages of preconstruction where certain individuals have responsibility for specific areas of construction. These areas of expertise include the following:

- Sitework
- Structure
- Exterior Envelope
- Elevators
- Mechanical and Electrical

Individuals assigned to these major systems are responsible for interaction with specialty trade contractors, document review, productivity analysis, materials data, and maintenance of checklists for design review.

The project manager and lead estimator will take the lead in each constructability review. Their expertise will be supplemented by the in-house quality review team, which includes the specialists referenced above and the superintendent, whose involvement in issues of schedule and logistics are critical in any constructability review. This review is formalized in the Constructability Review Report and is then supplemented during the regular team meetings. Throughout the preconstruction phase, constructability review will provide continuous input to the project team, advising on:

- Logistics
- Material Selection
- Equipment Selection
- Document Completeness
- Systems Interaction
- Potential Conflicts
- Jurisdiction

The quality review team personnel are available at all times during the course of design to consult on specific issues when the project manager or lead estimator considers it appropriate.



Our active approach to document review minimizes re-design and encourages consideration of alternatives at the earliest possible point in project planning. At each milestone stage of design, the prior Constructability Review is evaluated line-by-line and each item confirmed to have been addressed on the contract documents prior to moving forward with design. Finally, prior to bid documents being issued to the contractor community, the Construction Documents are evaluated against the final Constructability Review to ensure all items have been incorporated into the design.

We will proceed with the bidding process as design documents are completed. We will competitively bid all phases of the work. The Owner may participate in the bidding process to whatever extent desired. That process includes:

- Developing the bidders list
- Pre-qualifying the bidders
- Generating interest among the trades
- Preparing the bid packages
- Receiving, reviewing, analyzing and tabulating bids

The list of potential bidders for each work package will be drawn from this trade contractor/ vendor file and from out-of-market sources for specialty items relating directly to the specific needs of this project.

ALEXANDER APPROACH TO CHANGE ORDER ANALYSIS

The change order analysis process begins prior to the first Change Order request submission - with the requirements that are set forth in the front end documents for Change Order Requests. Alexander will work in an integrative manner with the Architect to develop a front end requirement that allows for timely and accurate Change Order analysis during the project.

Once the first Change Order is submitted, the evaluation starts with the clear identification of the change. The Project Manager reviews the request and determines whether or not a change occurred. If it is determined a change has occurred, the project manager then provides the owner with a preliminary review of cost for the work.

As trade contractors quotes are received, they are carefully reviewed for accuracy based on the project manager's experience with fair and proper costs. When all costs are known, an itemized quote with all back-up documentation is then reviewed with the Owner in order to establish approval and/or value engineering. After approval, trade contractor amendments are issued and the Cost Event is updated so that all team members are aware of all approved changes. In isolated instances, schedule becomes an issue and an alternative approach is required. In these circumstances, agreements on hours, trades involved and subcontractor support is of paramount importance as the work can be performed on a "not-to-exceed" time and material basis. In these special cases, Alexander's on-site representative will monitor the work being performed and sign off at the end of each day on the number of hours spent performing the work.

Throughout the process, the project manager can review up-to-date job costs with the customer, either on an individual amendment basis by use of the Cost Event Detail Report or on an overall job basis by use of the Project Management Cost Report. As a result, the School District is ensured of fair costs for amendments and is fully abreast of overall job costs.

ALEXANDER

brings over 80 years of construction experience in the Central Pennsylvania marketplace to your project.

Through the years, we have compiled an extensive list of trade contractors and material suppliers for every category and size of work.

WAYNESBORO AREA HIGH SCHOOL ADDITIONS AND ALTERATIONS

The Waynesboro Area School District (WASD) project is a roughly \$40-Million project that includes renovations and additions that totaled almost 400,000 square feet of project space. Alexander's services to the School District included coordination with the architect regarding the design process, a complete constructability review and management of the construction process to ensure the structural integrity, workmanship, and adherence to design documents.

The project has incurred a fairly large number of Change Order Requests for various reasons.

- Number of Change Order Requests Submitted: 234
- Value of Change Order Requests Submitted: \$2,163,262
- Value of Change Order Requests Approved: \$359,915

The most common source of Change Orders at WASD is the General Trades Contractor. The product of these Change Order Requests has been primarily for "Unforeseen Conditions" or "Owner Requested" changes. The contractor presented over 190 Proposed CO's. Time extension requests totaling over four years and costs of almost \$900,000 have been submitted. Every change order has been reviewed by Alexander and negotiated on the behalf of the school district and at this time the changes have been approved for \$250,000 and no time extension. On the following pages of this section, you will find the detailed Change Order Summary Log for the Waynesboro Area School District Project.

Change Order Log from Waynesboro School District

PCO#	Description	Date submitted	Amount	Time Req'd	Date Reviewed By WASD (if applicable) referenced to 3/23/09	Date Work Completed/ %	*PCO Accepted/Re-submit?	Date Revised	Backup Provided?	Date Revision List Rev'd/Reviewed	Date Accepted	Approved Amount	Time Apr'd	Change Order No.	WASD Signature	Reason Code	Remarks (If no amount or time PCO is fully approved, please explain the reason why it was not approved below.)
Waynesboro Area High School Prospective Change Order Status Log																	
Lobar Associates																	
None #1																	
None #2																	
None #3	Revised Phasing Plan	8/23/07	\$5.00											G-5		C	Voided
1	Revised Scope of Work on E&S	2/28/07	\$6,343.80				R										Voided
2	Add Terra Fence	2/28/07	\$13,258.40				R										Rejected
3	Crack for deletion of road	2/23/07	\$27,577.75				R										Voided
4	Add powder coating to coating	2/27/07	\$25,712.72				R										Voided
5	Additional Shoring lost shown	4/16/07	\$84,002.01				R										Denied
6	Crack for changing finishes to		\$1,400.00														Voided
7	Changes to Staff Dining Area	5/21/07	\$2,288.88	0			A		Y			\$2,288.88	0	G-1	8/21/07	O	
8	Remove and install yard drains	5/21/07	\$6,873.22	0			A		Y			\$6,873.22	0	G-8	1/20/08	A/E	
9	Add doors per CSR 12 and	5/21/07	\$4,758.38	0			A		Y			\$4,758.38	0	G-3	8/13/07	A/E	
10	Revised Phasing Plan (2)	10/15/07	\$6.00	0			A		Y			\$6.00	0	G-7	10/31/07	C	CO Not held.
11	Changes per CSR-24	7/12/07	\$14,003.00				R										Denied
12	Changes made to soffitor re-	7/18/07	\$9,351.53				A		Y								Voided
13	Add steel Linets	7/23/07	\$1,259.15	0			A		Y			\$1,259.15	0	G-4	2/15/07	A/E	Not Used
14	Change asphalt to concrete at	7/23/07	\$2,831.58	0			A		Y			\$2,831.58	0	G-40	2/15/08	O	
15	Add for Blind Side install of	7/27/08	\$4,466.44	4			A		Y			\$4,466.44	0	G-17	4/7/08	C	
16	Changes made and work added	7/30/07	\$14,265.67				R										Voided
17	Add for 10' #10 Rebar/rod	7/30/07	\$6,816.82	0			R	1/22/08	Y			\$6,816.82	0	G-18	4/7/08	A/E	original proposal not held. (Proving's)
18	Struct concrete changes	7/30/07	\$5,037.87	10			R	3/14/08	Y			\$5,037.87	0	G-9	2/15/08	A/E	
19	Provide good per work	7/30/07	\$1,284.68	0			R		N			\$758.37	0	G-10	2/20/08	U	
20	Changes to Shop Drains	7/30/07	\$1,556.01				R										Denied
21	Subst Ecocon Brick		\$187,000.00	0			R	8/6/07	N			\$170,000.00	0	G-4	8/23/07	O	
22	Accept Brick submittal	7/30/07	\$3,000.00	0	7/7/08		A					\$3,000.00	0	G-2	8/20/07	O	
23	Patch CMU in seating	10/12/07	\$26,289.69	0			R					\$26,289.69	0	G-11	2/20/08	A/E	
24	Dog box per CSR 26	10/12/07	\$1,741.12	0			R					\$0.00	0	-	-		Included with PCO #50. Voided
25	Changes to rain garden	10/12/07	\$28,159.45	0			R		Y	1/8/08		\$28,023.00	0	G-12	2/20/08	A/E	
26	Reching Foundations Work	10/17/07	\$33,270.50				R										Denied
27	Rein water conductors to rain	12/7/07	\$6,374.28	0			R	1/15/08	Y			\$6,144.55	0	G-13	2/20/08	A/E	
28	Pricing associated with CSR-35	11/16/07	\$9,476.28	0			R		Y			\$9,476.28	0	G-8	2/20/08	A/E	
29	Install Add Loading Dock Hand	11/19/07	\$2,742.80	0			R		Y			\$2,742.80	0	G-14	4/7/08	A/E	
30	Correct Steel in SE corner of	11/19/07	\$1,821.19	100			R		Y			\$1,821.19	0	G-19	4/7/08	A/E	
31	Additional length of beams in	11/19/07	\$1,556.25	100			R		Y			\$1,556.25	0	G-15	4/7/08	A/E	
32	Add steel per RFT's 585/175	11/19/07	\$2,344.58	100			R		Y			\$2,344.58	0	G-20	4/7/08	A/E	
33																	Not Used
34	Reduce Locker Regino in A322	12/13/07	\$2,240.28	100			R		Y			\$2,240.28	0	G-16	4/7/08	O	
35	Steel changes per CSR 36 and	1/4/08	\$4,285.24	0			A		Y			\$4,285.24	0	G-21	2/15/08	U	
36	Additional Work for Hens and	2/15/08	\$5,477.24	10			R		Y			\$5,477.24	0	G-22	2/15/08	U	
37	Provide Add'l Hand Dryers and	1/8/08	\$6,375.37	100			R		Y			\$6,375.37	0	G-21	4/7/07	A/E	
38	Work per CSR 39 in u-24	1/13/08	\$2,064.92	0			R		Y			\$0.00	0				Included with PCO #50
39	Lintels over Louvers in Mech	1/27/08	\$2,425.40	0			R	4/14/08	N			\$2,425.40	0	G-28	2/15/08	C	Orig proposal not held.

