John Boyer, ’85 and his wife, Lenka, ’86 are celebrating the 20th anniversary of their AE firm, the Boyer Partnership, Inc. Their son, John II, is a 10th grade student at the Hollidaysburg area High School. James A. Shipe, ’02g has recently been named an associate at the law firm of Arent Fox, LLP in downtown Washington, DC, working primarily on large commercial real estate transactions. Gary Strand, ’82 has been promoted to associate principal at Simpson Gumpertz & Heger where he has been a structural engineer for the last 25 years. His work includes designing new structures, renovation existing structures, and developing creative structural solutions for unusual conditions. Bonnie B. Jurgensen (Buckley), ’99 and her husband Jason welcomed a son, Joel Thomas, to their family on Apr. 3. Bonnie is a design engineer with Shenberger & Associates, Inc. in Ohio. Shayna Bramley (Collins), ’99 is president of Bramley Design Group, a lighting design company in West Palm Beach, FL. Shayna is responsible for the lighting design of multi-million dollar residences, hotels, retail spaces, churches, car dealerships, 8000+ acre new residential developments, and site lighting calculations for new commercial parcels. Ken Robinson, ’89 of Kenneth B. Robinson & Associates, Consulting Structural Engineers, Inc. has relocated his office to downtown Mechanicsburg, PA. On March 11, 2007, Chad Clark, ’00 and his wife, Beth, welcomed their son, Noah Rori. Noah arrived weighing 7 lbs. 14 oz. and was 19½ in. long. Jason Weiss, ’95, associate professor of civil engineering at Purdue University was the recipient of the 2007 American Concrete Institute (ACI) Young Member Award for Professional Achievement. The award was established by ACI’s Board of Directors in 1997 to recognize the contributions of younger members of the Institute. Mark Hagen, ’02, After over 4 years in the Civil Engineering Corps of the Navy as a construction and facility manager, I am now working for OTIS Elevator in Pittsburgh. My wife Anne and I have a 6 month old son Luke. I also recently received my P.E. in architectural engineering. Angela Cottle, ’98 I started Maximize Your Spaces 3 years ago to help homeowners design and manage home improvement projects. I assist from design conception to completion. Last year, Kiddo Interiors was introduced. Helping parents make their homes family friendly and organized is a fun twist on our AE knowledge that I expanded on by going back to school for interior decorating. Spaces for kids are exciting and I love the opportunity to be creative and go extreme! My husband Ken and I have 2 beautiful boys Joey, 5 and Kenny, 3. We recently moved into a new home in Texas that, of course we had to renovate! When we are not working, we are a husband and wife competitive deep sea fishing team in the Gulf! Ronald Hunsicker, ’78 manager, architectural services, Glen-Gery Corporation, Wyomissing, PA. I provide technical training to architects and engineers; technical help line; and investigating product complaints. Member, Masonry Society and Masonry Standards Joint Committee. Phillip Elgin, ’01 staff engineer, Barber & Hoffman, Inc. Just changed locations from B&H Cleveland to Pittsburgh office. Now working with two other Penn State AE’s and a Penn State Civil.

AE Alums Win National Lighting Design Competition
Melissa Conchilla, ’95 of MAC Design Group, Harrisburg, PA, was a winner of the Cooper Lighting’s 30th Annual SOURCE Awards National Lighting Design Competition. Conchilla received a first place award in the Professional Residential category for the lighting design of a Colorado Springs home known as the Norsworthy residence. The other first place award, given in the Professional Commercial category, went to Jeff Gerwing, ’98 and Chris Coulter of Detroit-based SmithGroup, Inc., for the lighting of the Visteon World Headquarters located in Van Buren Township, MI.

The winners were recognized at Lightfair International 2007 in New York at a luncheon on May 7 in front of an audience of approximately 500 design professionals. Also presented were two honorable mentions and six student awards.

Conchilla and Gerwing were each presented with a check for $2,000 and a crystal trophy. They also received an invitation to attend a complimentary class at The SOURCE, Cooper Lighting’s state-of-art educational center.
The annual competition, focuses on furthering the understanding, knowledge and function of lighting as a primary element in design and requires the primary and predominant use of Cooper Lighting brands. Cooper Lighting has held this competition since 1977. Entries are judged on the blending of aesthetics, creative achievement, technical performance and the degree to which the lighting design met the project constraints and design concept goals.

2007 Outstanding Engineering Alumnus

The Department of Architectural Engineering is pleased to announce that James A. Faust, P.E., ’78, vice president, HSC Builders and Construction Managers in Exton, PA, has been named a 2007 Outstanding Engineering Alumnus of the College of Engineering. This is the highest honor conferred by the College of Engineering to its alumni.

He began his career in the construction industry in 1978 with Turner Construction Company. Over the next 18 years with Turner, he gained experience in all phases of project delivery including assignments such as project executive, project manager, project superintendent, area superintendent, field engineer, cost engineer and purchasing agent. He was responsible for numerous projects of more than $100 million in construction volume with over 30 staff.

