the RAM BUILT experience
Creating the RAM BUILT Experience

Over the last few years, we have engaged in building a strong foundation for an exceptional Construction Management program at CSU. Dedication to a cause greater than one’s self is key to realizing success and happiness. A shared commitment to this philosophy creates a family-like environment in which all members are working together to achieve a common goal.

It is this belief and this supportive environment that have guided our faculty, staff, students, and industry partners to build a strong foundation for our construction education program at Colorado State University. Department-wide, we continually support the success and well-being of every individual member of our family. We appreciate and celebrate our achievements as individuals and as a team. Simply put, we care – about each other, our department and students, and our contribution to construction education and the construction industry.

Now we are focusing our efforts on innovation, enrichment, and partnerships to elevate our program in becoming a center for lifelong learning. When we are consistently delivering extraordinary graduates who exemplify leadership and service, when we serve as a model for other construction management programs, when the industry prospers as a result of its partnerships with our program, then we will know we are true to our values and, indeed, are a part of something larger than our individual selves.

We need your help in writing a new chapter in the history of construction education at CSU. By working with faculty and students, injecting your ideas and experiences into the program, and supporting students, faculty, research, and key initiatives, you will help us create the leaders who will lead and transform construction education and the construction industry.

With your help and friendship, we will realize our dream of creating a business-like culture with the financial stability to innovate. I welcome you to join our family and contribute to achievements that will lead to success and happiness – for each of us individually and for our department, industry, and communities.

Mostafa Khattab
Head, Department of Construction Management
Greetings From Dean Jeff McCubbin

Greetings from Jeff McCubbin, new dean of the College of Applied Human Sciences.

I am honored and excited to be serving the College of Applied Human Sciences as the next dean. Since beginning here at Colorado State, I’ve had the pleasure of getting to know many of the faculty, students, and staff in the college, and several of our construction management alumni and members of the Professional Advisory Development Board. I look forward to meeting many more of you throughout the coming year.

We are pleased to commemorate the 65th anniversary of the Department of Construction Management in 2011, along with the 25th anniversary of the College of Applied Human Sciences. Despite financial challenges caused by decreased state support and a sputtering economy, CM has a bright future. Our alumni and industry partners play a valuable role in supporting our students. Partnerships with industry have been responsible for increased student scholarships and faculty support, two endowed faculty positions, and upgraded facilities including the state-of-the-art Preconstruction Center.

As CSU enters the final year in the $500 million Campaign for Colorado State, you will continue to be a critical partner, inspiring our students and faculty by believing in our shared mission.

This year, I plan to spend much of my time traveling and visiting with you – our alumni and friends. I look forward to meeting you, thanking you in person, and asking for your continued investment in our College. Please call on me at any time with your questions, comments, and ideas for our shared success.

Jeffrey A. McCubbin
Dean, College of Applied Human Sciences

Celebrating Service Milestones

The CM department is proud to recognize the service milestone achievements made by three of its faculty in 2011:

Mike Cole, who teaches the construction surveying course, has 20 years of service to his credit.

Bolivar Senior began working at CSU 15 years ago and currently teaches the Financial Management for Construction course.

Mike O’Reilly, instructor for the structures course, has been at CSU for 10 years.

The CM department and CSU look forward to working with these exemplary individuals for many more years to come.
Industry Partnerships

Kiewit Brings Heavy Civil Lab to CSU

Students in the CM program will soon have a new laboratory specifically designed for the study of soils in the construction environment as part of the heavy civil construction focus. Thanks to the support of Kiewit Companies, the new Heavy Civil Laboratory in the Industrial Sciences Laboratory building will be ready for use in the Fall 2011 semester. The laboratory contains soil testing equipment and an excavator bucket, as well as examples of aggregate identification, a concrete bell pier estimating illustration, bridge design models, small equipment models, and foam cubes demonstrating the difference in one cubic yard of material versus one cubic foot.

“Kiewit is proud to sponsor the construction of the Colorado State University Construction Management Heavy Civil Lab,” said Lauren Evans of Kiewit University Relations. As a prime example of a valuable department-industry relationship that helps educate students and prepare them for their careers, the Heavy Civil Lab has two primary objectives: (1) support the learning objective of having students experience heavy civil construction and develop skills that will be profitable to companies in all construction markets, and (2) prepare students to estimate or plan work activities relating to soil composition, material testing, aggregate uses, or creative problem solving considering resource availability. “These objectives are achievable through the commitment of industry partners,” Evans, an alumna of the CM program, explains, “but more importantly, through the dedication of the faculty and staff within the construction management program.”

Will White, CM alumnus and Kiewit Central District Sponsor, recently expressed this same gratitude and also his excitement about being involved in the program. “It has taken a lot of hard work and commitment from Mostafa Khattab and his team to make the heavy civil market of construction a priority at the CSU construction management program. I feel fortunate to be able to contribute and repay the school that gave me the opportunity to be successful.”

The Heavy Civil Laboratory will help reinforce the need and desire for civil construction, including grading, drainage, paving, and other necessary infrastructure aspects, to continue to be included in construction education. “With post-secondary construction management education focused primarily on vertical construction, we are pleased the program’s leadership presented (Continued on page 5)
LEED GA Trainings at CSU

CM students and local industry professionals congregated at CSU Saturday, November 15, 2010 and Saturday, May 7, 2011 to participate in free, day-long trainings for the LEED Green Associate (GA) Exam. The program was organized by CM faculty member Caroline Clevenger. The Associated General Contractors of Colorado (AGC) and the Mechanical Contractors Association of America (MCAA) sponsored the program, making it free to registered CSU CM students.

Those who attended the seven-hour class were given an introduction to the LEED process and green building in general. Attendees were also exposed to specific materials and information to help them in passing the LEED GA Exam.

A valuable take-away from the presentation was an extensive power-point handout and access to the trainers’ database of test preparation questions. The database includes seven practice exams, similar in format and content to the actual US Green Building Council’s LEED Accreditation exam.

End of class surveys demonstrated that students were enthusiastic about their experience and that the class was a big success. Participants felt that the course was extremely beneficial as they prepare to take the LEED GA exam. Comments on the end of class survey included: “This class was great and the instructors were great at keeping the attention of the audience,” and, “Make it required for CM students.”