Waynesboro Area High School
Prospective Change Order Status Log

PCD #	Description	Date submitted	Amount	Time Req'd	Date Reviewed By WAD (if applicable) subsequent to 3/23/09	Date Work Completed by TM	*PCD Accepted/Resubmit?	Date Revised	Backup Provided?	Date Revision Last Row/Reviewed	Date Accepted	Approved Amount	Time App'd	Change Order No.	WAD Signature Date	Reason Code	Remarks (if it is about an item PCD's table has been updated for, please specify whether it is approved, then resubmitted or not)
40	Lower ceiling service doors in	2/25/08	(\$1,225.88)	0	8/27/06	?	R	10/9/06	Y	8/24/08	10/27/06	\$1,385.20	0	G-04	2/13/06	O	No original PCD. Lobar to provide copy.
41	Provide carbon dioxide vent	2/11/08	\$677.89	0					Y								Not used/Not used
42	Credit for roll up gates	2/12/08	(\$5,544.48)	0					Y								
43	Changes made to drawings	2/12/08	\$1,845.07	0			A		Y					G-37	5/13/06	O	
44	Bring the roof to the structural	2/25/08	\$7,854.24	188					Y								Denied
45	Sign Change from Type 5 to 6A	2/25/08	\$4,652.48	168			A		N					G-36	5/13/06	O	
46	Steel beams per RFI 212	2/25/08	\$4,823.39	15			A		Y					G-32	4/7/06	C	
47	TSM Present wall changes	2/25/08	\$27,947.27	30			A		Y					G-34	5/13/06	A/E	
48	Revisions to CSR 35: Mezzanine	3/5/06	\$4,191.45	8			A		Y					G-33	5/13/06	A/E	
49	ASK 40 Pricing	3/6/06	\$5,451.08	6			A		Y					G-32	5/13/06	A/E	
50	Change from carpet to VCT in	3/17/08	\$947.49	3	8/24/06	?	A		Y	11/5/08	11/5/08	\$0.00	0	G-43	2/13/06	O	Accepted as a "no cost" change. Awaiting
51	CR 42	3/17/08	\$2,393.93	6					Y					G-30	5/13/06	C	
52	Wall inlay per CSR-40	3/20/08	\$1,598.68	1			A		Y					G-29	5/13/06	U	
53	Add handrail metal rail	3/24/08	\$13,915.09	10			A		Y					G-38	5/13/06	A/E	
54	Credit for wood floor repair w/	3/24/08	\$11,033.55	0			A		N					G-27	5/13/06	A/E	
55	Cost Quotes in hand pumps cost	3/21/08	\$2,752.23	3			A		N					G-26	5/13/06	A/E	
56	Changes to scope of work per	4/3/06	\$13,122.31	5			A		Y					G-35	5/13/06	A/E	
57	Add for Color selection changes	4/3/06	\$18,541.28	20					Y								Not/denied
58	Re-location of piping	4/15/08	\$0.00	0			A		Y					G-24	5/13/06	A/E	Costs of PCD's 24 and 38 used to offset this
59	Steel for LITTLE FBI	4/15/08	\$2,073.94	4			A		Y					G-41	10/9/06	A/E	
60	Change minor site	4/22/08	\$347.45	2	8/27/06	?	R	10/9/06	Y	8/24/08	10/27/06	\$564.59	0	G-46	2/13/06	A/E	Board Rate 1 Cost to EIT's
61	Architectural Work in rooms	5/2/06	\$5,615.52						Y								Not/denied????
62	Work associated with CSR 30	5/9/06	\$17,390.74	25	8/27/06	?	R	10/9/06	Y	8/24/08	10/27/06	\$16,430.02	0	G-37	2/13/06	U	Board Rate 1
63	Change hardware on door	5/11/08	\$2,045.14	3	8/27/06	?	R	10/9/06	Y	8/24/08	10/27/06	\$2,825.03	0	G-48	2/13/06	A/E	Board Rate 1 No bill cost.
64	Additional work not on bill mat.	5/12/08	\$243.09	1	8/23/06	?	A		N					G-43	10/9/06	A/E	
65	Re-design of handrail at high	5/15/08	\$5,755.41	4			A		Y					G-43	10/9/06	A/E	
66	Fasten metal frame to	5/15/06	\$8,888.06	2	8/23/06	?	R	10/9/06	n/a	8/24/08	10/27/06	\$2,851.46	0	G-49	2/13/06	U	Board Rate 1
67	Additional work per ask 49 and	5/15/06	\$1,138.16	2	8/23/06	?	A		Y					G-44	10/9/06	A/E	
68	Pricing for CSR-54 Lette change	5/29/08	\$543.55	6	8/23/06	?	A		Y					G-45	10/9/06	A/E	
69	Add for joint that were short by	5/29/08	\$1,582.52	3	8/23/06	?	A		Y					G-46	10/9/06	A/E	
70	Grade beam design changes	5/29/08	\$4,091.95	3	8/23/06	?	A		N					G-47	10/9/06	U	
71	Install revised up wall #3	6/3/06	\$1,214.44	15	8/23/06	?	R	11/14/06	Y								reversible wall #3. Originally \$2234.64. Current proposal is \$5040.52. Met with EIT and Lobar on 1/28/06. Lobar has proposed an alternative to the design basis as SO has concerns re functionality of 3'x7' panel door. EIT to review and respond.

S:\Proposals\2009\State College\State College Area School District\Section 2 - Change Order Management\WAD\PCD Log 5-14-09

ALEXANDER

Waynesboro Area High School
Prospective Change Order Status Log

PCD #	Description	Date submitted	Amount	Time Req'd	Date Reviewed By WAD (if applicable) subsequent to 3/23/09	Date Work Completed by TM	*PCD Accepted/Resubmit?	Date Revised	Backup Provided?	Date Revision Last Row/Reviewed	Date Accepted	Approved Amount	Time App'd	Change Order No.	WAD Signature Date	Reason Code	Remarks (if it is about an item PCD's table has been updated for, please specify whether it is approved, then resubmitted or not)	
72	Termino changes per revised	8/27/06	\$14,512.62	18	8/23/06	?	R	10/29/06	Y	11/5/06	11/5/06	\$9,363.81	0	G-49	1/23/06		Revised and resubmit with at time labor rate. Not used/Not used	
73																		
74	Demo subgrade in various	6/12/08	\$9,594.32	6	8/23/06	?	R	10/29/06	Y	8/24/08	10/29/06	\$9,334.83	0	G-50	1/23/06		Revised first seen w/ Lobar 10/27	
75	Removal of VCT and carpet in	6/12/08	\$26,122.96	0					Y									Revised 11/28/06, replaced by item PCD
76	Pricing associated with CSR 30	6/22/08	\$4,556.71	3	8/23/06	?	R	10/9/06	Y	8/24/08	10/27/06	\$4,388.71	0	G-50	2/13/06	A/E	Board Rate 1 \$510.15 cost.	
77	Install aluminum trim per RFI	7/14/08	\$1,780.29	0	8/24/06	?	R	10/9/06	Y	10/24/08	11/19/06	\$989.89	0	G-51	1/23/06	U	Changed Carpenter hours	
78	Add inlets per RFI 234	7/14/08	\$1,616.12	0	8/24/06	?	R	10/9/06	Y	10/27/06	10/27/06	\$1,433.97	0	G-51	2/13/06	A/E	Board Rate 2. No bill cost.	
79	Add work for steel changes in	7/17/08	\$5,494.81	0	8/24/06	?	R	10/9/06	Y	10/27/06	11/5/06	\$5,494.81	0	G-52	1/23/06	A/E	Copy of original to be provided along with	
80	Add signage changes	7/16/08	\$1,225.87	0	8/24/06	?	R	N/A: 11/18	N	10/27/06	10/27/06	\$1,130.52	0	G-53	1/23/06	O	Board Rate 1. N/U road 11/13/06	
81	Door changes for 5B.2	7/22/08	\$2,357.88	3	8/24/06	?	R	10/9/06	Y	11/5/06	11/5/06	\$2,571.66	0	G-54	1/23/06		labor not reduced per 8/24 agreement. from	
82	Patch wall in various rooms	8/12/08	\$2,070.25	3	8/24/06	6/26/08	R	10/29/06	N	11/5/06	11/5/06	\$2,797.59	0	G-55	1/23/06	U	Provide b/c and remove builder's flat. RMR, void 11/5	
83	Patch plaster in various rooms	8/12/08	\$2,702.10	3	8/24/06	6/29/08	R			11/5/06	11/5/06	\$0.00					void 11/5	
84	Patch plaster in various rooms	8/12/08	\$2,679.10	3	8/24/06	7/11/08	R		N	11/5/06	11/5/06	\$0.00					void 11/5	
85	Run east wall of Art Room	8/12/08	\$869.66	1	8/24/06	6/27/08	R	10/1/06	Y	11/5/06	11/5/06	\$1,155.73	0	G-56	1/23/06	U	Combine and resubmit #85-#91. Combined as #85 with #85	
86	Run west wall of Art Room	8/12/08	\$863.33	2	8/24/06	6/27/08	R	10/1/06	N	11/5/06	11/5/06	\$0.00					Combine and resubmit #85-#91. Combined void 11/5	
87	IRRI south wall, rm C366	8/12/08	\$891.15	2	8/24/06	6/29/08	R	10/1/06	N	11/5/06	11/5/06	\$0.00					void 11/5	
88	Run 3 walls, rm C152	8/12/08	\$3,064.21	3	8/24/06	6/30/08	R	10/1/06	Y/N	11/5/06	11/5/06	\$2,756.80	0	G-57	1/23/06	U	Combine and resubmit #85-#91; dumpster charges collected on #14	
89	Run 3 walls, rm C31A, Art Rm	8/12/08	\$1,631.45	4	8/24/06	7/11/08	R	10/1/06	Y/N	11/5/06	11/5/06	\$1,328.08	0	G-58	1/23/06	U	Combine and resubmit #85-#91; dumpster charges collected on #14	
90	Laminate existing plaster walls,	8/12/08	\$937.94	2	8/24/06	6/30/08	R	10/1/06	Y/N	11/5/06	11/5/06	\$668.58	0	G-59	1/23/06	U	Combine and resubmit #85-#91; dumpster charges collected on #14	
91	Remove out MW doors in Rm C320	8/12/08	\$1,528.20	3	8/24/06	7/2/08	R	10/1/06	N	11/5/06	11/5/06	\$1,253.08	0	G-60	1/23/06	U	Combine and resubmit #85-#91; dumpster	
92					8/24/06					11/5/06								Not used
93	lay new metal decking in	8/12/08	\$4,925.86	4	8/24/06	7/18/08	R	10/1/06	N	11/5/06	11/5/06	\$4,850.04	0	G-61	1/23/06	U	R&I with b/u and original. R/U road 11	
94	Change wall from CMU to	8/14/08	\$5,334.36	3	8/24/06	7/24/08	R			11/5/06	11/5/06	\$0.00					R/C change	
95	New Chase wall in Rm D434	8/14/08		3	8/24/06		R	11/14/06	Y	11/5/06	11/5/06	\$566.96	0	G-62	1/23/06	A/E	Resubmit. Nothing held. RMR 11/14/08	
96	Build new chase in D446	8/14/08	\$505.76	1	8/24/06	7/24/08	R	10/29/06	Y	11/5/06	11/5/06	\$523.81	0	G-63	1/23/06	A/E	R&I. Road 11/14/08	
97	Close walls to door in C166A	8/14/08	\$332.34	1	8/24/06	7/29/08	R			11/5/06	11/5/06	\$0.00					R/C change	
98	Close walls to door in C166A	8/14/08	\$403.51	1	8/24/06	7/29/08	R			11/5/06	11/5/06	\$0.00					R/C change	
99	Close walls to door in C166A	8/14/08	\$441.88	1	8/24/06	7/29/08	R			11/5/06	11/5/06	\$0.00					R/C change	
100	Close walls to door in C166A	8/14/08	\$403.51	1	8/24/06	7/29/08	R			11/5/06	11/5/06	\$0.00					R/C change	
101	Place glass plate on down at	8/14/08	\$244.14	1	8/24/06		R	10/29/06	N/A	11/5/06	11/5/06	\$244.14	0	G-64	1/23/06	O	CR. Road from 5/21/08 approved on	
102	Place 5' chase base in Bay of 2'	8/14/08	\$1,735.53	3	8/24/06		R	11/18/2006	N	11/5/06	1/23/06	\$1,203.78	0	G-66	3/14/09	U	Accepted site rate as well for any future	
103	Close wall in w/c closet D412	8/14/08	\$472.26	1	8/24/06	7/29/08	R			11/5/06	11/5/06	\$0.00					void 11/5	
104	Close wall in w/c closet C37A	8/14/08	\$295.33	1	8/24/06		R			11/5/06	11/5/06	\$0.00					void 11/5	
105	Close wall in w/c closet D418A	8/14/08	\$954.56	1	8/24/06	7/29/08	R			11/5/06	11/5/06	\$0.00					void 11/5	
106	Plaster patch wall in door D412	8/14/08	\$248.07	1	8/24/06		R	10/29/06	N	11/5/06	11/5/06	\$208.52	0	G-65	1/23/06	U	Combine and resubmit #106 and #105 as	
107	Close wall in w/c closet C310	8/14/08	\$353.42	1	8/24/06	7/21/08	R			11/5/06	11/5/06	\$0.00</						