In Oct. 1995, Faust joined Sordoni Skanska Construction Company. In Jan. 1997, he was promoted to vice president of construction and opened an office in the Philadelphia Marketplace. In this new assignment, Faust was responsible for all facets of the business unit including management of a professional staff of 24 who were involved in constructing an annual volume of over $50 million. In 2000, Faust was asked to expand his marketing role to include specific clients in Washington, DC and the federal government. In 2002, he was appointed operations manager at Skanska responsible for the operations of all Mid-Atlantic Division construction projects in the Maryland, Washington, DC and northern Virginia areas. These efforts led to the acquisition of over $500 million of new construction contracts and gaining market share and recognition for Skanska within this region.

In Aug. 2004, Faust accepted a position as vice president of project management for HSC Builders and Construction Managers in Exton, PA. In this new role, Faust is responsible for all facets of project management including staff resources and development, project acquisition, project execution, client management, and project controls. This role gives Faust the opportunity to implement the lessons he has learned over the past 27 years into a thriving, growing professional firm.

Outside of his successful business activities, Faust has been generous with his time and financial support of numerous charitable and philanthropic endeavors. He has a long-standing friendship with the AE Department and has maintained an active leadership role as a member of the Partnership for Achieving Construction Excellence (PACE). He frequently comes to campus to provide AE class lectures and seminars on state-of-the-practice issues related to the modern building construction industry.

Faust’s background is broad and comprehensive. His senior management skills and unusually diversified experience have contributed greatly to the success and growth of all the companies with which he has been affiliated. He is an excellent role model and mentor for the many architectural engineering students with whom he regularly interacts.

The faculty and staff of the Department of Architectural Engineering congratulate Jim Faust on the prestigious honor of being named a 2007 Outstanding Engineering Alumnus.

IN MEMORIAM

David John Juppenlatz, 49, of Drexel Hill, PA, died at home on Mar. 29, 2007. Born May 9, 1957, he was a son of Jane Warner Juppenlatz, of Lebanon PA, and the late John W. Juppenlatz, Jr. He is survived by his life partner Arthur Panfile; sister Claire Lundberg; brother Stuart Juppenlatz, both of Lebanon PA; two nieces and two nephews.

David was a 1975 graduate of Cedar Crest High School. He graduated from Penn State in 1983, with bachelor degrees in architecture and architectural engineering. He was employed by Ballinger in Philadelphia, PA as a senior project HVAC engineer, and was the previous owner of CJ Engineering. He was an active supporter of the Mann Music Center and enjoyed cooking, gardening and travel.

Triangle Men of the Century Award

Gifford Albright, ’53, professor emeritus and former department head, was a recipient of the Triangle Men of the Century Award at the July 14, National Convention of Triangle Fraternity held in Indianapolis, IN. Triangle is a Greek social fraternity comprised of engineers, scientists and architects. The award is intended to honor individuals for their outstanding professional success, continued dedication to their profession and community, and unrelenting loyalty to the Triangle Fraternity family.

Albright pledged the fraternity in his senior year at Penn State. Following graduation, he has been an active alumnus for more than 50 years. He served 10 years on the chapter alumni executive board, including positions of president and chapter advisor. In addition, he served a four-year term on Triangle’s national council.

He remains active in chapter operations as an ad hoc executive board member, and routinely attends alumni functions. He has served as a mentor and advisor to many fraternity members. In 2006, the local chapter of the fraternity honored Albright with the Penn State Triangle Distinguished Alumnus Award, a new honor bestowed upon only a handful of alumni.
Faculty Honors
Associate Professor M. Kevin Parfitt was honored as a recipient of the Penn State Engineering Society (PSES) 2007 Outstanding Teaching Award at a ceremony held on Mar. 30th in the Bayard D. Kunkle Activities Center on campus. Those selected for this award stand as exemplars of faculty excellence. Parfitt was joined by family, colleagues, and friends at the recognition ceremony.
Congratulations on a well deserved honor!

Joining Parfitt: (L-R) are sons Lee and Mark, wife Bonnie, and son Paul. His daughter, Elizabeth, was unable to attend the event.

ASHRAE’s Distinguished Service Award
For serving ASHRAE with distinction on committees and freely giving her time and talent on behalf of the Society, Dr. Jelena Srebric was presented with ASHRAE’s Distinguished Service Award on June 23rd at the Society’s 2007 annual meeting in Long Beach, CA.

Congressional Visits Day
Dr. William P. Bahnfleth, representing ASHRAE as a member of the board of directors, attended the Science-Engineering-Technology Work Group (SETWG) Congressional Visits Day in May. SETWG brings together professional, scientific and engineering societies, higher education associations, institutions of higher learning, trade associations and individual companies. ASHRAE members met with Representative John Peterson (R-PA), who serves on the House Appropriations Committee. The group is concerned about the future vitality of the U.S. science, math, and engineering enterprise.

