Developing Engineers and the Value of Credentialing

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Moderator: Maj. Gen. Timothy Byers, F.SAME, USAF (Ret.), Senior Vice President, Defense Sector, Atkins

Speakers:

• Lt. Col. Neal Wright, P.E., PMP, F.SAME, USA (Ret.), Vice President, Dewberry
• William Hasbrook Jr., DBIA, MEMS, Executive Vice President and Managing Director, OHL Texas
• J. Zachary Bedford, President, MacDonald-Bedford LLC
• Laureen Borochaner, P.E., Chief of Engineering, USACE Jacksonville District
• Vice Adm. Michael Loose, P.E., F.SAME, USN (Ret.), Senior Vice President, Parsons
SAME Warrior Transition Task Force
Neal T. Wright, PE, PMP, F. SAME LTC, US Army (ret.)
Vernie Reichling, COL, US Army (ret.)

Credentialing Panel Discussion
May 22, 2014
MISSION of the WTTF

The directed Mission of the SAME Warrior Transition Task Force is as follows:

- Investigate the opportunities for SAME to contribute to the credentialing of military engineers while they are in uniform so that they have better opportunities for employment after leaving military service.

- The credentialing should address the needs of both enlisted and officer personnel, although the emphasis may be focused on the enlisted force.

- The Task Force should also investigate how SAME continuing education programs, can help in the process.
WTTF Team Charter

We adopted a three-prong approach:

- Research to Cross Walk Military Engineering specialty codes/ratings to industry recognized Certification Programs.
- Meet with the Three Service “School Houses” to compare credential requirements. Conduct a GAP analysis to identify training shortfalls and recommend education options to bridge the deficiencies.
- Conduct a “Beta Test” of the process and requirements to credential a cadre of volunteer Soldiers, Sailors and Airmen through the NICET process.
Appropriate Credentials

Most appropriate for our engineer Enlisted, NCO and Officer Ranks to obtain at reasonable cost and level of effort:

- NICET certified Technician and Technologist Certifications
- PMI Certified Project Management Professional (PMP) and Certified Assistant in Project Management (CAPM)
- IFMA certified Facilities Management Professional (FMP), Sustainable Facilities Professional (SFP) and Certified Facility Manager (CFM)
- AFE Certified Plant Engineer, Certified Plant Maintenance Manager and Certified Plant Supervisor
- DBIA certified Associate DBIA
- CMAA Certified Construction Manager (CCM)
- IHMM Certified Hazardous Materials Manager (CHMM), Certified Hazardous Materials Practitioner (CHMP) and the Hazardous Materials Managers in-Training (HMMT)
- Certified UXO Technician
- United Associations Veterans in Piping Apprenticeship (UAVIP)
NICET Assistance

“NICET stands ready to conduct another workshop for the US Navy whenever they are ready. We recently got some interest from a US Navy group (Public Works Department Sigonella, Italy) regarding the NICET Water and Sewer Lines certification. We are not yet sure that we can/will be conducting tests in Italy, but that is a possibility if we can get it set up. I will keep you posted on that as it unfolds.”

“We are also prepared to review the various curriculum and work with the schoolhouses to confirm that the training being offered fits into the NICET Certification structure. Again, we are ready to go with that review whenever someone is available to help walk us through things.”
Task Force Phase Two Activities

- Complete Remaining Actions from the Warrior Transition Task Force action plan. NEW Co-Chair COL(ret) V. Reichling. Complete all by JETC 2015.
- Revise Credentials Cross Walk and Complete the Curriculum Gap Analysis
- Conduct External Coordination and Outreach with organizations and elected leaders- DOD, American Legion and US Senator Kaine (D-VA)
- Establish “how to “ guidelines for engineer service members seeking certification and SOP for SAME Post Support of credentialing programs
- Work with HQ SAME; review identified training gaps and craft SAME Continuing Education course offerings to bridge the requirements.
- Build a Credential Assistance Portal on the SAME website. Place the credential crosswalk and certification guidelines on the SAME website.
- Work to support the credentialing initiatives of the US Army Engineer School. Assist USAF and USN as appropriate.
How can we engage SAME Posts?