Waynesboro Area High School
Prospective Change Order Status Log

PCO #	Description	Date submitted	Amount	Time Req'd	Date Revised By WABD (if applicable) subsequent to 3/23/09	Date Work Completed %	*PCO Accepted/R equest?	Date Revised	Backup Provided?	Date Revision Last Row/Revision #	Date Accepted	Approved Amount	Time App'd	Change Order No.	WABD Signature Date	Reason Code	Remarks (if in status of Open PCO/Ready to be Opened for Appropriately Budgeted Expenses, Other (see attached notes))	
109	Change wall from CMU to	8/14/08	\$4,910.78	6	3/24/08	7/20/08	R		n	11/3/08	11/3/08	\$0.00					Void 11/3	
110	Place new steel wall between	8/14/08	\$1,258.57	3	3/24/08	7/20/08	R		n	11/3/08	11/3/08	\$0.00					Void 11/3	
111	Close wall in each closet CPWA	8/14/08	\$998.72	2	3/24/08	7/20/08	R		n	11/3/08	11/3/08	\$0.00					Void 11/3	
112	Close wall in each closet CSOB	8/14/08	\$528.66	1	3/24/08	7/20/08	R		n	11/3/08	11/3/08	\$0.00					Void 11/3	
113	Welder patch window walls in	8/14/08	\$5,032.59	4	3/24/08	7/18/08	R		n	11/3/08	11/3/08	\$0.00					Void 11/3	
114	Welder patch and window walls	8/14/08	\$2,451.06	4	3/24/08	7/28/08	R	10/29/08	n	11/3/08	11/3/08	\$1,265.93	0	G-66	1/23/09	U	Revised app for RFR. RFR. Rev'd 11/2/4	
115	Change from CMU to metal	8/14/08	\$6,446.03	10	3/24/08	7/28/08	R		n	11/3/08	11/3/08	\$0.00					Void 11/3	
116	Ceas, attic and paint existing	8/27/08	\$850.71	1	8/24/08	7/	R	10/2/08	n	11/3/08	11/3/08	\$467.21	0	G-67	1/23/09	U	No attic backup. RFR. Painting issues	
117	Remove 8" of VCT and glue	8/27/08	\$9,371.52	19	3/24/08	7/	R	10/2/08	n/a	10/24/08	10/24/08	\$8,724.24	0	G-68	1/23/09	A/E	Revision reviewed with E. Lobar submitted	
118	Remove remaining ceiling	8/27/08	\$357.54	1	3/24/08	7/27/08	R	10/2/08	n/a	10/24/08	10/24/08	\$402.10	0	G-69	1/23/09	U	Revision reviewed with E. Lobar submitted	
119	Install plates to support bracke	8/27/08	\$2,300.14	3	3/24/08	8/20/08	R	10/2/08	y	10/24/08	10/24/08	\$2,827.39	0	G-93	2/13/09	U	Revision reviewed with E. El to write up	
120																	Not held	
121	Install sloped top on lockers	9/17/08	\$1,406.81	14				10/6/08	y	11/3/08	11/3/08	\$1,991.51	0	G-88	10/9/08	O/I	28 pending w/e review to confirm number of	
122	Relocate power line at new entrance plate	9/29/08	\$95,031.20	15	11/3/08		R			11/19/2008 1/28/09 2/12/09 3/05/09 4/26/09							Alternative solution posed by AE. Awaiting revised pricing. RFR issued re 122. Following 1/28 mtg, Lobar to collect costs and resubmit for E/ABC review. 2/12 pricing to 21741.79, including temp access temp. 3/05/09 Rates improperly charged for carpenter, mason and laborer. As well improper fringes applied. RFR. 4/28/09 revised to reflect 4/15 negotiation. Currently priced at \$13664.12. Meeting in light direction, however fringes still not acceptable. RFR/AFTER receive "fringes" issue.	
123	Build chase in rm 206	10/6/08	\$922.38	2	11/3/08	8/28/08	A		y	11/3/08	11/3/08	\$928.38	0	G-94	2/13/09	U	Duplicate fees cover 8/3 123 and 124.	
124	Install new ceiling in Rm A209	10/6/08	\$884.91	2	11/3/08	8/28/08	A		y	11/3/08	11/3/08	\$794.22	0	G-70	1/23/09	A/E	Accepted 2/28/11 on 11/3. Revised to	
125	Install subfloor in C375 and	10/6/08	\$2,168.18	3	11/3/08	8/13/08	A		y	11/3/08	11/3/08	\$2,043.97	0	G-71	1/23/09	A/E	Accepted 2/24/12 on 11/3. Revised to	
126	Install former window openings	10/6/08	\$1,525.22	2	11/3/08	7/2/08	A		y	11/3/08	11/3/08	\$1,412.00	0	G-72	1/23/09	U	Accepted 12/25/12 on 11/3. Revised to	
127	Asst for ADA changes to	10/7/08	\$1,863.24	25	11/3/08	7/	R	11/29/08	y	11/29/08	11/29/08	\$1,699.49	0	G-73	1/23/09	A/E	Primer rate not accepted. RFR. Rejected	
128	Work associated with CSK 31	10/6/08	\$5,309.15	15	11/3/08		R	11/29/08	y	11/29/08	11/29/08	\$5,038.51	0	G-74	1/23/09	O	Capex rate not acceptable. Need sub fr	
129	Demo wood blocking and install metal studs per RFI 209	10/6/08	\$10,190.89	20	11/3/08		R		y	11/18/08 1/28/09 4/23/09							Rate difference to be dealt with independently. ABC to review and respond to Lobar and E re acceptability of pricing. 1/8/09 RFR with correct labor rates and fringes. 4/15 RFR with correct labor rates and fringes. 4/23/09 revised low labor's "fringes" proposal. Issue not resolved. Revision premature.	
130	Added costs for temp end.	11/4/08	\$61,058.03	35			R	1/22/09	y	11/19/2008							E/O	No back up re merit. Merit needs to be
131	Levise and work associated	10/29/08	\$2,312.57	0	11/3/08		A		n/y	11/3/08	11/3/08	\$2,391.00	0	G-75	1/23/09	U	One time acceptance of additional	
132	Subst new storage machine	10/24/08	\$5,211.65	20	11/3/08		R	11/26/2008	y	11/19/2008	1/26/09	\$5,030.24	0	G-87	3/4/09	O	Satisfactory condition received 1/23/09	
133	Apply wall trim to entrance wall	10/23/08	\$1,406.18	3	11/3/08		A		y	11/3/08	11/3/08	\$1,406.18	0	G-76	1/23/09	U	Accepted.	

S:\Proposals\2009\State College\State College Area School District\Section 2 - Change Order Management\WABD PCO Log 5-14-09



Waynesboro Area High School
Prospective Change Order Status Log

PCO #	Description	Date submitted	Amount	Time Req'd	Date Revised By WABD (if applicable) subsequent to 3/23/09	Date Work Completed %	*PCO Accepted/R equest?	Date Revised	Backup Provided?	Date Revision Last Row/Revision #	Date Accepted	Approved Amount	Time App'd	Change Order No.	WABD Signature Date	Reason Code	Remarks (if in status of Open PCO/Ready to be Opened for Appropriately Budgeted Expenses, Other (see attached notes))
134	Place caps on exposed	10/29/08	\$867.36	1	11/3/08		R	11/14/08	y	11/17/08	11/19/08	\$863.55	0	G-77	1/23/09	A/E	Accepted.
135	Replace 4" block with 8"	10/29/08	\$2,501.94	1	11/3/08		A		y	11/3/08	11/3/08	\$2,555.54	0	G-78	1/23/09	A/E	Accepted.
136	Provide CMU blocks for beam	10/29/08	\$362.05	1	11/3/08		A		y	11/3/08	11/3/08	\$362.05	0	G-79	1/23/09	A/E	Accepted.
137	Over excavate for vent pipe	10/29/08	\$245.13	3	11/3/08		A		y	11/3/08	11/3/08	\$245.13	0	G-85	1/23/09	U	Accepted.
138	Change color of kitchen side	11/4/08	\$21,182.34	20			R										Rejected/revised 11/19/08. E to provide
139																	Not held
140	Lay 7 courses of block to hite	11/3/08	\$1,387.57	4		7/14/08	A		y	11/19/08	11/19/08	\$1,387.57	0	G-80	1/23/09	U	Accepted.
141																	Not held
142	Block infill of window in stair	11/20/08	\$1,843.26	2		7/14/08	A		y	11/19/08	11/19/08	\$1,843.46	0	G-81	1/23/09	U	Accepted.
143	Change locker lock from	11/13/08	\$0.00	0			A		y	11/19/08	11/19/08	\$0.00	0	G-82	1/23/09	O	N/C change.
144	Combined trash tonnage for	11/14/08	\$574.68	0			A		y	11/19/08	11/19/08	\$574.68	0	G-83	1/23/09	U	Accepted.
145	TBM Work Associated with RFR to Conversion of JPC Room to Kitchen Dry Storage	1/11/09	\$11,928.71	7	1/28/09	12/20/08 w/	R		y	3/6/09							Issues on PCO do not match TBM ticket. Review and resubmit. 3/16/09 RFR. Correct bill time to coincide with tickets. Provide correct labor rates and fringes. 4/15 Provide correct labor rates and fringes.
146	Installation of Back Filters at	12/11/08	\$431.69	1	1/2/09	6/2/08	A		y	1/23/09	1/23/09	\$593.68	0	G-88	3/4/09	U	Contractor OVI & P removed. Sub's price
147	Ballhead Changes are CSK 18	12/11/08	\$2,436.02	10	1/28/09		R		y	3/6/09							3/6/09 rejected. This work fell by E to be
148	Provide Ballheads above	12/11/08	\$1,436.79	2	1/23/09		A		y	1/23/09	1/23/09	\$1,436.79	0	G-89	3/4/09	A/E	Work not shown on stage. E feels this is
149	Work associated with CSK 60, Rm DC401	1/11/09	\$20,724.96	12	1/28/09		A		y	3/6/09							This needs to be presented to SD for acceptance of cost. No issue with pricing. Cost seems excessive for value received. 1/8/09 Placed on hold pending decision by School District. 3/15 School District declines to do work. Void PCO.
150	Keying Changes to Elevators	12/28/08	\$6,927.18	1	1/28/09		A		y	3/6/09							This needs to be presented to SD for acceptance of cost. No issue with pricing. Cost seems excessive for value received. 1/8/09 School District declines to do the work. Void the PCO.
151	Add Ballheads in Rinkben and	1/11/09	\$6,268.50	15	2/12/09		A		y	1/28/09	1/28/09	\$6,268.50	0	G-100	3/4/09	U	Ballheads added/revised and cost saved.
152	Construct Ballheads as defined in response to RFI 323	1/11/09	\$1,883.35	2	1/28/09		A		y	3/6/09							initially rejected on premise that Lobar should have sought clarification during the prebid period. E to review this position. 1/8/09 E has reauthorized position. Accepted but RFR with correct labor and fringes. 4/15 Done.

S:\Proposals\2009\State College\State College Area School District\Section 2 - Change Order Management\WABD PCO Log 5-14-09



Waynesboro Area High School
Prospective Change Order Status Log

PCO #	Description	Date submitted	Amount	Time Req'd	Date Reviewed By WABD (if applicable) subsequent to 3/23/09	Date Work Completed %	PCO Accepted/Re-submit?	Date Revised	Backup Provided?	Date Revision Last Rev'd/Reviewed	Date Accepted	Approved Amount	Time App'd	Change Order No.	WABD Signature Date	Reason Code	Remarks (if not all items PCO'd, list items removed from scope and/or other notes. Other see attached items)
150	Install Wall to Window Closure Panel 25 Locations	2/20/09	\$6,070.74	5	3/23/09		R	3/23/09	Y	3/6/09							Initially rejected on premise that Labor should have sought clarification during the prebid period. Wall closure is shown on the drawings. It to review this position. 3/6/09 It has provided a new solution. Labor to RMR. 3/23 submission is for 2500.25 4/15/09 Rejected during negotiation with Labor.
154	Changes to Media Center	3/25/09	-\$4,703.46	0	3/6/09		R		Y	4/24/09							3/06 Roman's credit deemed low. Labor and
155	Steel Addition for operable partition in stacked position	2/9/09	\$8,133.49	5	3/6/09		R		Y	4/24/09							Labor asked to provide alternative quote for metal work. Came in higher. Accepted Myer's quote. 4/15 Labor to replace with correct labor and fittings. 4/24/09 Revised low Labor's 4/23/09 proposal re "fitting". These are still under discussion. Revision premature.
156	Remove changes Lobby and Vestibule B200C, B200D and into old Storage Room	2/6/09	-\$6,333.07	5	3/6/09		R		Y								Roman's credit deemed low. Labor and ETI checked against SOV's. BBR, BBR, 4/23 BBR with SOV rates and correct labor and fittings rate.
157	Temp Storage for 2 for Test	2/9/09	\$2,663.50	0	3/6/09		R		Y								None pending further clarification. 4/15
158	Re-tiling at Rm 2407	2/9/09	\$2,319.46	3	3/6/09		R		Y	3/2/09	\$2,319.46	0	G-102	3/2/09	U	None pending further clarification. 4/15	
159	Lower soffits in Media	2/10/09	\$4,407.33	4	3/6/09		R		N								This is on hold pending the finding of the
160	Modify Sound Panels per CSR	2/12/09	\$2,062.33	3	3/6/09		R		N								Work may have exceeded authorized scope
161	Support modification of dust collection system	2/23/09	\$6,860.20	6	3/6/09		R		Y	4/24/09							0/06 Accepted. However, appropriate rates and fittings applied. BBR, 4/15 BBR with correct labor and fittings rates. 4/24/09 Revised low Labor's 4/23/09 proposal re "fitting". Also removed landscaping costs. These are still under discussion. Revision 3/06 TBM hours improperly added. BBR.
162	tilt floor at Rm 2407 end	2/24/09	\$2,704.33	3	3/6/09	2/2/09	R		Y								3/06 BBR. Provide credit for original
163	Remove plaster at exterior	2/24/09	\$2,383.62	3	3/6/09		R		Y								3/06 BBR. Provide plaster rates and fittings.
163	CRU tilt per Rm 332	2/24/09	\$2,569.84	3	3/6/09	2/10/09	R		Y								3/06 BBR. Provide plaster rates and fittings.
166	Install Drop Ceiling in vestibule between A237 and Vest. A100B	2/25/09	\$433.62	2	3/6/09		R		Y	4/15/09	\$433.62	0	G-106	5/7/09	U	No instructions provided to do this work. Not shown on drawings. Even if OK, there should be some credit for a materials taking standard. BBR 4/15/09 Accepted. Confirm need/desire for such work before proceeding in future.	
167	Provide additional bulkhead	2/25/09	\$1,255.37	1	3/6/09	10/16/08	A		Y	3/6/09	\$1,255.37	0	G-103	3/19/09	U	Field Directive #66	
168	Build soffits and chases in	2/25/09	\$2,350.23	2	3/6/09	10/13/08	A		Y	3/6/09	\$2,350.23	0	G-104	3/19/09	U	Field directives #65, 63, 65, 64 NOTE: This	
169	Provide Bulkhead between	2/25/09	\$2,245.78	3	3/6/09	10/16/08	A		Y	3/6/09	\$2,245.78	0	G-105	3/19/09	U		