Kiewit Heavy Civil Lab Continued from page 4

an opportunity for us as industry representatives to help horizontal construction come alive to the students and enhance their understanding of ‘anchor bolt down’ construction terms, resources, and processes,” commented Evans. “Kiewit is grateful for the contributions from others who share in our commitment to supporting construction education: Wagner Equipment, Honnen Equipment, Manitowoc, Paseo Corridor Constructors (a Joint Venture of Kiewit, Clarkson, and Massman), Kuka Sales Group, ACH Foam Technologies, School Specialty, and Connell Resources.”

As a result of this new focus for Kiewit’s partnership with the CM department, the room formerly sponsored by the company, 226 Guggenheim Hall, has been remodeled into three offices for CM faculty. These will also be finished by the end of the fall 2011 semester.

LEED GA Training Offered Again in Fall 2011

Thanks again to the grant funds awarded to Associated General Contractors (AGC) of Colorado, the CM department is pleased to announce that the LEED GA day-long training was once again offered in Fall 2011. Over 50 students signed up for the opportunity to take advantage of this valuable sponsored training.
Industry Partnerships

First Industry-Academia Symposium a Great Success

Sixty construction industry professionals from a wide range of professional backgrounds attended the first Industry and Academia Research Symposium on November 4 in Denver. The event was organized by CSU’s Department of Construction Management Professional Advisory Development Board (PADB) and hosted by the Associated General Contractors (AGC) of Colorado and the Colorado Association of Mechanical and Plumbing Contractors (CAMPC).

The goal of the Symposium is to create a dialogue between the department faculty and industry professionals to advance construction education and practice. The format of the first Symposium was a half-day conference consisting of three sessions each with three 10-minute presentations by CM faculty and leading industry professionals with a twenty-minute period of questions and answers following each session.

This year’s Symposium centered on engagement and had presentations under the track headings of Construction Performance Improvement, Legal Aspects and Safety, and Building Information Modeling (BIM) and Sustainability.

By all accounts the event was a resounding success and, based on positive initial feedback, the PADB plans to make the Symposium an annual event, although attendees suggested holding the event even more frequently. Comments and feedback included, “This is a great start to bring academia and industry together and was great to see how the research process works for both sides,” and, “Good information, and overwhelming knowledge to understand building performance and science in the correct application.” In general, the Symposium led to many exciting interactions between academia and industry for both individuals and organizations. Participants left with a positive outlook and an expectation of more opportunities for collaboration in the future.

The Symposium was sponsored by AGC of Colorado and CAMPC. Additional support was provided by the Construction Mastery Institute. Plans are underway for the Second Annual Industry and Academia Research Symposium on November 3, 2011, and details will be released on the CM website at www.cm.cahs.colostate.edu when available.

Funk Recognized for Service-Learning Excellence

Loren Funk (left) accepts the Instructional Innovation in Service-Learning award at the Celebrate Colorado State awards reception on April 26, 2011.

CM Assistant Professor Loren Funk was honored with the Instructional Innovation in Service-Learning Award at the Celebrate Colorado State awards reception on April 26 for his involvement in the implementation of the CM Cares initiative. This exceptional honor recognizes a CSU faculty member who demonstrates an innovative contribution to service-learning curriculum development and/or community outreach.

Funk insisted that recognition should go to more individuals than himself. “The success of this leadership course and the CM Cares program is due to a team effort among the CM students, faculty and staff and the donors that care about our projects,” he said. CM staff member Kristin Haller, on the other hand, said, “Loren’s passion and dedication to the students and the CM Cares program really drive the energy behind it. While it is a team effort for success, Loren is the glue that holds it all together.”

Held yearly in April, Celebrate Colorado State is an annual opportunity to recognize the achievements of the campus community over the past year.
HED Awards Grant for International Collaborative Project with Mexico

The United States Agency for International Development (USAID) and Higher Education for Development (HED) has awarded an $800,000 grant to fund a program entitled “Promoting Opportunities for Development, Education, and Resilience (PODER): Green Construction Institutional and Human Development”. A collaborative, cost shared effort with the Universidad Iberoamericana (UIA), Tijuana campus, Colorado State University will contribute $200,000, and the UIA will contribute $23,000 to the project. CSU’s Department of Construction Management Assistant Professor Carla Lopez del Puerto will be the principal investigator with CM Department Head Mostafa Khattab as co-principal investigator.

The partnership between CSU and the UIA Tijuana campus will strive to address issues of rising illicit drug trafficking and use among Mexican youth by introducing them to entrepreneurship opportunities in green construction. The project is funded under USAID/Mexico’s Training, Internships, Exchanges and Scholarships program, also known as TIES.

Lopez del Puerto’s innovative application focused on the socioeconomic issues that face a particular group of poverty-stricken Mexican youth who neither work nor study. Due to a lack of technical skills required to make them productive members of society, these young adults are more susceptible to turning to the illicit drug trade. Lopez del Puerto notes that, “Without addressing the core social and economic issues, the revolving door of drug trafficking, substance abuse, and crime will continue to spin out of control. It is therefore important to provide those individuals with the skills necessary to secure gainful employment and resist involvement in illicit drug use or trafficking.”

The goal of the program is to use the construction industry’s potential of creating small and medium-sized businesses that employ adequately trained workers to improve the lives of underprivileged youth in Mexico. Graduates of the program will receive assistance in obtaining and retaining employment that will generate livable wages for themselves and their families. UIA itself will benefit through the development of instructional support materials, development of the train-the-trainers workshop to reach out to local Tijuana residents, the addition of career assessment and counseling services, assessment and quality assurance of the program, and the establishment of a sustainable collaboration between UIA and various non-governmental organizations to assist program participants and their families.

Created by executive order in 1961, USAID is the principal United States foreign assistance agency that aids countries recovering from disaster, attempting to emerge from poverty, and advancing democratic reform. HED works with USAID to support the involvement of higher education in issues worldwide by funding partnerships that pair U.S. higher education institutions with higher learning institutions in developing nations.
Kelly Strong Joins CM Family

Following an extended search process in the summer of 2010, the CM family is pleased to welcome its newest faculty member, Kelly Strong, to begin teaching in the fall 2011 semester. Strong is coming to CSU from Iowa State University where he taught in the Civil and Construction Engineering department since 2003, and he brings several years of industry experience to the program that should be invaluable to CSU’s students. “We look forward to working with Dr. Strong to build further on the structure of a quality education provided to our students by our excellent faculty and staff,” said Mostafa Khattab, CM department head.