“ASHRAE has a key role to play in maintaining the global competitiveness of U.S. science and technology and in solving the pressing worldwide problems of energy supply, protection of the environment, and indoor environmental quality.” said Professor Bahnfleth. “SETWG Congressional Visits Day provides an important opportunity for ASHRAE to join with other engineering, science, and technology organizations in meeting with our elected leaders to discuss these issues and to encourage support for the research, education and other programs needed to address them.”

IEC Co-sponsors Conference
Together with the Computational Epidemiology and Aerobiology Laboratory (CEAL), the Indoor Environment Center (IEC) co-sponsored the Pan American Aerobiology Association’s (www.paaa.org) Aerobiology 2007 conference, held on the Penn State campus June 8-11. IEC director, William Bahnfleth was a member of the Scientific Committee, and Indoor Aerosol Laboratory Director, James Freihaut, served on the Organizing Committee. The conference chair was Annalisa Ariatti, of the Penn State Department of Plant Pathology. The IEC organized two half-day pre-conference workshops, “Nuts and Bolts of Indoor Allergen Assays,” and “Modeling of Indoor Airflows and Aerosol Transport Using CONTAMW.”

Student Marshal
Heather Sustersic was the top 5th year student who, with the highest grade point average (3.80), was named the class student marshal to represent AE in the spring 2007 commencement ceremony. She graduated with an integrated bachelor’s and master’s degree.

During her academic career, Heather has also held part time jobs as a structural engineering intern with Hope Furrer Associates, Inc. and a lab technician in the Building Envelope Research Laboratory on campus.

She has won numerous awards including the ACI Pittsburgh Art Livingood Award; the Simpson Strong-Tie Company Structural Engineering Scholarship, the Society of Distinguished Alumni Scholarship; the Ristenbatt M&D Trustee Scholarship; the Fred and Kit Bigony Scholarship in Engineering; the Gladys Baird Memorial Scholarship; the Melvin Peters Endowed Scholarship; and the James M. Pohlen Memorial Scholarship.

A true student leader, she has simultaneously held student organization positions of president of Phi Alpha Epsilon and vice president of Tau Beta Pi, as well as serving as an AE student envoy. She is also a past team captain and competition coordinator with the Penn State Ballroom Dance Club.

In between juggling all of these activities, she also found the time to bake home made cookies and treats for the AE office staff and be a devoted wife and mother! She and her husband, John welcomed their new baby daughter, Charlotte, in August 2006.

The AE Department is pleased to announce that Dr. John Messner was granted academic tenure and promoted to associate professor. Congratulations!

Wedding Bells!
Best wishes to the happy couple!
In addition to being named student marshal, she will be awarded a life membership in the Penn State Alumni Association. Heather chose Prof. Moses Ling to serve as faculty marshal for the spring 2007 commencement (photo left).

**Commencement**

Commencement for the College of Engineering was held on May 18th. Architectural Engineering conferred 41 B.A.E., 13 M.A.E., 3 M.S., 6 M.Eng. and 1 Ph.D. degrees. An evening reception was held in the Bryce Jordan Center for the AE graduates, their guests, and AE faculty and staff. Congratulations to our most recent graduates!

**SSAE Option Social**

The Student Society of Architectural Engineers (SSAE) and the AE department co-sponsored the annual Options Social on Mar. 26, 2007 at the Nittany Lion Inn. Nine industry professionals represented the four options (structural, mechanical, lighting/electrical, and construction).

The event included a dinner for the professionals, a panel discussion, and a reception. Everyone who attended found the evening to be very informative and educational.

If you are interested in participating at next year’s option social, please contact Nancy Smith in the AE main office to have your name added to the mailing list.

**PACE Research Seminar**

The Partnership for Achieving Construction Excellence (PACE) Research Seminar was held on Apr. 24-25, 2007 at the Nittany Lion Inn. Held each spring, the research seminar combines presentations of research results and timely industry speakers for a diverse audience of building industry professional and university students. The theme for this year's seminar was “Building Respect.”

The Partnership for Achieving Construction Excellence (PACE) Round Table Meeting will be held on October 10 - 11, 2007. Registration details are available online at: http://www.engr.psu.edu/pace/index.asp

**IPAC Meeting**

The Industrial and Professional Advisory Council (IPAC) meetings were held in the College of Engineering on Mar. 21-22, 2007. AE faculty and student representatives consulted at length with nine members of industry. The focus of the discussions was on "Continual Quality Improvement" in preparation for ABET 2008.

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**Endowed Professorship Announced**

Dr. Richard Behr, department head and professor of architectural engineering, has been named the first recipient of the Charles and Elinor Matts Professorship in Architectural Engineering, effective July 8, 2007. The Matts Professorship was established in 2007 through the generous gift of Charles Matts '56 and his wife, Elinor, to be used by a scholar for the purposes of research expenditures, education, graduate assistantships and travel expenses.