S:\Proposals\2009\State College\State College Area School District\Section 2 - Change Order Management\WABD PCO Log 5-14-09



Waynesboro Area High School
Prospective Change Order Status Log

PCO #	Description	Date submitted	Amount	Time Req'd	Date Reviewed By WABD (if applicable) subsequent to 3/23/09	Date Work Completed %	PCO Accepted/Re-submit?	Date Revised	Backup Provided?	Date Revision Last Rev'd/Reviewed	Date Accepted	Approved Amount	Time App'd	Change Order No.	WABD Signature Date	Reason Code	Remarks (if not all items PCO'd, list items removed from scope and/or other notes. Other see attached items)
170	Perform "out of sequence" work per CSR 74	2/26/09	\$3,435.59	4	3/6/09		R	3/30/09	Y				0				3/06 Note: See note in PCO 168 above. Same situation. Original proposal denied on basis of "out of sequence work" not being comparable. Accepted as valid work at this 2/8 meeting. Revised quote read on 3/20 as \$2500.00. Appropriate burden needs to be applied. 4/15 BBR with no Novinger/foreman rate. Joanneman only. Revise labor fittings and burden.
171	Additional Partition height	3/23/09	\$5,024.30	6	3/6/09	7/14/08	A		Y	3/6/09	\$5,024.30	0	G-107	3/19/09	U	See unit price G-4	
172	Cost to Construct temp admin.	3/6/09	\$11,494.44	10													Associated with labor's "Delay Claim".
173	Costs Associated with Change	3/6/09	\$112,827.67	120													Associated with labor's "Delay Claim".
174	Additional Layout Required	3/6/09	\$126,695.85	100													Associated with labor's "Delay Claim".
175	Costs Associated with Working	3/6/09	\$281,688.75	120													Associated with labor's "Delay Claim".
176	Additional Costs Associated	3/6/09	\$196,048.46	117													Associated with labor's "Delay Claim".
177	Relocation of Booths	3/6/09	\$5,535.35	2													Associated with labor's "Delay Claim".
178	Costs for extending contract by	3/6/09	\$292,820.84	133													Associated with labor's "Delay Claim".
179	Changes to Rm C133A, C133D, C133H and C133G	3/30/09	-\$209.81	35													4/15 Novinger/foreman rate. Joanneman only. Revise labor fittings and burden.
180	Perform work like CSR 80 in	3/23/09	\$4,463.31	5	4/8/2009												Remove labor O/H labor (Sgt and PM) BBR to be applied above. Joanneman only. Revise labor fittings and burden.
181	Work in Shop 134 per CSR 67	3/25/09	\$1,500.30	2													Joanneman. Reduce labor hours to 16. Apply proper burden rates.
182	Relocation of Sale per CSR 72	3/25/09	\$8,071.47	6	4/8/2009												4/15 Reduce carpenter hours to 1 in 2.3
183	Delete Paint Booth per CSR 71	3/26/09	\$611.12	3													4/15 Labor to provide credit for booth not
184	Changes to Door Inset, roath	3/26/09	\$568.44	3													4/15 Adjust Novinger's price based on all
185	CRU Down at Room Spray	4/2/09	\$4,560.35	5	4/8/2009												4/15 CRU credit issue. Review proposal to
186	Mechanical Room Stenwork	4/2/09	\$4,631.32	5	4/8/2009												WAB perform at a later date via shop forces.
187	Shop Egress Door Change	4/2/09	\$1,858.97	3	4/8/2009												4/15 CRU issue. On hold. If seeing an
188	Changes per CSR77 Sawtooth	4/7/09	\$1,302.42	4													4/15 Down TBM. Research credit more
189	CRU at CSR per CSR 75 2018	4/8/09	\$2,207.28	3	4/15/09												4/15 Review hours as agreed. No BBR
190	New Plate at Shop 132 TBM	4/7/09	\$680.03	1													4/15 Review scope of work. Labor and ETI to
191																	
192	Remove Splayings TBM	4/7/09	\$2,700.01	2													
193	Contract Electrical Overhead	4/7/09	\$2,374.60	2	4/15/2009												
194	Build new wall in rm c267	4/7/09	\$1,407.48	2													
195	Add knee wall for plumbing	4/7/09	\$1,562.84	2													
196	Rebuild wall in room C265 and	4/7/09	\$2,392.55	2													
197	Rebuild structural wall between	4/7/09	\$2,750.25	4	4/15/2009												
198	Changes to framing above	4/28/09	\$783.24	1													
No PCO #	No cost schedule Extension	3/16/09	\$0.00	179	n/a					3/16/09	\$0.00	179	G-102	3/16/09	C	Schedule extended to 8/28/09 for	
199																	
200	Chase in Rm 442 per CSR4	5/11/09	\$1,721.86	1													Not yet reviewed

S:\Proposals\2009\State College\State College Area School District\Section 2 - Change Order Management\WABD PCO Log 5-14-09



Waynesboro Area High School
Prospective Change Order Status Log

PCO #	Description	Date submitted	Amount	Time Req'd	Date Reviewed By WABD (if applicable) subsequent to 3/23/09	Date Work Completed/ %	*PCO Accepted/Re-evaluated?	Date Revised	Backup Provided?	Date Revision Last Rev'd/Reviewed	Date Accepted	Approved Amount	Time April	Change Order No.	WABD Signature Date	Reason Code	Remarks (if in status of Open PCO's that have been rejected for inappropriate or other reasons, other than rejected below.)
total:			5,127,522	1556							5,232,296	179					

S:\Proposals\2009\State College\State College Area School District\Section 2 - Change Order Management\WABD PCO Log 5-14-09



Waynesboro Area High School
Prospective Change Order Status Log

PCO #	Description	Date submitted	Amount	Time Req'd	Date Reviewed By WABD (if applicable) subsequent to 3/23/09	Date Work Completed/ %	*PCO Accepted/Re-evaluated?	Date Revised	Backup Provided?	Date Revision Last Rev'd/Reviewed	Date Accepted	Approved Amount	Time April	Change Order No.	WABD Signature Date	Reason Code	Remarks (if in status of Open PCO's that have been rejected for inappropriate or other reasons, other than rejected below.)
-------	-------------	----------------	--------	------------	-------------------------------------------------------------	------------------------	-----------------------------	--------------	------------------	-----------------------------------	---------------	-----------------	------------	------------------	---------------------	-------------	-----------------------------------------------------------------------------------------------------------------------------

Herre Bros Inc																	
	Accept Revised Phasing Plan	8/14/07	\$0.00	0								\$0.00	0	H-1	8/11/2007	C	Voided - Revised CO 20-21 issued
1-S-0785-002	Change phasing plan to reflect	8/14/07	\$0.00	0								\$0.00	0	H-3	10/26/2007	C	No cost change as proposed by Letter Withdrawn. Re-submitted as CO#
1-S-0785-003	Revised Completed Coordination	11/7/07	\$1,003.00	0	5/15/08	11/7/09	R		Y	2/20/08							
1-S-0785-004	Maint revision to expansion	11/7/07	\$643.03	0	5/15/08	11/7/09	A				5/15/08	\$643.03	0	H-4	1/24/08	A/R	
1-S-0785-005	Remove existing roof drains	11/7/07	\$860.12	0	5/15/08							\$0.00					Disallowed by A/E. Already in the specs.
1-S-0785-006	Remove 2x8" loop water lines	11/7/07	\$5,088.17	0	5/15/08	F	A				5/15/08	\$5,088.17	0	H-5	1/24/08	A/R	
1-S-0785-007	Provide custom access door for HP-43	3/20/08	\$488.99	0	5/15/08							\$488.99	0	H-4	7/29/08	A/R	
1-S-0785-008	Provide revisions per HSK15	3/20/08	\$28,357.20	0	5/15/08							\$28,357.20	0	H-7	8/13/08	O	
1-S-0785-009	Provide duct revisions for HP-4	7/2/08	\$2,257.44	0								\$2,257.44	0	H-5	7/23/08	A/R	
1-S-0785-010	Provide temp heat in areas 1	10/23/08	\$5,525.06	0	10/23/08	F			Y	3/4/09	2/23/09	\$5,525.06	0	H-5A		U	HPF issued 10/23/08. Provided TM rate
1-S-0785-011	Revisions to Rm D-405	12/1/08	\$18,917.59	0	2/23/09		R	2/23/09									Revised with correct labor and bond rates
1-S-0785-012	Revisions to Rm C1178 per HSK	1/12/09	\$1,149.14	0	2/23/09		R	2/23/09		3/18/09				H-10/177			Requesting clarification from SMS. Voided
1-S-0785-013	Provide revised Coord Drawg	3/13/09	\$1,116.83	0	2/23/09		R	2/23/09	Y	2/23/09	2/23/09	\$1,116.83	0	H-9	3/27/08	A/R	Revised with correct labor and bond rates
1-S-0785-014	Revisions per HP-39	2/13/09	\$2,943.95	0	2/23/09		R	2/23/09	Y	2/23/09	2/23/09	\$2,943.95	0	H-9		C	HP-39 is the correct engineering of the
1-S-0785-015	Revisions to Kitchen area	2/13/09	\$727.16	0	2/23/09		R	2/23/09	Y	2/23/09	2/23/09	\$665.89	0	H-8		U	Adjustment not made as agreed at meeting
1-S-0785-016	Rev Duct Collector system per	1/13/09	\$6,593.81	0	2/23/09		R	2/23/09	Y	3/18/09	2/23/09	\$3,787.50	0	H-20		O	Revised with correct labor and bond rates.
1-S-0785-017	Revisions to Elec Main Rm.	1/13/09	\$375.46	0	2/23/09		R	2/23/09	Y	2/23/09	2/23/09	\$313.71	0	H-11	3/27/08	A/R	Revised with correct labor and bond rates.
1-S-0785-018	Remove and install exhaust duct	2/13/09	\$7,118.15	0	2/23/09		R	2/23/09	Y	2/23/09	2/23/09	\$6,155.83	0	H-12	3/27/08	C	Revised with correct bond rates.
1-S-0785-019	Remove duct work from HRM-	2/13/09	\$9,716.11	0	2/23/09		R	2/23/09		3/2/09				H-14			Withdrawn by A/E. Keep existing routing.
1-S-0785-020	Install Home Hood exhaust duct	3/10/09	\$2,189.78	0	2/23/09		R	2/23/09	Y	2/23/09	3/4/09	\$2,189.78	0	H-13	3/27/08	A/R	Revised with SMF back up and correct labor
1-S-0785-021	Revised Duct Collector per	3/10/09	\$45,749.05	0	2/23/09		R	3/8/09		3/18/09	3/18/09	\$28,592.00	0	H-21		O	Revised with correct labor and bond rates.
1-S-0785-022	Remove and install exhaust duct	2/24/09	\$1,763.34	0	3/4/09		A				2/4/09	\$1,763.34	0	H-15	3/27/08	O	
1-S-0785-023	Ably/Added in HP-35 in rm.	2/24/09	\$576.83	0	3/4/09		A				2/4/09	\$576.83	0	H-16	3/27/08	U	
N/A	Change Detail Completion Date	3/18/09	\$0.00	179	3/18/09	N/A	N/A	N/A	Y	3/18/09		\$0.00	179	H-17		C	Six months out time entrance
total:			\$15,871.67	179								\$87,163.22					