Research Background
In his own words, Strong’s research can be categorized into four general areas: decision-making, focused specifically on risk management; stakeholder issues, especially regarding effective project management, innovative contracting and partnering; sustainable design, primarily integrated systems; and education/teaching effectiveness, particularly innovative curricula, effective use of student teams, and program development/retention issues in higher education. His research philosophy is embedded in a desire to help project managers make better decisions regarding efficient use of time and money, work more collaboratively, and utilize accessible technology, all to improve communications with stakeholders and use their investments in projects most effectively. Many of Strong’s current research efforts are directed toward transportation infrastructure needs. “With the growing gap between transportation infrastructure needs and available funding, research on efficient resource use is critically important,” he notes.

Teaching Philosophy
Beyond the mastery of course content, the overarching objective of Strong’s teaching is to help students develop problem solving skills that will better prepare them to become leaders in their chosen organizations and industries. “The ability to identify a problem, search for relevant information, analyze possible solutions, and effectively implement change represents skills that can be applied to any discipline or career,” he says. “Many students will change jobs or even careers several times in their lives, and even those who don’t change professions will face situations not addressed in the strict confines of an academic classroom.” Strong’s classroom approach emphasizes activity-based learning and direct observation through assignments such as field trips, interviews with industry leaders, and social/professional networking. Upper level courses and graduate seminars rely more on the use of analogy and comparative logic through in-class, instructor-led discussion. With appropriate guidance, Strong attempts to utilize self-discovery and encourages “trial and error” learning to promote innovation. He views his role as more of a facilitator of knowledge and provider of resources rather than as a conveyer of information intended for memorization.

(Continued on page 9)
Kelly Strong  Continued from page 8

Setting Up CMARC
Along with his teaching duties, Strong will be the new director of the Construction Management Applied Research Center (CMARC) in the CM department, and he has impressive plans for developing and further establishing it. “My first priority for CMARC is to meet with as many construction industry leaders as possible and identify the needs of the industry to develop applied research programs that can help them meet these needs.” Strong also hopes to position CMARC as a construction knowledge center for local, state, and regional government and public service agencies. “CMARC can be the clearing house for programs on construction work zone safety and mobility, green design and construction, asset management, innovative project delivery, technology implementation, and effective project management and partnering,” he says.

Program Is ‘Impressive’
The decision to transition from Iowa to CSU was not merely based on the appeal of Fort Collins as a community, with its mountain scenery, lovely weather and extensive list of recreation activities, though these certainly appeal to Strong and his wife, Joni. “My wife and I both went to school in Colorado and worked here for a time before starting our family and moving back to the Midwest, and we are both very excited about the opportunity to return.” Above all, though, the exceptional quality of the CM program at CSU became the main draw for Strong. “I am excited to be joining the CM program and working with such a talented and dynamic faculty and staff,” he says. “I am also particularly impressed by the industry relationships that have been developed over the past five years, which are essential to the long-term growth and stability of the program. I think the future is very bright for CSU’s CM program.”

Senior Co-Authors CM Textbook
The 4th edition of Wiley & Sons, Inc.’s Construction Management was published in November. Daniel W. Halpin and CM Associate Professor Bolivar Senior are co-authors of this popular textbook, whose previous editions have been published in Portuguese, Spanish, and Chinese, among other languages. This edition also has an International Student Version, originally in English, which was published in the spring of 2011.

According to Wiley Publishing’s website, “This text has been used widely and has become a fairly standard course text at many universities. The first three editions have enjoyed wide success as an introductory treatment of the subjects which are critical to success in the construction industry.”

The fourth edition contains new exercises and boasts two new chapters covering the financial aspects of construction companies and projects. There is also extended coverage of the topic of scheduling that focuses on the relationship between activities in a network schedule.

CM Family

This summer, the College of Applied Human Sciences welcomed a new dean, Jeff McCubbin. McCubbin came to CSU from Oregon State University where he served as Executive Associate Dean and a distinguished professor in the College of Health and Human Sciences.

Following a teaching career of nearly thirty years, Professor Brian Dunbar retired from the CM department in May. He will remain on campus as the director of the Institute for the Built Environment in the College of Applied Human Sciences.

Associate Professor Angela Guggemos has received tenure. Guggemos joined Colorado State’s CM faculty in 2004 as an assistant professor and is now Assistant Department Head and Undergraduate Program Coordinator in addition to her professorship.

Kristin Haller has transitioned into a new role in the CM department as Assistant to the Department Head and Graduate Program Advisor. Haller joined the department in 2008 as the key advisor and quickly became a valuable resource for all advising inquiries, processes, and rules thanks to her previous experience as an advisor and career counselor at CSU. She will now extend her knowledge and expertise to the Front Office to assist with other initiatives, including CM Cares and development.

With Haller’s move to the front office, Steve Gaisford now serves as Key Advisor for all CM undergraduate students.
After finally achieving the first phase of its fundraising goal, the CM department conducted a search for a candidate to fill the position of Endowed Heavy Civil Chair and thus further advance the department’s goal of establishing a heavy civil focus in the curriculum. In August, the offer was made to candidate Champney “Cam” McNair, who will begin teaching heavy civil-related courses this fall.

McNair earned his bachelor’s degree in civil engineering from Georgia Institute of Technology and was commissioned a Second Lieutenant in the United States Army upon completion of the ROTC program. He served for twenty years as an officer in the Corps of Engineers and retired as a Lieutenant Colonel in 1993. Upon completion of his military service, McNair began a career in municipal government by working as City Engineer for Peachtree City, Ga., for five years. He then moved to Colorado where he served as City Engineer for Fort Collins and then Colorado Springs.

“I am extremely pleased and fortunate to be embarking on a third career as the Heavy Civil Endowed Chair at CSU,” said McNair. “With years of experience and numerous contacts in the construction industry in Colorado, I am looking forward to the challenge of helping to train the next generation of heavy civil construction managers. I hope to bring to CSU the public agency perspective of the heavy construction business, and to pass along some of the keys to successful project management that I have learned in my previous two careers.”