Charles Matts is the retired co-founder and president of Schick Matts Corporation. A long time friend of the AE Department, Matts was named an Outstanding Engineering Alumnus in 2006. He also serves as a member of the AE senior thesis jury each spring.

Behr joined the AE Department in 1997. Under his leadership the department has achieved dynamic growth including extensive space renovations; new and revitalized research facilities; capital improvements to computer laboratories; and establishment of undergraduate teaching laboratories for hands-on experience, demonstration, and bench-scale equipment.

There has also been important progress in our curriculum, including streamlining and improvement of the core AE undergraduate courses; integration of all the options in our 5th year thesis; overall growth of our graduate program; establishment of the M.Eng. and integrated B.A.E./M.A.E. degrees; and numerous new graduate course offerings focusing on relevant building industry issues.

Behr diligently pursued the hiring of new, highly qualified AE faculty members. Of the current 16 AE faculty members, 11 were hired under his watch. Two of these were the first women faculty members in the AE Department.

Over the past 10 years, annual AE research expenditures from grants and contracts have more than quadrupled from $323,000 to more than $1.2 million. This includes an unprecedented five prestigious National Science Foundation Faculty Career Awards. Throughout his tenure as department head, Behr remained active as a researcher in the area of structural performance and durability of building envelope systems subjected to severe windstorm, earthquake, and accelerated weathering effects.

Industry and alumni relations with AE have grown strong steadily through support of department activities such as guest lectures; senior thesis jury; IPAC; AE Career Fair; and PACE. In addition to numerous new endowed scholarships and awards, two graduate fellowships; three academic excellence endowments; two professorships; and the Practitioner Instructor (PI) program have been either established or pledged. This phenomenal support from our friends and alumni will enhance the academic environment for the benefit of AE faculty and students for years to come.

Behr will step down as department head when the current search for a new AE department head is completed, perhaps as early as January 2008.

Please join us in congratulating Dr. Richard Behr on being named the first Charles and Elinor Matts Professor of Architectural Engineering and thanking him for ten years of outstanding leadership and service in the AE Department.

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**Department News**

Prof. Moses Ling is an outstanding professor and respected faculty member. His contributions to the AE Department and Penn State community are immeasurable. He has demonstrated exceptional teaching, research, and service, and has been a mentor to many students and colleagues. In recognition of his outstanding contributions, he has been awarded a life membership in the Penn State Alumni Association. Congratulations to Prof. Moses Ling! He will be missed, but his legacy will continue to inspire AE students for years to come.

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The 2007 Senior Awards and Recognition Banquet was held on May 4, 2007, at the Nittany Lion Inn. We were very pleased to present nearly $100,000 in scholarships and awards to outstanding AE undergraduate students. We are extremely grateful for the phenomenal generosity of our many alumni and friends who so faithfully support the AE Scholarship and Awards Program each year.

A panel of 47 industry professionals (listed below) met during the afternoon to judge the top eight fifth-year thesis presentations.

2007 Jury

Larry Baker
Mike Barnhart
Ken Baur
Glenn Bell
David Bernhardt
Joe Bocianoski
Jeff Caldwell
Cindy Cogil
Joe Di lenno
Jonathan Dougherty
Herb Duffield
Brad Ehlers
Matthew Farmer
Tom Forsberg
Todd Fritz
Hope Furrer
Pamela Garbini
Mark Gillespie
Paula Gillette
Bill Glassmyer
Brandon Harwick
Russell Heiken
David Holbert
John Kamer
Kevin Lapanne
Katie Lynahan
Frank Malits
Bob Marino
Chuck Matts
Jim McAllister
Bob McNamara
William McQuaid
Mark Mey
Charles Meyer
Bill Moyer
Kari Nystrom
Don Rimer
Frank Ruth
Jay Ruby
Scott Shirley
Ray Sowers
Rick Stoudt
Johann Szautner
Matt Tressler
Raj Vora
Joe Wisnewski
Ed Wunderly