S:\Proposals\2009\State College\State College Area School District\Section 2 - Change Order Management\WABD PCO Log 5-14-09



Waynesboro Area High School
Prospective Change Order Status Log

PCD #	Description	Date submitted	Amount	Time Req'd	Date Reviewed by WASH (if applicable) subsequent to 3/23/09	Date Work Completed %	*PCD Accepted/Revised?	Date Revised	Backup Provided?	Date Revision Last Row/Reviewed	Date Accepted	Approved Amount	Time App'd	Change Order No.	WASH Signature Date	Reason Code	Remarks (* in absence of dates PCD is likely to be held pending for appropriate approval process. Other reasons listed below.)
J.R. Reynolds																	
1	Accept Revised Phasing Plan		\$0.00	0								\$0.00	0	P-3		C	Voided
2	Change the fire protection zone	8/25/07	\$6,000.00	0								\$6,000.00	0	P-2	10/21/08	C	
3	Accept revised revision of		0									0	0	P-3		C	No cost change to revise phase 1 completed
4	Add 5" sewer pipe in Area	11/29/07	\$5,467.00	0								\$5,467.00	0	P-4	1/20/08	A-E	PSC-22
5	Change the storm water	5/31/07	\$27,246.00	0								\$27,246.00	0	P-5	1/20/08	A-E	
6	Change Sprinkler Layout in film	11/18/09	\$5,315.00	0	Various											O	Rejected as being too expensive by SD.
7	Move two RWC in the Media	2/10/09	\$1,539.00	0	2/17/09		A		y		2/17/09	\$1,539.00	0	P-6	3/4/09	U	Agreed to reduce bond rate to 1% in the
8	Install additional gas solenoid	2/10/09	\$1,186.00	0	2/17/09		A		y		2/17/09	\$1,186.00	0	P-7	3/4/09	U	
9	Relocate RWC from driveway in	3/2/09	\$940.00	0	3/6/09	1/24/09	A		y		3/6/09	\$940.00	0	P-8	3/27/09	U	
10	Pipe frame hood in film D410A	3/2/09	\$2,003.00	0	3/6/09	1/24/09	A		y		3/6/09	\$2,003.00	0	P-9	3/27/09	A-E	
	Change Substantial Completion Date to 8/28/09 and Final Completion Date to 9/28/09	3/16/09	\$0.00	179							3/16/09	\$0.00	179	P-10	3/27/09	C	
	TBM for Work Associated with	4/7/08	\$1,815.00	0	n/a	3/24/08	A		y		4/21/08	\$1,815.00	0	P-11	3/7/08		Final copy of paperwork. Have no record of
	And 2 Water Coolers in	8/25/08	\$5,528.00	0													What happened this request?
	total:		\$47,289.00	179								\$49,496.00					

S:\Proposals\2009\State College\State College Area School District\Section 2 - Change Order Management\WASH PCD Log 5-14-09

ALEXANDER

Waynesboro Area High School
Prospective Change Order Status Log

PCD #	Description	Date submitted	Amount	Time Req'd	Date Reviewed by WASH (if applicable) subsequent to 3/23/09	Date Work Completed %	*PCD Accepted/Revised?	Date Revised	Backup Provided?	Date Revision Last Row/Reviewed	Date Accepted	Approved Amount	Time App'd	Change Order No.	WASH Signature Date	Reason Code	Remarks (* in absence of dates PCD is likely to be held pending for appropriate approval process. Other reasons listed below.)
Oyler Electric																	
	To accept the revised phasing		\$0.00	0								\$0.00	0	S-1			Voided in the face of a subsequent revision.
	Accept revised phasing plan		\$0.00	0								\$0.00	0	S-2		C	
	Convert OMS of a classroom	12/15/08	\$6,625.63	0										P-8			Rejected as being too expensive.
	Reduce Time Extension		\$0.00	179							4/21/09	\$0.00	179	S-4	3/7/09	C	
	total:		\$6,625.63	179								\$0.00					

- Change Order executed
- Change Order Request approved, awaiting execution
- Change Order Request denied or voided
- Change Order Request under review

S:\Proposals\2009\State College\State College Area School District\Section 2 - Change Order Management\WASH PCD Log 5-14-09

*Additions and Alterations
to the
Waynesboro Area High School*



Constructability Review

August 23, 2006

Prepared by:
Alexander Building Construction, LLC
315 Vaughn Street
Harrisburg, PA 17110
717-234-7041



August 23, 2006

Waynesboro Area School District
210 Clayton Avenue
Waynesboro, PA 17268

Attn: Mr. Barry L. Dallara, Superintendent

Re: Additions and Alterations to the Waynesboro Area High School
Constructability Review

Dear Mr. Dallara:

We have performed a constructability review of the drawings and specifications prepared by EI Associates and their consultants for the referenced project. The constructability review process involves the following:

- Review and comments of the plans and specifications by the following Alexander personnel:
 - Project superintendent, Ray Stambaugh
 - Project manager, Jeffrey Smith
 - Estimator, Timothy Kay
 - Professional engineer, John Roberts
 - Manager of Preconstruction, Richard Wille
 - Manager of Construction, Stephen Wilt
- General overview of site and building phasing, scheduling, logistics, owner's activities, ingress/egress, and construction staging and lay down areas. Please see *Construction Program Approach* attached which derives general programmatic considerations from the existing documents. Note: *conclusions as to optimal phasing et al must be done in concert with the owner.*

Beyond specific observations and recommendations listed in the *Constructability Review Comments* (attached), we believe the following "big picture" items need to be considered:

- Development of separate site and building Phasing & Logistics plans indicating the sequence and timing of areas of construction for the purpose of insuring that the owner's program, operations, separate contracts (especially abatement), and children's safety and educational experience receive paramount consideration.

The phasing of construction is typically programmatically driven and must be seamlessly coordinated with ongoing operations and safety considerations. The associated schedule must offer realistic milestones to insure the highest probability of successful completion. Key items of concern are 1) student

2545 North Atherton Street ▲ Suite 103 ▲ State College, PA 16803
Phone: 814-237-6059 ▲ Fax: 814-237-6092
www.alexanderbuilding.com

Mr. Barry Dallara
August 23, 2006
Page 2

interface with construction operations, 2) renovations limited to 12 rooms at a time, and 3) specific provisions for temporary classroom space in the existing gymnasium.

- Reconsideration of rock blasting within 15' of the building. Consideration needs to be given to performing blasting during off hours or weekends, when school is not in session, and well beyond 15' of existing structures to eliminate the possibility of damage to the existing foundation.
- Refinement of the documents with respect to the conversion of the existing Auditorium area into a cafeteria, kitchen and classrooms. The architectural and structural design of this area needs to be completed.
- A food service design is required with associated assignment of MEP responsibilities.
- MEP equipment and panel schedules require completion to avoid change orders resulting from incomplete or incompatible information.

It should be noted that we typically find deficiencies in the front-end (Divisions 0 and 1), especially with regard to the coordination of prime contractors. In this case, however, El Associates' front-end appears to be exceptional in its thoroughness and appropriate assignment of responsibilities allocated between the prime contractors.

We look forward to reviewing the *Construction Program Approach* and *Constructability Review Comments* with your team members at this afternoon's working session.

Please contact me if you have any questions.

Sincerely,

Alexander Building Construction, LLC



Richard K. Wille
Manager, Preconstruction Services

C: Alexander team members
Richard Seitz, Alexander Building Construction
Lauren Herman, Alexander Building Construction

Attachments: *Construction Program Approach*; 2 pages
Constructability Review Comments; 6 pages

ALTERATIONS AND ADDITIONS TO THE
WAYNESBORO AREA HIGH SCHOOL

CONSTRUCTION PROGRAM APPROACH
AS DERIVED FROM THE CONSTRUCTION DOCUMENTS

SUMMER 2006

- Complete building plans.
- Verify project funding.
- Issue for bids.

FALL 2006

- Establish student areas.
- Establish (temporary) student & staff parking.
- Establish student access and egress.
- Apply for all utilities.
- Develop professional relations with faculty, students and community.
- Mobilization.
- Barricade area for new addition with material laydown and access.
- Begin underground for new addition.
- Begin construction of new addition.
- Identify hazardous materials in existing building.

SPRING 2007

- Begin permanent sitework, curbs, paving, landscaping, etc.
- Begin exterior upgrades to existing building.
- Review the ability to cancel or relocate summer classes.

SUMMER 2007

- Begin select demolition and renovation of existing building spaces.
- Construct mezzanine.
- Existing Cafeteria to remain open until new is complete (Summer 2008).
- Staff transitions into new addition (late summer).
- Reestablish barricades and access for returning students.
- Transfer existing power distribution to new switchgear.

FALL 2007

- Students return to utilize new addition (Gymnasium, Auditorium, Loading/Parking Area, etc). Try to avoid delayed occupancy.
- Students now occupying construction areas, consider 2nd shift.
- Closely monitor student access and egress (adjust traffic control).
- Continue open communication with faculty, students and community.

SPRING 2008

6/9/2009

- Review the ability to cancel or relocate summer classes

SUMMER 2008

- Transfer existing equipment to new cafeteria and prepare for opening
- Assist with set-up of classroom equipment
- Project completion
- Demobilization

FALL 2008

- Open completed project to students and community

Waynesboro Area Senior High School Additions & Alterations
Constructability Review Comments

6/9/2009

Documents dated 7/25/06

Item	Discipline/	General Notes	Notations
1	General		All Division 1 specs to be edited with updated information prior to release.
2	General		Are there Supplementary Conditions (modifying the General Conditions)?
3	General		Need construction fence around perimeter of jobsite contract limits. East elevation should have a
4	General		Abatement contractor must be "on call" for removal of concealed asbestos during general demolition.
5	General		Abatement contractor's schedule MUST be tied into demolition schedule of existing building.
6	General		VCT abatement note: where floor tile is being removed in classrooms along perimeter walls, all mastic
7	General		Assume that the existing building has been checked for lead paint.
8	General		L&I versus Borough inspections - who inspects and in what combination?
9	General		Structural considerations for HVAC units may need refinement.
10	General		Is the use of temporary electric heaters acceptable?
11	General		Does existing roof have a warranty? If so, who was the contractor? What type of roof? Any cuts in
12	General		Owner needs to remove everything not indicated for demolition prior to contractor's arrival on site.
13	General		Quality assurance need to be provided by the Owner
14	Geotech report		Significant rock will be encountered during building and foundation excavation.
15	Geotech report		Blasting required within close proximity to existing school.
16	Geotech report		Confirm that mass over-excavation of existing old fill materials as described on page 6 is included on
17	Geotech report		Was the 8000 psf maximum allowable bearing pressure under the planned retaining wall accounted for
18	Geotech report		Construction schedule should be reviewed and adjusted to limit major earthwork operations from
19	TOC-1		A review of the TOC indicates that all Division 1 specs or placeholders are in place.
20	ITB-2, E		Recommend offering subsurface information upon receipt of signed and witnessed waiver releasing
21	ITB-3, A		Assume loose copies of all proposals and supplemental bid documents will be provided.
22	ITB-5, Art 7, A		If a bid is withdrawn prior to bid receipt time, then why can't a firm resubmit a bid prior to the receipt of
23	ITB-8, D		May want to consider raising the surety company rating as a means of reducing the probability of
24	FOP 3, 4		Alternates need to be developed.
25	GC-20, 8.2.2		Add phasing information. Add enough detail to account for abatement, metal roof deck remediation
26	GC-28, 11.1.3		Know that some primes and subcontractors may obtain supplemental insurance to offset the high
27	GC-35, 11.4.9		Is there a Construction Manager on the project?
28	GC-39, 16.1		Are the liquidated damages derived from calculations? Are they enough; they seem low.
29	GC-42, Art 27		Add language giving the Owner the right to remove construction personnel due to background checks.
30	Prevailing Wages		Wage determination required.
31	01010-2, 1.05.G		Are asbestos abatement, metal roof deck remediation and data/telecom cabling adequately 1) defined and partitioned in plans and specs and 2) coordinated between the primes?
32	01010-4, G		Excellent - we typically do not see delineation done this well.
33	01010-7, 1.08.D.5		Phasing plan and milestones are essential.
34	01010-9, 1.10		Clears up the missing 01500, <i>Temporary Facilities</i> question.
35	01010-12, E.1		References RPR's trailer; 01010-13, 1.11.B references RPR office in existing facility.
36	01010-12 and 13		Duct cleaning not mentioned, but found later in 01010-21, 3.03.C.2.
37	01010-13, 1.11.C.1		This is not workable as there's no easy way of accounting for and allocating the cost of calls.
38	01010-14, 1.12.A.2		A site plan is needed that indicates specific items and their locations.
39	01010-15, 1.13.D		If security fence is required for the entire project, limits need to be shown on the site plan.
40	01010-15, 1.13.F		Phasing plan is needed.
41	01230		If there are alternates, they need to be listed.
42	01275		Edit to fit the job.
43	01732-1, 1.01.A.1		Finish summary.
44	01732-2, 1.01.G.1		Abatement needs to be considered in the schedule and resultant milestones.
45	Demolition		Add "all construction material remaining from re-roofing that is laying on top of batt insulation" to
46	Site		Should a scope of work item be added to the plumbing prime to clean and video lines of the existing
47	02300		Items 1.06.D indicates that the contractor will be compensated for unsuitable material however item 3.03.A conflicts and states that all excavation is unclassified. Structural drawing notes require the contractor to interpolate rock elevations between test borings however 02300 states that the geotech report is for reference only. These items should be clarified to limit the exposure to the district related to unclassified excavation.
48	02300		Provide shoring specification for shoring shown on structural drawings near existing building. Identify if
49	02300		Add that blasting plan must be submitted and approved prior to commencing any blasting activities.
50	02300		Add "only mechanical means of excavations will be allowed within fifteen (15) feet of existing building
51	02300		Confirm that mass over-excavation of existing old fill materials as described on page 6 is included on
52	02300		Confirm that the specifications allow for the use of on site blasted rock or "shot" rock fill.
53	08010		There are numerous doors in the door schedule (114-2 thru 5; 122-2 thru 5; 126-2,3) with no door type
54	08950		Indicated in the specs, but could not find on the drawings.
55	09640		Has gym floor finish been coordinated with products that the District already uses?
56	09771		Tackable wall panels are called for in this spec section but not indicated on the drawings.
57	09850		Four types of acoustical treatments are referenced in 1.01.A. Only the auditorium reflector panels are
58	10050		Mailboxes and dock bumpers are called for in this spec section but not indicated on the drawings.
59	10100		The spec section does not refer to the sliding markerboard / chalkboard indicated on A11.15.
60	10100		Tack strips and modular display board system are called for in this spec section but not indicated on
61	10800		Page 1, electric hand dryers are referenced as being owner provided but are not shown on any
62	11060		Page 6, Item 1.0 calls for sound reflector panels over the auditorium audience. Section 09850, 2.06
63	11060		Paragraph 2.14 references (2) motorized hoists, but there is no reference to these on the drawings. All
64	11132		Manual Projection Screen spec missing.
65	12211		Brodart as basis-of-design is sometimes hard to get competition.
66	Electrical		Phasing considerations for existing power vs. new location(s).
67	<u>Drawings</u>		
68	Civil		Provide Civil drawings for review and coordination with building.