- Reach out to Engineer Troops at nearby installations.
- Posts host Job Fairs and Resume Workshops.
- Publicize Credentials for our Industry.
- Publicize all available SAME Credential Support Programs.
- Sponsor Certification Workshops with Webinars from Credentialing Bodies.
- Provide Scholarships to Assist NCO/Junior Offices to Obtain Certifications.
- Mentor our NCOs and Junior Officers about our industry.
Design-Build Institute of America
Design-Build Professional™ (DBIA™)

William G. Hasbrook, Jr., DBIA, MEMS
2014 Certification Board Chair
Background

• Worked in many areas, industries, and delivery methods
• Military background
• SAME member since 1997
• DBIA member since 1993
• I too had questions
What is a Certification?

• A formal process
• Proof of certification
  – Formal classes / education
  – Documented years of proven experience
  – References
  – Test
• The holder is a competent professional
Examples of Being “In Demand”

• See both requirements and preferences from the public and private sector

• Public
  – Liberty, MO
  – Virginia Beach, VA
  – Bureau of Indian Affairs
  – J. F. Tuttle Middle School

• Private
  – Sharp Healthcare
  – Hamilton Southeastern School, Corp.
DBIA Neutral Focus

• Specific focus
  – AIA – Architects
  – AGC – Contractors
  – Etc.

• DBIA
  – Owners
  – Designers
  – Contractors
Discriminator for a Company

• Quals and proposals:
  – Used to only worry about price, not getting qualified
  – No longer “who” is qualified, but instead concerns with giving a reason NOT to qualify
  – Never know what will tip the scale
  – If only DBIA credential, it could be a discriminator

• Agency – staffed by certified, dedicated professionals
What’s in it for You?

• Committed to your profession
• Perception of your abilities
• Added value
  – Advancement
  – Competition
  – Compensation
• Benefits outweigh the costs
Bottom Line

• A sign of professionalism and dedication
• Ordinary evolution in career
• Discriminator
  – For your resume
  – For your company, agency, and/or team’s resume
• Sets you apart
• Portable to all places you work
Project and Construction Management Credentials

J. Zachary Bedford
MacDonald-Bedford LLC
About MacDonald-Bedford

MacDonald-Bedford LLC (M-B) is a professional architectural, engineering, environmental and construction (AEC) management consulting firm

- Strong PM/CM Portfolio
- Special expertise in FPE, CxA and VE

M-B is a Registered Educational Provider (R.E.P.) with the Project Management Institute (PMI®)) and provides training within chapters of the Construction Management Association of America (CMAA).
Emphasized Credentials

• Over 580K Project Management Professionals (PMP®) worldwide
• Over 24K Certified Associates in Project Management (CAPM®)
• Over 2K Certified Construction Managers (CCM)

As of Oct 2013
Who Values Credentials?

- Recruiters
- Promotion Selection Committees
- Buyers of Project Management Services
- Authorities Having Jurisdiction
- Courts – Expert Witness Requirements
Value of Obtaining Credentials

- Credentials allow transitioning members of the military to pursue more selective positions
- PMP® credential holders earn higher salaries
- Many within “civilian life” are former military... they value credentials + military experience
- Credentials validate the technical and management knowledge v. experience
- Opens doors to professional networks
- Advances professional development
About PMI

- Project Management Institute is the world's leading not-for-profit professional membership association for the project, program and portfolio management profession.
- Founded in 1969 at Georgia Tech
- 435K members in 270 chartered chapters across 193 countries worldwide (192 states in the UN)
- Volunteers create the standards, e.g. *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) —Fifth Edition*
- Affiliated with ANSI, ISO etc. (ISO/TC258 Project, Program, and Portfolio Management)
PMI Certifications

- Certified Associate in Project Management (CAPM®)
- Project Management Professional (PMP®)
- Program Management Professional (PgMP®)
- Portfolio Management Professional (PfMP℠)
- PMI Agile Certified Practitioner (PMI-ACP®)
- PMI Risk Management Professional (PMI-RMP®)
- PMI Scheduling Professional (PMI-SP®)
- OPM3® Professional Certification
PMI Advantages