Baker Ingram & Assoc.
Forrester Construction Company
High Concrete Structures
Simpson Gumpertz & Heger, Inc.
Providence Engineering Corporation
Buch Construction
James Posey Associates, Inc.
Smith Group
Ewing Cole
James G. Davis Construction Corp.
Furlow Associates, Inc.
Rathgeber/Goss Associates
Wiss, Janney, Elstner Assoc., Inc.
Ryan-Biggs Associates
Bovis Lend Lease, Inc.
Hope Furrer Associates, Inc.
CUH2A, Inc.
McKinney Properties, Inc.
Ellerbe Becket
Transystems Corp. - Consultants
R.G. Vanderweil Engineers, LLP
GRG Consulting Engineers
Holbert Apple Associates
Foreman Programs & Const. Mgrs.
HITT Contracting Inc.
Barton-Malow Company
Cagley and Associates
Mueller Associates, Inc.
Schick Matts Construction (retired)
ISEC, Inc.
McNamara/Salvia, Inc.
Johnson Controls
Buch Construction
Henry Adams, LLC
James G. Davis Construction Corp.
AltiereSeborWieber LLC
Burt Hill Kosar Rittelmann Assoc.
PA Dept. of General Services
Ruby + Associates
Clark Construction
ONCORE Construction, LLC
Turner Construction
Cowan Associates, Inc./
Representative of PSPE/PEPP
McClure Company
Southland Industries
Wisnewski Blair and Assoc. Ltd.
Burt Hill Kosar Rittelmann Assoc.
The AE department was pleased to host the annual AE Senior Thesis Kickoff Seminar on May 3, 2007, at the Nittany Lion Inn. The featured speaker was Roger Frechette III, director of sustainable engineering at Skidmore, Owings & Merrill LLP, Chicago, who spoke about the Pearl River Tower in Guangzhou, China.

The 71-story Pearl River Tower epitomizes the supertall corporate headquarters building of tomorrow: an iconic, high-performance structure that is designed in such harmony with its environment that it potentially produces as much energy as it consumes. (i.e., a “Zero-Energy Building.”)

From its form to its siting, every aspect of the 309-meter high (169,000 sm floor area) tower is designed to harvest wind and solar energy. Pearl River would face the prevailing winds and use them to relieve aerodynamically the structural burdens imposed by high-wind pressures. In short, wind forces are so well managed they become “invisible braces” that help fortify the building.

Pearl River Tower’s sculpted body directs wind to a pair of openings at its mechanical floors. The traveling winds push turbines which generate energy for the building’s heating, ventilation and air conditioning systems. The openings provide structural relief by allowing the wind to pass through the building instead of pressing against it. This design relieves pressure on the side facing the wind and reduces potentially damaging negative pressures on the back side of the building.

Energy consumption is reduced by maximizing natural daylighting, reducing solar gain in air conditioned spaces and utilizing solar gain for attaining the building’s hot water supply. The office tower is cooled by a combination of stack venting, radiant panel cooling and chilled beams. Solar collectors integrated into the façades transform the sun’s energy to usable AC current. Rainwater is retained for gray-water usage.

Frechette is a registered professional engineer with over 19 years of experience. His work includes many significant projects, from laboratories, hospitals, academic buildings, and corporate offices to a wide range of government buildings and museums. He is currently leading the engineering teams for the Burj Dubai, which is planned as the world’s tallest building, and the subject Pearl River Tower in China, which is the world’s first supertall "zero-energy" concept tower.

Frechette, and others from the Design Futures Council, helped to draft a document known as the “Nantucket Principles.” These principles provide a road map for industry leaders to educate their employees and clients regarding the benefits of a sustainable approach. An active speaker, Frechette has presented at a number of educational seminars on the topic of “Green Engineering.”

In 2001, Frechette designed the National Wildlife Foundation Headquarters Building in Reston, VA, voted by the AIA as one of the "Top 10" sustainable buildings in the country. In 2002, he designed the Peri Headquarters Building in Elkridge, MD, the first radiant slab building in the United States. In 2004, Frechette received Congressional recognition for his work in building sustainability.

**2007 Scholarships**
- Gladys M. Baird Memorial Scholarship
- Baker Ingram Assoc. Scholarship
- Beaver Scholarship in Heavy Construction
- Jack and Laraine Beiter Excellence Endowment
- Borda and Fersnls Families Scholarship
- Bovis Lend Lease Scholarship
- BR+A Consulting Engineers Scholarship in Memory of Prof. Jack Everetts
- BR+A Consulting Engineers Scholarship in Memory of Prof. Melvin Isenberg
- Cagley and Associates Scholarships
- Clark Construction Group Scholarship
- Clark Construction Group - Charles A. Merica Memorial Scholarship
- Class of 1975 Scholarship
- Class of 1999 Scholarship in Honor of Sharron E. Williams
- DeSimone Consulting Engineers Scholarship
- Ellerbe Becket Scholarship
- Ewing Cole Award
- John Flynn Memorial Scholarship
- Foreman Architects-Engineers Scholarships
- Foreman Program & Construction Managers Scholarship
- Louis and Judy Geschwindner Scholarship
- Hadco Lighting Scholarships
- Illuminating Engineering Society - Philadelphia Section Scholarship
- Johnson Controls Scholarship
- The Lighting Practice Scholarship
- Robert J. McNamara Scholarship
- Vincent L. Pass Scholarship
- Melvin H. Peters Endowed Scholarship
- Pittsburgh Builders Exchange Scholarships
- James M. Pohlen Memorial Scholarship
- John R. Potter Memorial Scholarship
- Franklin Ruth Memorial Scholarship
- Ryan-Biggs Scholarship
- Simpson Gumpertz & Heger, Inc. Scholarship
- SmithGroup Scholarship
- C. Herbert Wheeler Memorial Scholarship
- Michael J. and Virginia A. Youchak Scholarship