Waynesboro Area Senior High School Additions & Alterations

6/9/2009

Constructability Review Comments

Documents dated 7/25/06

Item	Discipline/	General Notes	Notations
69	Elevations		Will finishes be indicated?
70	Various		Will reflected ceiling plans be issued? These would be helpful, especially in areas such as the
71	Various		Could not find Fire Extinguishers or FE Cabinets on plans. Could not find spec. for FE cabinets.
72	Various		Are all display boards to be 4' high?
73	Various		Corridor lockers - will they be called out on drawings as new vs. existing (if applicable). Will a typical
74	A2.2, 2.4		Display cases are not labeled.
75	A2.5		Section G indicates "Waterproofing or Dampproofing" for the retaining wall. Is there an option?
76	A2.6, 2.7		Suggest labeling folding partitions on the floor plans.
77	A5		Show sections of new construction within existing building to clearly show intent (specifically areas 7 &
78	A/A6.2		Show elevator hoist beam
79	11/A6.2		New elevator code requires ladder rungs to be a minimum of 7" away from pit wall. Usually this is
80	A10		The only mirror shown in the bathrooms is a standard framed mirror. Are any tilt mirrors required for
81	A10.1		Room A105 Women: Toilet accessory labels missing in several stalls on right side. Accessory labels
82	A10.1		Toilet partitions (Item 3) are only labeled in some of the rooms. Urinal screens are not labeled. May
83	A10.2		Rooms C392A, C392E, toilet accessory layout is difficult to read, and symbols don't line up. Room
84	A10.2		Room C337C, Items 16, 12, and 1 are shown inside a stall. Is this correct?
85	A10.2		Room C323 - locker type is not indicated. Note 11 refers you to drawing A6, which is not a specific
86	A11.1 - A11.3		Sizes are not indicated on the plans for display boards. Sizes are shown on A11.4.
87	A11.4		Item 35 - Metal Shelving, Remarks say "See Specs" but could not locate any specs for this shelving.
88	A11.5, A11.5A		No labels are shown on gym equipment.
89	A11.6		Locker bench dimensions are not given. Shower accessories are not labeled in all areas (Ref. A116, A124). If some are labeled, all should be labeled. Item 31 refers to a removable bench, but could not find any details or specs for this. H/C bench detail should refer you to 2/A11.6, not 4/A11.6. Display board sizes are not indicated on the plan.
90	A11.10		Equipment is not labeled.
91	A11.11, 11.11A		A symbol is given for seats with aisle lights, but symbol does not appear on the plans. Light locations shown on 'E' drawings should be indicated on 'A' drawings.
92	A11.13		ES/SE Classroom - Equipment labels don't line up on plan.
93	A11.15		Typical Business Lab - "Typical" used twice in title. Equipment labels don't line up on plans.
94	A11.16, 11.18		Equipment is not labeled.
95	A11.17, 11.18		No elevations are called out for these rooms.
96	A11.20		Room C352, Equipment is not labeled.
97	A11.22		Item 39 - Spray Booth - where is this item specified? Items 53 and 54 are shown as solid lines but
98	1/A13.2		Elevation shows canopies and lettering in Dining Area. Is this existing or new?
99	S2.1		Show section through elevator pit.
100	S2.15		Finish structural design of C level area 8.
101	S2.15		What foundations are required for area 8 to support new steel structure. What type of constraints does
102	S2.18		Provide elevator hoist beam, if required.
103	S2.18		Existing sewer main should be a scope of work for the plumber to clean and video lines at the end of
104	S2.18		Removal of all Batt insulation should also read "All construction material remaining from re-roofing
105	S2.18		Need construction fence around perimeter of jobsite contract limits. East elevation should have
106	S2.18		Will existing walls be re-used in same location? This would include fire walls (2 hour), corridor walls
107	S3.2		Provide elevator pit structural foundation detail. Include the note "coordinate pit size and layout and
108	7/S4.3		Confirm catwalk L3 X 3 X 1/4 bracing occurs at each bar joist.
109	HP1.01		Provide comprehensive site utility plan detailing specific locations for connection points to utilities.
110	HP1.02		Review Area 5 rain conductor locations and quantity, also review roof slope in this area. Better defined
		See note legend for MEP items at the end of this document...	
111	HP2.01	1, 3, 7, 9	Provide area designations with match lines.
112	HP2.02	1, 2, 3, 7, 9	
113	HP2.03	1, 2, 3, 7, 9	Provide building key plan.
114	HP2.04	1, 2, 3, 7, 9	
115	HP2.05	1, 2, 3, 7, 9	Delete reference to Area 12 (not used)
116	HP2.06	1, 2, 3, 7, 9	Delete reference to Area 12 (not used)
117	HP2.07	1, 2, 3, 7, 9	
118	HP2.08	1, 2, 3, 7, 9	
119	HP2.09	1, 2, 3, 7, 9	
120	HP2.10	1, 3, 7, 9	
121	H3.01	1, 7, 8	
122	H3.02	1, 7	
123	H3.03	1, 7, 8	Provide enlarged mechanical room with accurate equipment layout (incl. any electrical footprint)
124	H3.04	1, 7	
125	H3.05	1, 7	
126	H3.06	1, 7	Verify large ductwork does not interfere with architectural/structural elements. Provide elevation for
127	H3.07	1, 7	
128	H3.08	1, 7	Verify code requirements for elevator machine rooms which include other mechanical (HP) equipment.
129	H3.09	1, 7, 8	Provide missing equipment designation information (ie HP, EF).
130	H3.10	1, 7	
131	H3.11	1, 7	
132	H3.12	1, 7	Provide heat pump closet in student store.
133	H3.13	1, 7	Provide heat pump closets for math classrooms and lab. Provide any missing equipment designation
134	H3.14	1, 7	
135	H3.15	1, 7, 8	Provide enclosures for any exposed ductwork (ie classroom D445)
136	H3.16	1, 7, 8	Spell check "dwon" in Area 11

Waynesboro Area Senior High School Additions & Alterations

6/9/2009

Constructability Review Comments

Documents dated 7/25/06

Item	Discipline/	General Notes	Notations
137	H4.01	5	Complete equipment schedules.
138	H4.02	5	Complete equipment schedules.
139	H4.03		Detail vibration isolation where used. Note: No wet piping to be installed above electrical gear (typical).
140	P3.01	1, 7, 10	
141	P3.02	1, 7, 10	
142	P3.03	1, 7, 10	
143	P3.04	1, 7, 10	
144	P3.05	1, 7, 10	Verify cross reference for note "4"
145	P3.06	1, 7, 10	Reference enlarged plans or typical information for plumbing installation in Area 3 (pipe this area)
146	P3.07	1, 7, 10	
147	P3.08	1, 7, 10	Verify cross reverence for enlarged floor plans
148	P3.09	1, 7, 10, 11	Review use of RWC and FD designations in Area 7.
149	P3.10	1, 2, 7, 10, 11	
150	P3.11	1, 2, 7, 10, 11	Reference enlarged kitchen floor plan on P4.02. Verify reference to Area 12
151	P3.12	1, 7, 10, 11	Verify sheet title (HVAC vs. Plumbing). Several plan notes point to nothing specific.
152	P3.13	1, 7, 10, 11	
153	P3.14	1, 2, 7, 10	
154	P3.15	1, 7, 10	Verify air compressor location and piping requirements.
155	P3.16	1, 7, 10, 11	
156	P4.01	7, 11, 13	Verify enlarged plan area designations.
157	P4.02	1, 7, 11, 13	Verify key plan Area designations and use of Area 12. Provide detailed and dimensioned mechanical,
158	P5.01		Note: No wet piping to be installed above electrical gear (typical). Verify who is to provide roof drains as
159	FP1.01	1	Note: No wet piping/heads to be installed above electrical gear (typical). Decide which method of
160	FP3.01	1, 7	
161	FP3.02	1, 7	
162	FP3.03	1, 7	
163	FP3.04	1, 7	Verify notes to reference sheet FP3.08 (ie FP3.06)
164	FP3.05	1, 7	Verify location of flow switch and shut-off valve in resource room.
165	FP3.06	1, 7	
166	FP3.07	1, 7	Verify note to reference sheet FP3.06. Verify location of flow switch and shut-off valve in finished
167	FP3.08	1, 7	Verify any code restrictions relating to sprinkler heads in heat pump closets (typical).
168	FP3.09	1, 7, 8	
169	FP3.10	1, 7	
170	FP3.11	1, 7	Provide access to areas above walk-in freezer and cooler.
171	FP3.12	1, 7	
172	FP3.13	1, 7	
173	FP3.14	1, 7	
174	FP3.15	1, 7	
175	FP3.16	1, 7	
176	E1.01		AV is Audio Visual
177	E3.01	1, 3, 7, 8, 9	
178	E3.02	3, 7, 9	Verify if electrical work is to be demolished along with building area adjacent service entrance.
179	E3.03	3, 7, 9	
180	E4.01	1, 6, 7, 12	
181	E4.02	1, 6, 7, 12	Establish lighting control programming parameters with school district (typical).
182	E4.03	1, 6, 7, 12	
183	E4.04	1, 6, 7, 12	
184	E4.05	1, 6, 7, 12	Properly indicate key plan for Area 1
185	E4.06	1, 6, 7, 12	
186	E4.07	1, 6, 7, 12	
187	E4.08	1, 6, 7, 12	
188	E4.09	1, 6, 7, 8, 12	Clarify key note 1 (installation)
189	E4.10	1, 6, 7, 12	
190	E4.11	1, 6, 7, 12	Select dining room light fixture.
191	E4.12	1, 6, 7, 12	
192	E4.13	1, 6, 7, 12	
193	E4.14	1, 6, 7, 12	
194	E4.15	1, 6, 7, 12	
195	E4.16	1, 6, 7, 12	Provide light fixture schedule on plans. Verify if ceiling grid is to extend into heat pump closets as
196	E5.01	1, 6, 7	
197	E5.02	1, 6, 7	
198	E5.03	1, 6, 7	
199	E5.04	1, 6, 7	Regarding key note 2, seating contractor to provide layout for coordination of flush floor boxes.
200	E5.05	1, 6, 7, 8	
201	E5.06	1, 6, 7, 8	
202	E5.07	1, 6, 7	
203	E5.08	1, 6, 7	Specify meeting for walk-thru with faculty prior to rough-in of specialty receptacles to verify location
204	E5.09	1, 6, 7, 8	
205	E5.10	1, 6, 7	
206	E5.11	1, 6, 7	Verify cross reference for enlarger floor plan (E6.08)
207	E5.12	1, 6, 7	
208	E5.13	1, 6, 7	
209	E5.14	1, 6, 7, 8	
210	E5.15	1, 6, 7	