McNair’s educational credits also include a Master of Science in civil engineering from CSU, a Master of Arts in National Security and Strategic Studies from the US Naval War College, and a Master of Science in Management from Salve Regina University in Rhode Island. He is a registered Professional Engineer in Colorado, Georgia and Virginia, and an active member of the American Society of Civil Engineers (ASCE), the National Society of Professional Engineers (NSPE), the American Public Works Association (APWA), the Society of American Military Engineers (SAME), and Chi Epsilon, the national civil engineering honor society.

McNair will be teaching Construction Equipment and Methods (CON366) and Soils Engineering for Construction Managers (CON469) during the fall 2011 semester.
Service-Learning Course Benefits Community

This spring, the CM department offered Applied Sustainable Project Delivery, an experimental service-learning class focused on sustainable design and construction. This course, supported by a Service Learning Faculty Mini Grant from The Institute for Learning and Teaching (TILT) at CSU, engages at-risk teens and the community through a hands-on service project and empowers CM graduate and undergraduate students to be leaders, stewards, and mentors by managing a community project focused on sustainability. The course supports the CM Cares initiative, the main objective of which is to infuse the traits of community service, leadership, team building, and ethics throughout the culture of the CM Program through CM-related community service projects that allow students to apply classroom skills in real-world applications.

Assistant Professors Caroline Clevenger and Mehmet Ozbek teamed up with Centennial High School and Unless Design Collaborative to have CSU students work directly with high school students in the shop for six weeks to build two sustainable doghouses. These structures benefitted and increased awareness for the Rocky Mountain Great Dane Rescue, Inc. (RMGDRI), a non-profit organization that rescues, rehabilitates, and re-homes Great Danes. Dustin Kalanick, co-founder of Unless Design Collaborative, a non-profit design services firm based in Loveland, Colo., worked tirelessly in classrooms at both CSU and Centennial to design the doghouses and assist CSU students with creating lesson plans and teaching high school students about construction and sustainability. Jerry Kreisher, the trades shop teacher at Centennial High School, supervised the students as they were working together in the shop.

Along with CSU faculty, Kalanick and Kreisher provided the experience, support and confidence to help CSU students seamlessly transition to working with youth and were instrumental in facilitating a successful collaboration and learning environment. Both received the Exceptional Achievement in Service-learning Community Partnership Award given by the University at the Celebrate Colorado State Awards on April 26. “It has been an amazing and rewarding opportunity to work on this project,” said Kalanick. “We are excited to see both the university and high school students empowered as leaders and teachers through their hands-on work that will benefit RMDGRI and the community.”

The sustainable doghouses were unveiled on April 11 at an all-school ceremony at Centennial High School. They were also showcased at CSU’s Sustainability Fair in Lory Student Center Plaza on April 20 and Fort Collins’ Earth Day celebration at Civic Center Park on April 23. At the Earth Day event, RMDGRI placed a record 6 dogs in new homes.

Service-learning is a teaching approach that integrates learning into a community service experience and empowers students to be leaders, stewards, and mentors by managing a community project focused on sustainability. The course supports the CM Cares initiative, the main objective of which is to infuse the traits of community service, leadership, team building, and ethics throughout the culture of the CM Program through CM-related community service projects that allow students to apply classroom skills in real-world applications.
Faculty Creates Art in Guggenheim

Faculty members in the Department of Construction Management are multi-faceted individuals with talents that shine both inside and outside the classroom. Ron Holt, interim Phelps Endowed Chair and CM’s “resident artist,” accepted the task of sprucing up the walls of Guggenheim Hall, the home of CM, to convey the department’s appreciation of individuals and entities that have helped to shape CSU’s CM program. Three new murals have been created in the hallways on the first floor to convey to students and visitors the dedication of CM’s industry supporters, CSU advocates, and department leadership to build the best construction education program in the country.

Tribute to Friends
Utilizing base ideas from CM department faculty and staff, Holt spent several weeks during the spring and summer months painting the murals and arranging photographs to create the visually stunning works of art. The first new addition, located in the west hallway outside room 118, is dedicated to Friends of the Department. “Simply stated, without friends from the industry, those who have gone above and beyond to make our program the best, we would not exist,” said Holt. “Our purpose is to create new industry leaders, students who will fill the positions that make our industry so great!” The mural depicts the construction industry and includes scenes of homes powered by wind turbines, a bridge extending from a tunnel bored into a mountainside, and outlines of industrial buildings. The center of the design contains silhouettes of construction men and women collaborating on the future structures of the world. In the foreground on the right is the “Industry Express,” a train with cars titled Leadership, Commitment, and Passion, traits that department friends continuously display. According to Holt, when viewed as a whole, “the mural shows that we receive support from every area of the construction industry. It is a way of showing how greatly it is appreciated.”

Honoring Our Leadership
The second mural, located in the east hallway outside room 107, is titled “Department Leadership: The Road to Excellence.” The display includes photos of the CM department’s leaders over the years and images of various construction projects around campus in which industry has participated that helped build the Road to Excellence. The road depicted in the mural winds through mountains and climbs higher with each curve.

Meet the Artist
Ron Holt was born in Harrison, Arkansas and spent much of his early life along the beautiful Buffalo River. There amidst the rugged Ozark Mountains, his ancestors carved a place for themselves. Since early childhood, Holt has pursued art and found this God-given gift very enjoyable. He received a degree in art from the University of Missouri and a Masters in Construction Management from Colorado State University.

College summers found him working in Jackson Hole, Wyoming giving tours down the scenic Snake River. This opportunity to study wildlife in nature, along with his own roughly hewn heritage, provides inspiration for many of his works. Holt works in oil, acrylic, and watercolor for his paintings and his bronze sculptures appeared in the Loveland Sculpture Show for four years. His bronze and painting compositions include attention

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symbolizing the department’s drive for excellence in construction education that continually, through great department leadership and visionaries, climbs higher each year. The quote at the bottom by John Quincy Adams, sixth President of the United States, sums up what CM department leaders have done and why they are called leaders: “If your actions inspire others to dream more, learn more, do more and become more, you are a leader.”

Ram Built CSU Advocates
The latest design to grace Guggenheim’s walls is one to honor Hard Hat Award recipients. This wall honors individuals within Colorado State University or the CM department that have in some way shown support to the department above and beyond normal responsibilities. The mural depicts a ram, the symbol of our students at CSU, standing on a rock outcropping representing the solid foundation and support for CM rams that these individuals have supplied. The mountains in the background suggest the heights to which our students can climb thanks to the support of the award recipients. The bald eagle on the left represents CM students’ ability to soar on the wings of the support received, and the flock of geese on the right represents the teamwork of all individuals working together to help make CSU CM rams successful in their futures.