**2007 Awards**
- John J. Brinjac Memorial - Outstanding Performance and 5-Year Record of Study in AE
- Clark Construction Group - Charles A. Merica Award
- CUH2A - 4th Year Outstanding Performance in HVAC
- CUH2A - 4th Year Outstanding Performance in Illumination
- James G. Davis Construction - Outstanding Capstone Project Electronic Portfolio (CPEP)

(Continued on page 9)
Special Thanks

A special thank you to all those who generously sponsored the cost of some of the student meals at the Senior Thesis banquet. This is an enormous help to the department in defraying the cost of the banquet and is greatly appreciated by both the department and our students. Companies and individuals that sponsored students included:

Roger Arnold, JBA Consulting Engineers
Don Bahnfleth, Bahnfleth Group Advisors, LLC
Larry Baker, Baker Ingram & Assoc.
Rob Banas, Leach Wallace Associates
Ken Baur, High Concrete Structures
Glenn Bell, Simpson Gumpertz & Heger, Inc.
Joe Bocianski, Buch Construction
Lee E. Brandt, Horton Lees Brogden Lighting Design
Kevin Chamberlain, DeStefano Associates
Cynthia Cogil, SmithGroup
Dan Cuoco, Thornton-Tomasetti Group
Herb Duffield, Furlow Assoc. Inc.
Matt Farmer, Wiss, Janney, Elstner Assoc. Inc.
Adam & Heather Fernsler
Dan Fichtner, Providence Engineering Corporation
Hope Furrer, Hope Furrer Associates, Inc.
Pam Garbini, CUH2A Associates
Mark Gelfo, TLC Engineering for Architecture
Mark Gillespie, McKinney Properties, Inc.
Paula Gillette, Eilerbe Becket
Bill Glassmyer, Transystems Corporation
Christopher Hammelef, Hadco Lighting
Russell Heiken, GRG Consulting Engineers
Dave Holbert, Holbert Apple Associates, Inc.
Brian and Heather Hsi
Bob Kimball, L. Robert Kimball & Associates
Clement K. Fung, (Lighting/Electrical) completed his thesis project on the 68,413 sf Student Resource Building at the University of California-Santa Barbara. In addition to implementing alternative lighting designs for four of the spaces in this building, he also examined the feasibility of using an on-site building integrated photovoltaic system as well as switching out the current transformers with ones that are energy efficient. A LEED study was also done to see if it was possible to achieve more points by examining a few credits that were not attempted at the time of study. Finally, an architectural redesign of the exterior north east plaza was also proposed. In spring 2007, Clement graduated with his Integrated B.A.E./M.A.E. degree as well as a minor in Architecture. This summer he joined Skidmore, Owings and Merrill LLP in Chicago.

Paul J. Parfitt’s, (Structural) thesis project focused on Tower 333, an 18 story office building in Bellevue, WA. It included re-

Top Eight Senior Theses

The following seniors garnered top honors in their class when they presented their senior projects to a jury of industry professionals at the Nittany Lion Inn on May 4, 2007.

Corinne R. Ambler, (Construction) focused her senior thesis on the Health and Human Services Building at Coppin State University located in Baltimore, MD. This five-story, 150,000 sf academic facility will be completed in August 2008. Her technical analyses focused on minimizing solar heat gain by lowering an existing sunshade on the fifth floor and proposing a new lighting design for the overhead pedestrian bridge to create a prestigious symbol for Coppin State University. Corinne’s critical industry issue researched current strategies used to manage the risk of escalating construction costs and provided recommendations for managing the risk. She plans to rejoin Barton Malow Company’s Coppin State Health and Human Services Building Project Team in July and pursue a master of business administration.

Justin S. Bem, (Mechanical/HVAC) focused his thesis project on the integration of multiple building systems in order to save operating cost and energy for the Milton Hershey School's New Supply Center. The focus of his work included the use of direct fired chiller-heaters, condenser water heat recovery from walk-in freezers, and the use of dedicated outdoor air systems. The mechanical work also affected other AE disciplines and created an overall reduction in the project’s initial cost while saving energy and operating costs compared to the existing system. Bem plans to spend the next year working to complete his M.S. degree in AE before entering the workforce with James Posey Associates in Baltimore, MD, in May 2008.

Clement K. Fung, (Lighting/Electrical) completed his thesis project on the 68,413 sf Student Resource Building at the University of California-Santa Barbara. In addition to implementing alternative lighting designs for four of the spaces in this building, he also examined the feasibility of using an on-site building integrated photovoltaic system as well as switching out the current transformers with ones that are energy efficient. A LEED study was also done to see if it was possible to achieve more points by examining a few credits that were not attempted at the time of study. Finally, an architectural redesign of the exterior north east plaza was also proposed. In spring 2007, Clement graduated with his Integrated B.A.E./M.A.E. degree as well as a minor in Architecture. This summer he joined Skidmore, Owings and Merrill LLP in Chicago.