Waynesboro Area Senior High School Additions & Alterations
Constructability Review Comments

6/9/2009

Documents dated 7/25/06

Item	Discipline/	General Notes	Notations
211	E5.16	1, 6, 7	
212	E5.17		Background only, no work started
213	E5.18		Background only, no work started
214	E6.01	1, 6, 7, 8, 13	
215	E6.02	1, 6, 7	Review potential for glare on CCTV monitors opposite exterior windows (typical all offices).
216	E6.03	1, 6, 7, 13	
217	E6.04	1, 6, 7, 13	
218	E6.05	1, 6, 7, 13	
219	E6.06	1, 6, 7, 13	Review location of Panelboard LC7E.
220	E6.07	1, 6, 7, 8, 13	
221	E6.08	1, 6, 7, 13	Provide specific, detailed and dimensioned locations for all electrical devices to allow proper rough-in.
222	E6.09	1, 6, 7, 13	
223	E6.10	1, 6, 7, 13	Verify CCTV monitor locations. Verify need for convenience receptacle (s) in biology storage.
224	E6.11	1, 6, 7, 13	
225	E6.12	1, 6, 7, 13	
226	E7.01	1, 7	Is this plan also intended to show main electrical feeders and/or conduit zones? Will desired elevations
227	E7.02	1, 7	Is this plan also intended to show main electrical feeders and/or conduit zones? Will desired elevations
228	E7.03	1, 7	Is this plan also intended to show main electrical feeders and/or conduit zones? Will desired elevations
229	E7.04	1, 7	Is this plan also intended to show main electrical feeders and/or conduit zones? Will desired elevations
230	E8.01	1, 7	Limited information to allow review.
231	E8.02	1, 7	Limited information to allow review.
232	E8.03	1, 7	Limited information to allow review.
233	E8.04	1, 7	Limited information to allow review.
234	E9.01	4, 5	Provide generator location.
235	E9.02	4	
236	E9.03	4	Provide generator location.
GENERAL NOTES (MEP):			
1. Provide clear building floor designation to be consistent through out construction documents.			
2. Properly coordinate area designations and matchlines.			
3. Provide detailed demolition notes.			
4. Provide panelboard schedules.			
5. Provide complete equipment schedules.			
6. Provide circuiting for electrical devices.			
7. Show all column lines and their designations.			
8. Provide accurate equipment layouts in mechanical and electrical rooms.			
9. Provide demolition legend to decipher scope of work.			
10. Layout and size storm piping for roof drains and other related equipment.			
11. Complete pipe sizing and labeling			
12. Indicate all trades within ceiling grid for proper coordination (mechanical, electrical, fire alarm, fire protection, etc.).			
13. Cross reference enlarged plans to their originating plan sheet number.			

FACILITIES IMPROVEMENTS - PHASE 1

ALLENTOWN SCHOOL DISTRICT

PROJECT TYPE

Additions and Renovations to Two High Schools , Two Middle Schools and One Elementary School and Construction of New Elementary School

- William Allen High School
- Dieruff High School
- Trexler Middle School
- South Mountain Middle School
- Roosevelt Elementary
- Ramos Elementary School

LOCATION

Allentown, PA

PROJECT SIZE

1,302,750 sf

TOTAL PROJECT COST

\$140,614,000

SCHEDULE

January 2007 – July 2011

OWNER

Allentown School District
Allentown, PA

CONTACT

Mr. Robert Sperling
Director of Facilities Services
Allentown School District
Allentown, PA
484-765-4980



**WILLIAM ALLEN
CAMPUS**

William Allen High School

All six buildings in the William Allen campus were upgraded. A new three-story ninth grade academy and 19,000 SF basement faculty parking garage were constructed on the grassy vacant area above. The academy features 84,476 SF of classroom and administration space, 28 classrooms, a two-story cafeteria, a media center, and a green roof. There is an 85' long pedestrian bridge connecting the academy to the main campus. The fully enclosed structure is constructed with aluminum storefront and glass, an insulated panel system and slab on metal deck. The finished interior is controlled by a full HVAC system.

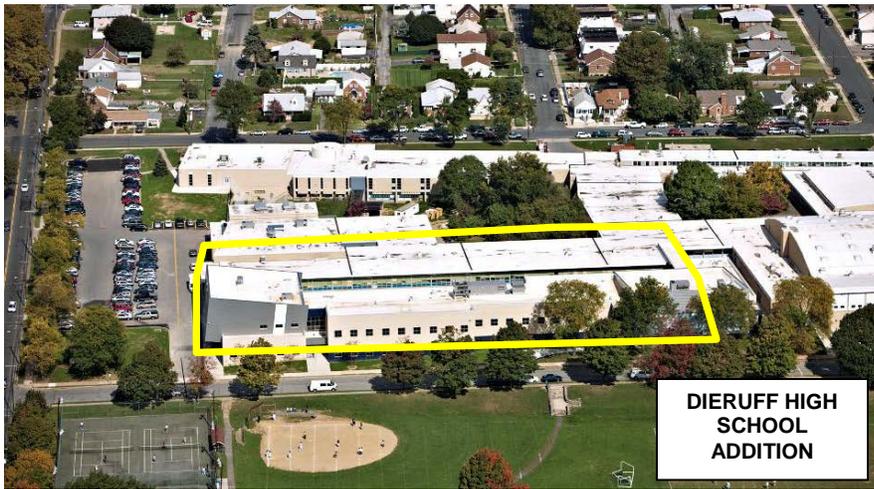
The existing 447,147 SF campus buildings had air-conditioning installed, in addition to receiving ADA, lighting, power, data and security upgrades. Over 100 classrooms were modernized, in addition to auditorium, gymnasium, natatorium, kitchen/cafeteria, locker rooms, art, music and performing arts spaces.

The academy achieved LEED Gold Certification. Significant features include:

- Energy efficient mechanical systems including water-efficient plumbing fixtures
- Energy efficient lighting systems including exterior sunshades and abundant day lighting
- Recycled/regional materials
- Green roofs
- Reduction of existing impervious areas and native planting



NINTH GRADE ACADEMY ADDITION



Dieruff High School

The addition to Dieruff High School consists of a new 60,800 sq. ft. ninth-grade academy providing 24 new science and academic classrooms, in addition to a new kitchen/cafeteria, media center, weight and wrestling rooms.

The 237,500 SF existing high school received air-conditioning, in addition to receiving ADA, lighting, power, data and security upgrades. All classrooms and science classrooms were modernized, in addition to upgrades to the auditorium, kitchen/cafeteria, locker rooms, art, music and performing art spaces. The entire existing school received a new window wall system.

Ramos Elementary School

A new 85,000 SF elementary school was constructed at 15th & Allen Streets, adjacent to the existing Jackson Elementary School. The Allentown School District acquired three adjacent parcels to accommodate construction of the new facility. Designed by Roberson Butz Architects, it accommodates 750 students and is organized into three distinct masses. Each mass is composed of multiple “learning communities” for each grade level. Exterior materials include brick, concrete block, aluminum curtainwall and storefront systems, and glazed brick accents.



The new Ramos Elementary School earned LEED Gold certification through the U.S. Green Building Council. The project has sustainable features such as green roofs, reduction of existing impervious areas, native plantings, exterior sunshades, energy efficient mechanical and lighting systems, water-efficient plumbing fixtures, recycled/regional materials, abundant day lighting and curriculum enrichment opportunities for students.

Trexler Middle School

The addition to Trexler Middle School provides a new 9,200 sq. ft. classroom area and elevator, expanding the capacity of the school by over 100 students. The existing school received air-conditioning upgrades for all academic, auditorium, cafeteria and administrative spaces. Additionally, ADA, lighting, power, data, security and selected window replacements were upgraded. The kitchen and cafeteria were renovated in addition to general architectural upgrades of all classrooms.



Roosevelt Elementary School

Roosevelt received Gold LEED certification upon completion of an L-shaped addition and renovations. The existing gym became a new entrance, office and health room. A second floor was added along the balcony of the auditorium for a new library and additional support classes. The new auditorium/gym was relocated to the old cafeteria area. There is now classroom space for another 100 students and existing classrooms had cosmetic renovations performed. The building now has central air, an elevator, entrance ramps and a conference room. Thirty one parking spaces next to the building were eliminated and replaced with a parking lot for 36 spaces.



South Mountain Middle School

The two new additions to South Mountain Middle School provide both cafeteria and classroom/library additions totaling 14,000 sq. ft. and helped to expand the school capacity by over 100 students. The existing school received air-conditioning upgrades for all academic, auditorium, cafeteria and administrative spaces. Additionally, ADA, lighting, power, data and security systems were upgraded and selected windows were replaced. The existing kitchen/cafeteria was renovated in addition to general architectural upgrades of all classrooms.



SELF-APPRAISAL

- **The Phase 1 Projects for ASD all involved working in and around operating schools while maintaining the safety of the students and staff and delivering the projects within the approved budget.**
- The Allentown School District Phase 1 projects encompassed renovations and additions to six schools including two major high schools. The overall program grew from the initial \$118M conceptual budget to nearly \$133M at schematic design so as to provide needed improvements and programs to schools that had not been renovated in over 40 years or more.
- The renovations to both William Allen and Dieruff High Schools were almost \$80M of the overall program. The exceedingly difficult renovations occurred while the schools were at capacity over a four year time frame. The preconstruction for all six schools was also completed simultaneously, with some staging of the bidding process.
- The high schools were certainly the most difficult part of the process with new additions completed first so as to provide swing space for renovations. Summers were fully utilized for more wide-spread renovations. Budget management was particularly critical during preconstruction to match the limited budget against an extensive list of worn out infrastructure items and facilities' needs to support education.
- The Allentown School District Elementary and Middle School projects encompassed almost \$52M of the overall program budget. Except for the new Ramos Elementary School, the bulk of the projects were mainly renovations with minor additions. All projects were completed within a two-year time frame. The Roosevelt school involved extensive structural renovations to convert the gym into a two story space for administration, library and classroom functions. All schools were upgraded with air-conditioning, major architectural, IT and ADA improvements.
- All projects ended very successfully at nearly the original project budgets, on-time and with no claims.

SCASD ELEMENTARY SCHOOLS - PHASE I

STATE COLLEGE AREA SCHOOL DISTRICT

PROJECT TYPE

K-12 elementary school -
Additions and Renovations

PROJECT LOCATIONS

Ferguson Pine Grove Mills, PA
Gray's Woods State College, PA
Mount Nittany State College, PA

PROJECT SIZE

129,446 sf

TOTAL PROJECT COST

\$28,535,000

SCHEDULE

Ferguson
June 2010 – August 2011

Gray's Woods
April 2010 – October 2010

Mount Nittany
June 2010 – August 2011

PROJECT AWARDS

Ferguson Twp. & Mount Nittany



OWNER

State College Area School District
State College, PA

OWNER CONTACT

Mr. Ed Poprik
Facilities Director
State College Area School District
State College, PA
814-231-1026

Ferguson Township Elementary School



The project systematically replaced an aging school through a series of renovations and additions, with much of the original building ultimately being demolished. Work was phased while the school continued to operate. The new school accommodates current enrollment of 400, with a future capacity of 500.

The project involved renovation of a 1930's wing and replacement of the existing gym, classrooms, kitchen, art and music rooms, and administrative offices. Work entailed installation of new partitions and flooring, MEP upgrades, ADA compliance, and datacom/security systems. The school features resilient flooring and energy-efficient MEP systems, and is fully air-conditioned, sprinklered, and handicapped accessible. Classrooms feature marker boards and tack boards (with provision for future smartboards).