“It has been my desire through these murals to give our students a visual representation of not only the greatness of the support we receive, but the impact that true leadership from industry and from our own department has made in their lives through the continual striving for excellence,” said Holt. He goes on to note that these artistic additions to Guggenheim are just like any other construction project.

“Construction is an art form. Each project is a vision created by someone for someone. Through the creative construction process each vision becomes a three-dimensional reality. Our students become a guiding force in this creative process by bringing all elements together in a cohesive manner to complete the artistic process in a timely, efficient and cost-effective manner. The end result can then be enjoyed by all.”

Ron Holt
Continued from page 12
paid to the tiniest details which thus captures the drama, mood and beauty of his subjects to perfection. He also creates photographic realism in his graphite portraits and is an avid photographer.

Holt’s works are found in private and corporate collections around the United States and overseas. He currently works out of his studio in Loveland, Colo. To see more of Holt’s pieces, visit www.ronaldjholt.com.
CM Cares Program Going Strong

The mission of the Department of Construction Management (CM) is to advance the knowledge and practice of construction management for the betterment of society through teaching, applied research, and service to local, national and global communities. The newly developed CM Cares program plays a major role in accomplishing this mission by providing CM students the opportunity to serve their communities through projects that apply their classroom skills to real-world situations.

CM Cares, established in Spring 2011, is a service-learning program sponsored by the CM department to infuse the traits of community service, leadership, team building and ethics throughout the culture of the CM program through construction-related community service projects. The program includes a Construction Leadership course involving guest lectures from industry leaders on the non-technical aspects of running a successful business, such as leadership, ethics, team building and creating company culture. Students from this course serve as leaders of the various CM Cares projects and work on identifying community service agencies in need, fundraising, matching volunteers from specific CM classes to the projects’ needs, and mentoring and organizing the volunteers.

Currently, four projects were completed in Spring and early Summer by CM Cares student volunteers, and one is still underway. Non-profit organizations, school districts and individuals in need are all benefitting from the time and commitment of CM students invested in their communities. Each project relies on donations of funds and materials to succeed, and industry and community members have proven their dedication to the program through generous contributions.

Alternatives Pregnancy Center (APC)

This project involved the design and construction of a remodeled client bathroom, conference room base cabinet, and a wall closure feature for a staff person’s office at the APC Denver headquarters. The volunteer group raised over $1,300 for the project, including material donations from Ace Hardware and Fastenal in Fort Collins, and monetary contributions from Mortenson Construction and Goodell Machinery and Construction. When asked about the CM Cares program and its benefits to students and communities, CM student Bret Goodell said, “There are more things in life than a good job and nice car. By helping other people you are giving more than just a material gift.”

Amaro Project

Volunteers completed a two-bedroom addition to the one-bedroom home of a Lakewood grandmother raising four children, two of whom have special needs. The group overseeing the project raised $3,100 in donations: monetary donations from Denver Transit Construction Group, TIC, Western Summit Constructors, and Bellview Community Church, and contributions of labor and materials from U.S.
Engineering, RG Insulation, Rocky Mountain Forest Products, and Ace Hardware. All mechanical labor and materials were donated anonymously. Over 100 hours of work by CM Cares group members and volunteer CM students went into the project. “This group of students is not only helping meet the critical needs of this family, but is making dreams come true. It is one thing to have a vision and another to have the means and know-how to get it done,” said Diana Martinez, an Amaro family friend and advocate.

John Ray Memorial Greenhouse
Bennett Elementary School in the Poudre School District asked CM Cares for help with the design of a greenhouse to benefit the school and its surrounding community. Construction will begin in Fall 2011. The group began working on the plans for the greenhouse and discovered that building one requires the expert input of a horticulture professional, so CM Cares teamed up with CSU horticulture employee John Ray for assistance. Sadly, John unexpectedly passed away mid-

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Fulbright Scholar Visits from Egypt

In November 2010, Nessreen Y. Abo-Moussallam arrived at CSU for a three-month stay as a Fulbright Scholar from Helwan University in Egypt. CM department head Mostafa Khattab and faculty member Caroline Clevenger met Abo-Moussallam while in Egypt in October as part of the Fulbright Specialist Program. A graduate teaching assistant with the applied arts faculty at Helwan, she was awarded her Fulbright scholarship in July 2010.

While in Fort Collins, Abo-Moussallam took several courses during the Spring 2011 semester, including Brian Dunbar’s CON 576 course, Sustainable Technology in Built Environments, a class of which she was particularly fond. Her research revolves around futuristic city design in developing countries, especially how the use of new technologies and eco-urban systems could help establish a new paradigm, assist as an effective tool in the design process, and be utilized in developing third world countries. At CSU, she performed research on building integrated photovoltaics for urban landscapes, and, together with Clevenger, co-wrote a conference paper entitled, “Re-Used Display Systems as Sustainable Media Facades,” which was accepted at the Computer Human Interaction, or CHI, 2011 Conference on Human Factors in Computing Systems.

Abo-Moussallam guest lectured in CON 476, Sustainable Practices - Design and Construction, as well as a class in the Interior Design program. “As a teaching assistant at Helwan, I have gained valuable experience leading undergraduate discussion sections for both art and design majors,” she said. “My professional experience has provided me with a broad view that is useful in assisting (Continued on page 24)
Department News

Banquet Celebrates Dedication and Commitment to Success

Each year the CM department reserves an evening to thank those responsible for ensuring the continued success of its students. The celebration has evolved over the past two years into a commemoration not only of scholarship donors and the recipients of their philanthropy but also of the dedication of industry members and CSU representatives who have also made a significant impact on the program. At the 2011 Awards Banquet, held on September 15, CM Department Head Mostafa Khattab presented two prestigious CM awards to three entities responsible for continuing the success of the CM program.

Friend of the Department
The CM department is very proud to present the 2011 Friend of the Department Award to Darrell Eastwood, Executive Vice President and COO of Saunders Construction, Inc., current chair of the CM Professional Advisory Development Board (PADB), and alumnus of the CM program. He has been an industry recruiter of CM students for many years and when asked to serve as the chair of the PADB, he says, “I was honored and accepted in the hopes of giving something back to the school that had given so much to me.”