Katherine A. Jenkins, (Lighting/Electrical) completed her thesis project on William H. Gates Hall, the new law school facility at the University of Washington in Seattle, WA. Her thesis work included the lighting redesign of four spaces throughout the building and the redesign of several building electrical systems. In addition, she looked at the feasibility of implementing a rainwater catchment system to help offset the cooling tower makeup water requirements for the building. Upon graduation she will move to Seattle, WA, where she has accepted a position with Flack and Kurtz.

Paul J. Parfitt’s, (Structural) thesis project focused on Tower 333, an 18 story office building in Bellevue, WA. It included re-
designing the lateral force resisting system from a dual concrete core and perimeter moment frame system into a centralized concrete shear wall core system. Challenges for this study included designing for the high seismic region that the building was located in, as well as the fact that the building utilizes an existing foundation from another building that was abandoned during construction. Following Parfitt’s summer internship with Wiss Janney Elstner Associates in Denver CO, he will return to Penn State to graduate in December with his B.A.E./M.A.E. degree.

Andrew Rhodes (Mechanical) completed his thesis project on the Hilton Baltimore Convention Center Hotel, a multi-use facility set to open in downtown Baltimore in August 2008. His project involved the redesign of the existing building mechanical system by first conducting a chiller plant optimization study of the existing system, and then creating four design alternatives: district chilled water with a backpressure steam turbine, on site centrifugal cooling, on site absorption cooling, and on site absorption cooling with a backpressure steam turbine. Following graduation, Rhodes will join Southland Industries in Sterling, VA as a design engineer.

Heather A. Sustersic, (Structural) studied 855 N. Wolfe Street, Building L-1, for her thesis project. It is currently under construction in Baltimore, MD as part of the 80-acre New East Baltimore redevelopment. Since Building L-1 is a tenant fit-out biomedical research facility, Heather researched sensitive equipment floor vibration criteria and applied that research to a post-tensioned concrete building redesign. She explored the construction management issues resulting from the new concrete design and also evaluated the building wall envelope for potential failure mechanisms. Heather has accepted a full-time structural engineering position at the State College office of Hope Furrer Associates, Inc.

Tyler W. Swartzwelder, (Construction) focused his senior project on the Canton Crossing Tower in Baltimore, MD. Tyler was an intern with Gilbane Building Company on the project for two summers. The tower’s mechanical and electrical equipment were originally designed in a district system and were to be housed in the central plant. His redesign looked at eliminating that central plant and making the tower a stand alone system. From that, he decided that the initial design of the foundation as precast concrete piles should be investigated further. Swartzwelder’s redesign changed the tower’s foundation system to a cast-in-place concrete caisson system. For his research, he looked at creating a LEED Guide for developers. He analyzed forty different LEED topics and created a guide for four different types of developers. Following graduation, Swartzwelder will be working for Gilbane Building Company in Laurel, MD.

Awards (continued)

- Forrester Construction Ethics Award
- Holbert Apple Associates - 4th Year Outstanding Performance in Structures
- Howard and Callie Kingsbury Award for Excellence in Architectural Acoustics
- Gershon Meckler Memorial Award for Innovative Building Mechanical System Design
- Gilbane Building Company Award in Memory of Ralph Petrino
- Allan Naugle Memorial Award
- PACE Group - 4th Year Outstanding Performance in CM
- PACE Group - Outstanding Performance and Record of Study in CM
- Peerless Lighting Award - Outstanding Performance and Record of Study in Illumination
- Larry Perez Award - Outstanding Performance and Record of Study in HVAC
- PSPE/PEPP - Professional Practice Award
- Simpson Gumpertz & Heger, Inc. - Outstanding Thesis in the Area of Sustainable Design
- Southland Industries - Outstanding Thesis in the Area of Specialty Construction
- Class of 1985 - Structural Practice Award - Creative Design Solution
- Thornton-Tomasetti - Outstanding Performance and Record of Study in Structures
- Turner Construction - Hettema Leadership Awards

Senior Thesis Awards

- PSPE/PEPP - Best Overall AE Senior Thesis
- Acuity Brands/ Lithonia Lighting - First Place Lighting/Electrical Thesis in Memory of Mickey Woods
- Barton Malow Co. - First Place CM Thesis
- Cagle & Associates - First Place Structural Thesis
- Transystem Corporation - First Place Mechanical Thesis
- Balfour Beatty - Second Place CM Thesis
- Barton Associates - Second Place Lighting/Electrical Thesis
- Barton Associates - Second Place Mechanical Thesis
- Hope Furrer Associates - Second Place Structural Thesis

Next AE Career Fair

The next AE Career Fair will be held on Nov. 13, 2007 at Rec Hall on campus. Contact Lori Smith (lorismith@psu.edu) or check online for further registration details. www.engr.psu.edu/ae/job_placement/career_fair/index-precareerfair.asp

AE Jobs!