Gray's Woods Elementary School

This project consisted of the construction of a single-story addition to an existing K-5 school building, originally built in 2002. The addition increased the school's capacity from 400 to 500 students.

The addition is constructed of masonry walls on strip footings with wood trusses and a brick façade. All mechanical and electrical systems were tied into the school's existing infrastructure. Additional parking and site development on the 15-acre lot were also provided. While the project is not a suitable candidate to pursue LEED certification, many "green building" criteria were incorporated into the design and construction of the addition, including the use of sustainable materials where possible.



The addition provides:

- Four new general purpose classrooms
- Support space
- Parking and site development



Pending submission and approval

The project is pursuing LEED Gold certification. Significant green features include:

- Lighting control systems that reduce energy use
- Low flow fixtures to reduce water usage
- Geothermal heating and cooling systems
- Certified wood (approximately 75% of the lumber came from a sustainable forest approved by the F.S.C.)
- Construction waste management (diverted 75% from landfills)
- High performance glazing and sunshades
- Heat island reduction
- Rainwater management
- Systems commissioning
- Recycled materials
- Regional materials

Mount Nittany Elementary School



Construction of a new 1- and 2-story, 59,946 square foot building located on a 5-acre site. The school currently serves 400 students with a potential capacity of 500. This school replaces the smaller Panorama Village and Boalsburg schools, which continued in operation during construction.

The new school provides three kindergarten rooms, 18 flexible classrooms for grades 1-5, two special education rooms, art and music rooms, library/media center, nurse's suite, administration, guidance and faculty space. An all-purpose room provides space for both physical education and kitchen/cafeteria with stage.

The steel structure was built on strip footings with CMU foundation, brick and curtain wall façade. The school features resilient flooring and energy-efficient MEP systems, and is fully air-conditioned, sprinklered, and handicapped accessible. Classrooms feature marker boards and tack boards (with provision for future smartboards).



Pending submission and approval

The project is pursuing LEED Gold certification. Significant green features include:

- Lighting control systems that reduce energy use
- Low flow fixtures to reduce water usage
- Geothermal heating and cooling systems
- Certified wood (approximately 75% of the lumber came from a sustainable forest approved by the F.S.C.)
- Construction waste management (diverted 75% from landfills)
- High performance glazing and sunshades
- Heat island reduction
- Rainwater management
- Systems commissioning
- Recycled materials
- Regional materials

SELF-APPRAISAL

- **The Phase 1 Projects for SCASD all involved working in and around operating schools while maintaining the safety of the students and staff and delivering the projects within the approved budget. Our ability to do so was recognized with the CMAA Mid-Atlantic and National Project of the Year Awards for two of the schools.**
- Despite encountering a 12-week summer abatement delay at Ferguson Elementary School, the project was completed on time. This was accomplished by having all material released months in advance and held in storage. Coordination and sequence plans were made with the school district facility staff who moved out furniture and their abatement contractor who isolated and cleared areas before demo began. The renovation wing was done on time and allowed occupancy as needed for the start of school.
- Prior to hiring a Construction Manager, the SCASD provided an initial budget that was to be finalized during Schematic Design in conjunction with the Plancon state funding effort. Alexander worked with the design team throughout preconstruction to help keep the design under budget. This was accomplished in part through the development of a 30%, 60% and 90% design estimate. These estimates served as a cost management tool throughout the design development to ensure when project bids were received they were within budget. On bid day, the sum of both projects was under budget and within one-half percent of the 90% Design Estimate produced by Alexander.
- Alexander's priority on safety involved detailed logistics plans to incorporate protected passage ways for students around and through the site so that emergency egress routes remained open and clear. Fencing and locked gates lined the perimeter of sites to ensure access only for contractor business. We worked 9 months adjacent to (and sometimes directly interfacing with) the Elementary Schools with no incidents and minimal impact on daily school operations.

MOUNT NITTANY MEDICAL CENTER

PROJECT TYPE

Additions, Expansions and Renovations

PROJECT LOCATION

State College, PA

TOTAL PROJECT SIZE

Additions 228,654 sf
Renovations 35,454 sf

TOTAL PROJECT COST

\$113,949,084

OWNER CONTACT

Mr. Harold Brungard
Vice President of Facilities
and Plant Operations
Mount Nittany Medical
Center
1800 East Park Avenue
State College, PA 16802
814-231-7122
hbrungard@mountnittany.org



Alexander completed addition/renovations to five areas of Mount Nittany Medical Center over the past 5 years with similar aspects and challenges as the SCASD High School project. Projects featured below include additions and renovations to existing structures which were in need of expansion to accommodate the needs of the community and its patients and caregivers. The primary focus during construction and phasing considerations was maintaining patient safety and health as the projects were largely completed in occupied and operating facilities.

SELF-APPRAISAL

- Alexander is very proud of their track record of delivering high quality projects for Mount Nittany Medical Center (MNMC) that are on schedule and at or below budget starting with the East Wing Project and continuing on through the current Perioperative Services Project. Our careful planning and attention to detail starting with estimating in the preconstruction phase were key aspects in this successful end result. We developed estimates at the design phase to ensure that project costs were controlled during design and that there were no surprises when bids were received. Once the construction phase started, the project teams worked collaboratively to track costs and address unknown conditions expeditiously in the most cost effective methods possible.
- Alexander places an enormous amount of effort in meeting schedules. Those efforts paid off for example, with the East Wing, Cancer Center, and Entrance A projects at MNMC that were all completed over one month ahead of the scheduled completion dates. On the Emergency Department project, despite early design delays and unforeseen soil conditions encountered during the project, we developed a revised phasing plan that allowed the project to be completed on schedule. All of the projects at the hospital included phased construction which was required to limit the effect of construction on the renovated spaces.
- The level of complexity of the projects completed to date at Mount Nittany Medical Center is significant. **Working in an existing, operating hospital without adversely affecting patients, staff, or visitors has proven to be a significant requirement of construction at the hospital.** Several of the projects, including the East Wing, Cancer Center, and Perioperative Services Project involved construction on top of an existing occupied space (overbuild). The concerns associated with overbuild construction were addressed through a dedicated section of the Site Specific Safety Plan. Some of the practices implemented as a result of this considerable effort included: independent crane inspections, erection of steel on weekends when the space was unoccupied, and the installation of existing roof protection to mitigate fire risks as a result of hot work and water/sound infiltration. Close coordination with hospital personnel is an ongoing, daily component of continued success at Mount Nittany Medical Center.



SCHEDULE

November 2008 – June 2010

East Wing Addition

ICU/ACU expansion and infrastructure upgrades

- Construction of a 4-story addition above the existing 3-story East Wing and adjacent to an occupied hospital
- Completed in a single phase prior to connecting it to the existing facility
- Existing mechanical equipment located on the roof of the original structure (now the second floor of the ICU) was maintained until the 4th level penthouse was constructed and the new equipment placed into service
- A complex sequence of temporary feeds and tie-ins ensured continuous operation during construction and a smooth transition upon completion
- Significant upgrades to the mechanical and electrical infrastructure and extension of emergency power and chilled water piping through a new utility tunnel



SCHEDULE

January 2011 – May 2013

Emergency Department Expansion

Phased construction enlarging and modernizing existing Emergency Department

- New roof-top helipad with dedicated access elevator
- New mechanical penthouse and addition to the campus central utility plant
- Careful scheduling and logistical planning to minimize disruption to existing operations and ensure continuity of emergency and basic care services
- New parking lot replacing spaces demolished for addition



SCHEDULE

July 2012 – November 2014

Perioperative Services Expansion

New four-story addition and renovations to sterile processing department (SPD)

- Construction adjacent to existing hospital, including multiple operating rooms
- Careful phasing to ensure limited disruptions to the hospital's doctors, nurses, employees and patients
- Replacement of 13 existing air-handling units with new ones
- New generator for entire hospital
- New medical air system and vacuum system
- Significant electrical relocations
- 132 micro piles for structural support



SCHEDULE

December 2010 – September 2012

Lance and Ellen Shaner Cancer Pavilion

Phased construction of a 1-story addition above and a 3-story addition adjacent to the Health Services Wing

Renovation of the ground floor housing the Radiology/Oncology and Information Services Departments

- Carefully planned and phased to minimize impacts to patients and staff in occupied areas
- Features treatment infusion units, patient exam rooms, procedure rooms, physicians' offices, pharmacy, and a 2-story glass-enclosed atrium
- Addition includes a 3,100 square foot penthouse with two dedicated air handling units serving the new and existing areas.
- Temporary feeds and tie-ins were provided to ensure the existing roof-top mechanical equipment continued to operate during new additions construction
- Ground floor interior modifications as well as a complex structural retrofit to modify the building structure from a CMU load bearing system to a structural steel frame
- Retrofit required a detailed shoring design that enabled the demolition of existing load-bearing walls and the installation of new concrete footings and steel columns, all while supporting the existing structure and new addition



SCHEDULE

Phases I-II

Mar 2011 - Nov 2011

Phase III

Nov 2011 - Feb 2012

Main Entrance Addition & Renovation

Phased addition and renovation

- Phased to accommodate continual patient/visitor access to adjacent spaces
- Created and installed temporary entrance allowing patients and staff to continue to enter and exit the hospital near the existing entrance, while also maintaining the help desk for visitors during construction
- Construction of the single-story addition, renovation work and removal of the temporary entrance
- Renovations included new carpet, porcelain tile, wood plank look vinyl flooring, paint, stone veneer columns and accents, light fixtures and HVAC system. Radiant panels incorporated into the ceiling provide heat source when required. New underground work included sanitary utilities for toilet and bathroom fixtures, electrical utilities for floor installed electrical outlets, and plumbing for potential future coffee/snack bar area in the waiting room.
- Careful coordination and review of new work installation during regular foremen and project manager meetings.
- ICRA partitions were utilized to delineate, separate and protect the public from construction activities
- Walls were sealed and insulated to prohibit dust migration, minimize odors and reduce sound transmission

HIGH SCHOOL MODERNIZATION ESTIMATE

STATE COLLEGE AREA SCHOOL DISTRICT

PROJECT TYPE

High School - Renovations and Additions Estimate

PROJECT LOCATION

State College, PA

PROJECT SIZE

541,500 sf

TOTAL PROJECT COST

\$90,000,000

OWNER

State College Area School District
State College, PA

OWNER CONTACT

Mr. Ed Poprik
Facilities Director
State College Area School District
State College, PA
814-231-1026

ARCHITECT

Crabtree Rohrbaugh and Associates
Mechanicsburg, PA

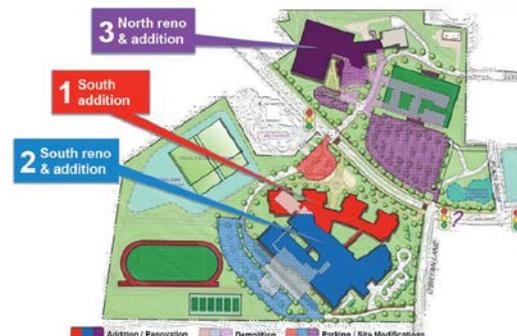


Construction estimating services were delivered after review of the project drawings and the scope of work to be performed was fully understood.

The estimate detailed costs associated with the proposed renovations and addition to the existing high school. The scope of the project includes:

- renovations & additions to the North and South campus
- demolition
- additional green space
- gym and natatorium renovations
- update code and ADA standards
- update campus safety and security systems

The approach focused on the collaboration between the designers, owners and sub-contractors. The estimate is a working tool to review constructability, address phasing and sequencing issues and achieve the highest level of value engineering.



SELF-APPRAISAL

- Alexander provided an estimate that confirmed that the estimate SCASD had already received was a viable budget. The final estimate number was used for the Referendum vote which resulted in a Yes vote to proceed with the project.
- To determine viability, Alexander utilized extremely detailed drawings from a previous school district job in order to get the most accurate estimate for this project.

- 10A) Please indicate your fixed fee for this project. The fee will be all-inclusive for services from schematic development through project closeout, including but not limited to all staff related travel and housing.**

\$2,849,650

- 10B) Please list a per-meeting fee for "other" meetings. (All direct, project-related meetings are included in the base fee, regardless of number required).**

\$0

- 10C) List any additional services or costs that could be incurred, including reimbursable expenses and include a fee schedule. (11.4: All indirect costs will be billed 1X, that is, no mark-up).**

Add alternate to be mutually agreed upon by the State College Area School District and Alexander Building Construction Co:

Assistant Superintendent -	\$235,000
Safety Director -	\$12,750

- 10D) Please indicate a plus/minus adjustment for each month deviation from the project September 2018 completion date.**

\$52,015