And that is precisely what Eastwood did. The department faced challenges during Eastwood’s tenure as chair, including accreditation renewal, setting an enrollment cap, hiring faculty and placing interns in a shrinking economy. The PADB was instrumental in facing and overcoming these challenges as members collaborated on solutions to help the department, and Eastwood led the charge with unflagging enthusiasm for the cause. “The interdependence between education and industry is clear,” he says. “The construction industry depends on the quality of the education and students produced by the CM department, and the department depends on the industry to recruit and hire their product: the well-trained CM graduates that are future leaders of the industry.”

The Friend of the Department Award recognizes individuals, organizations, or businesses that have demonstrated exceptional leadership and made notable, voluntary contributions in building industry-construction education partnerships which enhance, develop and strengthen the Construction Management program.

Ram Built Hard Hat Award
The 2011 recipients of the Ram Built Hard Hat Award are members of the CSU community who are recognized for their invaluable contributions to construction education. Two awards are being conferred this year, one to April Mason, Provost and Senior Vice President at Kansas State University, and the other to the group of student leaders who pioneered the effort to establish the CM instruction fee.

During her tenure as dean of the College of Applied Human Sciences, Mason was instrumental in raising funds and securing financial support for the CM program. Her efforts helped to ensure the continued success of the program and the education of future leaders in the construction industry.

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CM Student Named 2010 Pacesetter

Jordan Heberlein, CM senior, was named the 2010 Pacesetter during the CSU Homecoming activities in October 2010. CSU’s equivalent to Homecoming royalty, the Pacesetter is a great honor for a student who is also recognized during the Homecoming game and featured during the Homecoming parade.

The Pacesetter award recognizes students who demonstrate a remarkable ability to balance a variety of extra-curricular activities with their academic pursuits. To be considered, students must be a full-time junior or senior with a cumulative GPA of at least 3.25 and have attended CSU for at least 2 years. Pacesetters must also demonstrate and represent an understanding of diversity, character, the importance of education, and what it means to be a CSU Ram.

Heberlein, who was nominated by CM Department Head Mostafa Khattab, maintained her exceptional academic standing while participating in a wide range of extra-curricular activities. She is an active member of the Mechanical Contractors Association of America (MCAA) and Associated General Contractors (AGC) student chapters as well as the CM Student Board of Directors (CMBoD) and Sigma Lambda Chi International Construction Honors Society. She has been a member of ASC competition teams since 2008, including one of the first place finishing teams of 2009.

“It is an honor to be selected to be this year’s Pacesetter,” said Heberlein. “I wouldn’t be considered a Pacesetter if it weren’t for the encouragement and support from my professors, classmates, family and friends.”

Service-Learning Course

and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities. Ozbek, a Service-Learning Scholar at CSU, said, “This course was very successful by many measures. We are particularly proud of our students, two of whom recently won awards for their work in the class.” These students, CM undergraduates Craig Everson and Juli-Anne Canterbury, won high honors for their outstanding performance in the Celebrate Undergraduate Research and Creativity Showcase, 2011, and highest honors in the Service-Learning category.

Clevenger and Ozbek are excited to offer the class again next year and are appreciative of their students for being flexible and adaptable in meeting the inevitable challenges and opportunities of an experimental class. They also look forward to possibly seeing some of the high school students again in the coming semesters. One Centennial student said, “I learned a lot. I’ll be seeing you at CSU’s [CM department] soon!”
Students Finish Strong in Regional and National Competitions

CSU’s CM students have once again proven that they are some of the best in the country. During the 2010-2011 competition season students spent countless hours outside the classroom utilizing the knowledge instilled in them during class to prepare their presentations for the judges. Schools throughout the region and across the country send teams to these events, and the competitive nature of each competition results in the necessity for students to perform at their highest standards to achieve a top finish.

Four Teams Place at RM DBIA
Four teams from the CM department attended the Rocky Mountain Design-Build Institute of America (DBIA) regional competition in September 2010. Out of six possible places in the competition, the CSU teams took first, third, fifth and sixth. The other two places went to teams from CU Boulder and Colorado School of Mines.

The first place team, including Matt Druffel, Alex Brown and Jasen Dill and their coach, interim Endowed Phelps Chair and Assistant Professor Ron Holt, earned a trip to the National Design-Build Conference in Las Vegas, Nev., in October where the students attended design-build presentations with industry and academic professionals and received a certificate of completion for continuing education credit.

NAHB Team Earns Sixth Place at National Competition
Six students from the CM department, Oswaldo Cantor, Matthew Collett, Ryan Feldman, Ryan Mondragon, Bryan Roling and Brandon Schelling, competed against 35 other teams at the National Association of Home Builders (NAHB) Residential Construction Management Competition in Orlando, Fla., January 12-15. The team brought home a sixth place finish, an impressive accomplishment for the students who put their residential construction skills from the classroom to the test in a real-world scenario.

CSU Teams Excel at ASC
Nine teams from CSU attended the 2011 Associated Schools of Construction (ASC) Regions 6 & 7 Student Competitions in Sparks, Nev., February 16-19, including the first electrical team to participate. More than half of the teams returned with placing finishes in their categories, proving once again that they continuously work hard to be the top students in the country.

In the regional categories, CSU teams earned first place in Design-Build, second place in Heavy Civil, and third place in Commercial. Nationally, our teams earned first place in BIM, third place in Mechanical, and the Graduate team received an Honorable Mention. This was the first time the BIM team has placed in the competition, let alone earned the top honor.
MCAA Team Brings Home Second
CSU’s Mechanical Contractors Association of America (MCAA) student chapter team earned a place in the Final Four of the 2010-2011 MCAA Student Competition. They competed at the MCAA National Convention in Maui, Hawaii, March 6-10 and received a second place finish in a three-way tie with the University of Washington and Pittsburgh State University behind Milwaukee School of Engineering. Team member Jordan Heberlein stated that the finish was “not bad for a group of students that only take one HVAC course. We are really making a name within the MCAA as a team to watch and try to beat.”