Are you an AE alumni who is looking for a job—or an employer looking to hire an AE graduate with a few year’s experience? Please check out our AE alumni job website at: http://www.engr.psu.edu/ae/job_placement/jobs_alum.asp

Job postings are free and provided as a courtesy to the alumni of the Architectural Engineering Department.
Angels in our midst...

AE 5th year senior, Bill Buchko organized a group of eight Penn State students and people from his local church and community to volunteer for a week in the Dominican Republic on July 13-20, 2007. The group visited Haitian refugee villages to distribute food, clothing and supplies in cooperation with Dominican Crossroads, a program dedicated to meeting the most basic needs of poor Dominicans. (www.dominicancrossroads.com)

Bill’s spirit of service began in high school when he attended Catholic Heart Work Camp. During his sophomore year at Penn State, he joined Project Haiti, a student-run organization operating out of Penn State’s University Park Catholic Campus Ministry. The group was founded in 1997 by Father Fred Byrnes, in an effort to make Penn State students more personally aware of the economic disparity that exists between those living in the United States and those living in developing countries. Bill traveled with this group to Haiti during spring break 2005. He reported, “I instantly fell in love with international volunteering.”

Due to political unrest and gang violence in Haiti, spring break 2006 yielded a trip to the Dominican Republic where he participated in the volunteer efforts sponsored by Dominican Crossroads (photo above). When some of his friends showed an interest in doing this type of work, he decided to organize a trip for them so that they could get involved in this rewarding humanitarian experience. Bill returned to the Dominican Republic in July 2007 to continue this good work. He also created a website to share his experiences with others.

http://www.personal.psu.edu/wjb170/Dominican.html

Plans are already underway to organize another trip to the Dominican Republic for summer 2008. Their goal is to raise enough money to build a house for a family while they are down there (approximately $3,000). If you would like more information on volunteering for this group, or to donate towards a very worthy cause, please contact Bill Buchko at (wjb170@psu.edu).

Penn State Students Shine at Lighting Awards

Three groups of Penn State students received Design With Light awards at the annual Illuminating Engineering Society of North America (IES) Philadelphia Section Award Banquet held Apr. 19, 2007.

Design With Light was started in 1999 by the IES Philadelphia section to raise awareness and understanding of the lighting design profession within the student community. Students from Philadelphia area degree-granting institutions and Penn State were invited to solve a design challenge with an original and innovative solution, and to express their solution through a presentation.

This year’s design project was the renovation of a retail shopping mall located in Madison, WI. Penn State winners included: First Place, Adam Kroll; Second Place, Jyotsna Bhamidipait and Gayoung Kim; and Honorable Mention, Nicholas Kutchi and Jason Green.

Phi Alpha Epsilon Initiation Ceremony

Phi Alpha Epsilon, the AE honor society, welcomed 29 new student members to its ranks on Apr. 23, 2007 at a ceremony and dinner held at the Allen Street Grill in State College.

Solar Decathelon Update

In May, Penn State’s entry into the 2007 Solar Decathlon, MorningStar Pennsylvania, was moved from the indoor CATO Park construction site to the site of the new Dickinson School of Law Building at the PSU University Park campus. With the help of the Alpha Fire Company, Valley Truck & Trailer, and the State College police, the framed Living Space of the MorningStar Pennsylvania was moved to the outdoor Gilbane Construction site to make room for the construction of the Montana Technical Core at CATO Park. The high-tech mechanical core includes heating, cooling, and water systems that focus on renewable technologies in a single unit to integrate green design engineering into residences. The MorningStar Montana is an affordable version of the MorningStar Pennsylvania that will be built in Montana, on the Northern Cheyenne Reservation this summer. The MorningStar Pennsylvania Living Space is now settled nicely on the Dickinson School of Law construction site, with Beaver Stadium and Mount Nittany in the background.

Additional information on the 2007 Solar Decathlon can be found online at: http://www.engr.psu.edu/greenbuild/index.asp. Or http://www.engr.psu.edu/ae/newsletters/ter/Fa06/solardecathlon.asp
Dear Alumni & Friends,

LETTER COMING!!

Yours truly,

Richard A. Behr, Ph.D., P.E.
Department Head
Charles and Elinor Matts Professor of Architectural Engineering
Department of Architectural Engineering

Alumni Update

Let us hear from you!

Name

Date of Degree(s) Option

Home Address

Home Phone

Employer

Address

Office Phone

E-Mail Address

Type of Organization

Occupation and Title

Responsibilities

Additional Comments (may be published in the next newsletter if applicable)

Have a message you want to share: fill out this form, or complete the Alumni Update Form on-line at the AE website at www.engr/psu.edu/ae/contact/Alumni-Update-Form.asp.
Penn State is committed to affirmative action, equal opportunity, and the diversity of its workforce.

U.Ed. ENG 08-04