Team Finishes Strong at ABC Competition
CM faculty coach Mary Nobe took a team of students to the Associated Builders and Contractors (ABC) Construction Management Competition at the ABC EdCon & Expo in San Antonio, Texas, April 11-15. The team returned with a second place finish in the Estimating category and third place overall. The competition centered on the students’ knowledge of estimating, project management and safety. Overall, the CSU teams had another stellar year in the competition arena, and the students are certainly pleased with their achievements and the opportunity to participate. Many believe that they have gained invaluable knowledge from competing. “I feel the knowledge I gained from the work on the project has put me ahead of my peers in school,” said Max Finster, an ABC team member. “I learned about aspects from classes that I have yet to take and how good teamwork plays into the success of a project.”

Awards Banquet Continued from page 16
instrumental in helping the CM program achieve critical goals, including the undergraduate admission control, securing new faculty positions, meeting accreditation requirements, and engaging and supporting the development of the undergraduate professional fee. Her greatest contribution to CM was her drive and commitment to help reaffirm the college commitment to construction education.

Exhibiting similar drive and commitment to construction education are a group of student leaders that took matters into their own hands to improve CM’s ability to provide a state-of-the-art education. These students demonstrated incredible initiative by supporting and petitioning their fellow students for support of a special student fee that would allow the department to invest in better quality instructional materials, faculty trainings and facility upgrades during these budget-strained times. These student leaders proved successful in their drive to implement the fee, and the CM department is proud to honor them for their commitment and determination to improve the program.
On November 15, 2010, the Construction Management Association of America (CMAA) student chapter in CM sponsored an event featuring author, construction lawyer, and U.S. infrastructure “guru” Barry LePatner as their 2010 Distinguished Speaker. Over 300 audience members, consisting of university professors, students, industry, and CMAA Colorado regional members filled the auditorium in Johnson Hall at CSU. Funds and donations obtained from the Associated Students of CSU (ASCSU), Old Chicago, and Mugs made the event possible.

The topic of discussion for the evening was the U.S. economy’s current recession and its direct effect on the construction industry. LePatner identified many different potential issues with current industry standards, construction practices, and business operations. Although the topic has not yet been thoroughly identified in the mass media, according to LePatner, it is just a matter of time. LePatner brought a different perspective on the matter with respect to the vast challenges owners face and solutions contractors can potentially provide to help minimize project cost overruns. His approach, although unconventional, did spark further discussion in the classroom among faculty and students. A direct quote from his presentation sets the tone for his delivery: “When a person with experience meets a person with money, the person with experience will get the money. And the person with the money will get some experience.” - Leonard Lauder (LePatner2010)

The simple statement of this quotation was the ultimate conclusion of LePatner’s findings that tax payers are spending over $120 billion annually due to inefficiencies in the construction industry.

As expected, his overall message was not unanimously accepted by the audience, but it did raise awareness and spark debate among peers within the university. CSU’s CM department is dedicated to facilitating different perspectives in the promotion of higher thinking. CMAA greatly appreciates LePatner’s effort to make the commute from New York City and create a forum for discussion on a topic that CM students, as future leaders of the construction industry, are sure to be presented with in the near future.

LePatner has authored two books, Broken Buildings, Busted Budgets: How to fix America’s Trillion Dollar Construction Industry, and Too Big to Fall: America’s Failing Infrastructure and the Way Forward. He established the New York City-based law firm LePatner & Associates, LLP during his three decades of experience in advisory work on business and legal issues affecting the real estate, design, and construction industry.
New Scholarships Allow Students to Continue Pursuit of Degrees

The development personnel in the College of Applied Human Sciences have been busy assisting generous donors with funding CM students’ dreams. Several new scholarships have been established in the past few months for selected CM students to apply towards the overall cost of pursuing a degree in the program. Every year, the CM department hosts an awards banquet to celebrate all the generous donors and allow them the opportunity to meet the students receiving their awards, and this year’s event featured the following new scholarships among those already established for many years.

Industry Organizations Lend a Hand
Organizations that have served Colorado contractors for decades are committed to seeing the future leaders of their industry succeed, as evidenced by the scholarships privately awarded by these entities. Some have decided to extend this commitment to CSU by establishing scholarship funds specifically for CSU student recipients, particularly those that are involved in their respective student chapters. The Rocky Mountain Chapter of Associated Builders and Contractors (ABC) recently established an endowment to fund a scholarship for CM students planning a career in commercial or industrial contracting. Associated General Contractors (AGC) established the Future Leaders Scholarship funded by the AGC Future Leaders Forum, whose mission is to promote workforce development in the construction industry by providing resources for students and educators. And the Colorado Association of Mechanical and Plumbing Contractors (CAMPC) created a scholarship fund for student members of the Rocky Mountain Chapter of the Mechanical Contractors Association of America (MCAA) interested in careers in the mechanical industry.

Memorial Scholarships Continue Legacies of Esteemed Individuals
There are individuals in the construction industry that make a positive impact in business and in the community, and their families hope to continue the legacy of excellence by contributing to the future success of students in the program. April Keiley established the John Keiley Memorial Scholarship in memory of her husband, John, who owned a successful business in the homebuilding industry and was known as a “MacGyver” who could fix anything. The recipient will be a student interested in residential construction and who also has a talent for using creative materials or approaches to solve problems.

Meg Ricke, in conjunction with Jacobs Engineering Group, recently endowed a scholarship in memory of her husband, Gerald “Rick” Ricke. Ricke worked over 50 years in the construction industry, beginning as a carpenter during his teen years and advancing to become a General Superintendent/Project Manager. He was a true mentor and motivator and cared about all who wanted to learn the “old school” methods of construction. Many who worked with him say they owe their successful careers to his leadership and support, so the hope of the donors is to continue this legacy by supporting CM students with the same leadership and passion.

Giving Back to the Program that Supported Them
Students in the CM program often move on to achieve great success in the construction industry, and

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Industry Crucial In CM’s Future

“\(t\)akes a team to succeed.” This has been CM Department Head Mostafa Khattab’s mantra throughout his tenure as leader of CM as he strives to build the best team of faculty and industry to ensure the success of the program. CM celebrates a unique experience for students that pairs hands-on learning with access to the industry. Khattab spends significant time with the industry to make sure the curriculum built at CSU mirrors the industry’s needs and continues to produce qualified graduates. “We have a tradition of delivering industry-ready graduates who have real-world experiences and the skills to make an immediate and lasting impact,” explains Khattab. “It’s my job to make sure our program continues to meet the industry’s expectations.”

Khattab, who accepted the role as department head in 2007, says that the department’s graduates are highly recruited. Every student is required to participate in an internship prior to graduation, and some students complete more than one during their careers at CSU. The industry remains supportive of the department through these internships and involves itself in advisory roles and gifts to support scholarships and student competitions. In an effort to say thank you and continue building partnerships, Khattab often travels to visit alumni, donors, and industry members around the country.

In July, he traveled to California to visit with Beavers Trust, DPR Construction, Har-Bro and Webcor, as well as Bill Phelps, President of Joseph Phelps Vineyards. Visiting with alumni is also an important part of Khattab’s travels, and on this trip he caught up with Clyde Trego, ’88, VP of West Coast Development for DCK Worldwide, LLC, and William Duff, ’94, owner of William Duff Architects. The goal of these trips is to consult with the industry on upcoming needs or changes, which may alter the design of the curriculum. He also hopes to personally share the department’s vision for the future and obtain ideas for new opportunities to continue the program’s advancement as one of the best in the nation.

“We have accomplished tremendous goals in these last five years including the renovation of our Preconstruction Center, the establishment of a Heavy Civil Endowed Chair, and growing our Road to Excellence Fund for faculty and staff development,” Khattab continues. “But these next five years will prove critical as the industry is seeing many changes. Working with our partners to discuss these changes allows us to update our curriculum to ensure that we are truly serving the industry.”

CM Cares Program

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semester, but not before lending valuable insight into the project’s design. The project was re-named the John Ray Memorial Greenhouse and is currently being re-worked for production on the CSU campus before it is moved and set on site at Bennett Elementary.
Save Our Youth (SOY)
The SOY Mentoring Project in Denver required help with the demolition of a wall dividing offices from an open area in the lower level of their corporate offices. There was also need for new partition walls, interior windows, minor electrical work, and help with permits, plans and specifications. Students raised more than $1,400 in monetary donations from Saunders Construction, A and A, Pawnee Station Restaurant, Frank and Lane, Albert and Karen Kester, Pat Woods, Dennis Kugler, Rich Harms, Rick Harvey, Susie Kester, Joyce Woods and April Reis, and materials donations from Mawson Lumber. “It is challenging for non-profit organizations to get things done these days and we want to thank these students for helping us,” said SOY employee Trudy Swain. “They have boosted our employee morale by coming in and accomplishing what they have. We are very appreciative.”

Noah’s Project
Noah is a young boy with Spinal Muscular Atrophy (SMA) who lives with his family in Fort Collins. A group of CM Cares students is working on building him a bedroom, handicapped accessible bathroom, and caregiver bed area addition onto the first floor of his family’s home. The project involves a site survey, planning, design, permits, utility locates and HOA approval in addition to the actual construction. The students raised more than $2,100 for the project from donut sales fundraisers, and over thirty companies and individuals have contributed funds, labor and materials to the project. CM Cares has also secured the support of Mortenson Construction as the general contractor to work on the project during summer, donating materials and labor to the effort. “The value of this project has been life changing for our whole family,” said Khristy Preston, Noah’s mother. Noah’s Project is still underway and will continue work through fall 2011.

Every project undertaken by CM Cares has one aspect in common: the students are driven to make the program succeed. “We created a vision in the department for CM Cares, but we also needed a champion,” said CM department head Mostafa Khattab. “We needed the students’ motivation to make it happen.”

All of these projects commit to the goal of CM Cares to team CM students, faculty and industry members with local agencies or individuals in need of construction services to improve the quality of life in their communities. As the program continues to expand, the CM department will also consider international service learning opportunities in which students can actively participate. In the meantime, local community service agencies can rely on the CM Cares team as a one-stop shop to meet their construction-related service needs.

The CM student leaders that spearheaded Noah’s Project in the CM Leadership Course with project beneficiary Noah Essa (L-R): Kyle Rader, Jordan Heberlein, Kyle Ziegler, Maggie Smith, Mike Utter.
New Scholarships

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there are those that feel they would not be as successful if it hadn’t been for the program’s excellence and the university’s support. To fully express their gratitude, these individuals set up scholarships for current students to realize their own successes. Terrance Unrein, Brady Babbitt, and Jeb Bair, all 2010 graduates of the CM program, were heavily involved in leadership activities of the CM department, the college, and the University. The value of these experiences as students led to the decision to create the CM Board of Directors Student Leadership Scholarship to recognize students that participate in leadership activities while balancing other school commitments. In the same way, Beau Bronken and Joe Houtz, 2011 graduates, established the Heavy Civil Alumni Scholarship for students interested in pursuing a career in the heavy civil industry.

In Greg Kushner’s case, he credits the support system at CSU and the environment in the CM program with making him the success he is today. He and his mother, Stephanie, have established a scholarship to support CM students as a way to give back to the institution that guided Kushner on his road to excellence. “It took Greg a while to find himself,” said Kushner’s mother, “but at the end of the day he grew up and found his way, and he’s very happy. CSU gets the credit for that.”

Fulbright Scholar

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students with projects, and my academic research work has provided me the opportunity to draw connections between design theoretical concepts and future applications as an interdisciplinary approach.”

The Fulbright Specialist

Program, established in 1946, honors top scientists and promising young professionals by providing research opportunities and the ability to share knowledge while also serving a broader public interest and increasing a mutual understanding among nations.

GH Phipps Spruces Up Student Lounge

While students were absent from campus over the summer, GH Phipps applied paint and vinyl images to the walls and brought in comfortable furniture to create a more inviting atmosphere in the student lounge area of the Preconstruction Center. The company has been the sponsor of the study area since the Preconstruction Center opened in the fall of 2009.

2010-2011 CM Degrees

Fall 2010

- 99 undergraduate degrees conferred (6 cum laude, 2 magna cum laude)
- 2 undergraduate minors conferred
- 6 graduate degrees conferred

Spring 2011

- 104 undergraduate degrees conferred (5 cum laude, 6 magna cum laude, 1 summa cum laude)
- 14 undergraduate minors conferred
- 10 graduate degrees conferred

Summer 2011

- 7 undergraduate degrees conferred
- 2 undergraduate minors conferred
- 6 graduate degrees conferred