• Advance careers
• Work within global standards and lexicon (over 3.5 M *PMBOK® Guides* sold
• Collaborate with Communities of Practice e.g. The construction industry, government, aerospace and defense
• Participate in Online Global Communities
• Network with Professionals
• Acquire knowledge: Tried and true best practices to cutting edge thinking, proposed methodologies
DOD-Federal Emphasis on PM

- DAU and PMI MOU

- The PMBOK and DoD project management have been linked since 1985.
  - The USA Corps of Engineers bases its Project Management Business Process (PMBP) on the *PMBOK® Guide*
  - The Army’s Engineer School, at Fort Leonard Wood, initiated inquiries to offer PMI training following the captain’s course.
  - USACE encourages its civilian project managers to obtain PM credentials

- GAO requires earned value management (EVM)
PMP Exam Basics

- College degree plus 4,500 hours of PM experience
- 35 hours of contact training in PM
- Computer-based exam with 200 questions; 107 of 175 correct answers required to pass
- Test of competency: questions on knowledge and ability to solve problems
- Ethics Oath
CMAA, formed in 1982, is North America’s only organization dedicated exclusively to the interests of professional Construction and Program Management.

- Current membership is more than 11,000
- CMAA has 28 regional chapters and 50 student chapters at colleges and universities nationwide.
- Active in career promotion, research, and scholarships.
- Maintains close ties with ‘sister’ CM organizations in other countries, e.g. South Korea
Certified Construction Manager

- Only CM certification accredited by the American National Standards Institute (ANSI) under the ISO 17024 standard.
- Employing CCMs lowers liability insurance costs
- Maintains Standards of Ethics
- Endorsed by owners, academia, practitioners and other construction related associations and organizations (e.g. CII)
Owners Requesting CCMs

✓ County of San Diego
✓ Department of Homeland Security
✓ Los Angeles Unified Schools
✓ Massachusetts Port Authority
✓ Metro Washington Airport Authority
✓ NYC Dept. Environmental Protection
✓ NYC Transit Authority
✓ Oklahoma Department of Central Services

✓ San Francisco Public Utilities Commission
✓ Smithsonian Institution
✓ University of Texas
✓ US Army Corps of Engineers
✓ US Dept. Veteran Affairs
✓ US General Services Administration
✓ Virginia Dept. of Transportation
✓ Washington Metro Area Transit Authority
Testimony: VDOT

“CCM is helping us to improve the competencies of our construction managers, and helping us improve project delivery. Earning the CCM is an achievement that gives our construction managers a deep sense of personal satisfaction. We’re achieving positive results on projects every day.”

Mark Cacamis, CCM, PE
State Construction Engineer
Virginia Department of Transportation
Testimony: Architect of U.S. Capitol

“CCMs reduce our risk on construction projects and reducing risk is what makes us successful. By reducing cost and reducing time on projects, we find we are far more successful with CCMs leading our effort.”

Stephen T. Ayers, FAIA, LEED AP
Architect of the U.S. Capitol
Testimony: SF PUC

“The CCM certification gives us the confidence that the individuals assigned to our projects are highly qualified to tackle the construction challenges that arise in the field every day. It is a benchmark that is becoming highly recognized in the construction industry to help ensure high standards of practice.”

Julie Labonte, Director
Water System Improvement Program
San Francisco Public Utilities Commission
GSA Language for CCMs

SECTION B - SUPPLIES OR SERVICES AND PRICES/ COSTS


(c) GSA intends to use the “Construction Management Standards of Practice” issued by the Construction Management Association of America (CMAA) in developing task order scopes of work. GSA also intends to use CMAA publications ...in developing the task order scopes of work.

(d) CM firms are encouraged to provide staff certified as construction managers by the Construction Manager Certification Institute sponsored by the CMAA.
CCM Requirements

• 48 months experience as a CM in a qualifying area
• ONE OF THE FOLLOWING (in addition to 48 months of experience):
  – An undergraduate (4-year BA/BS level) or graduate qualifying degree.
  – A 2-year undergraduate qualifying degree (AA/AS level) AND 4 years experience in general design/construction.
  – No degree in construction management, architecture, engineering or construction science AND 8 years experience in general design/construction.
• Provide a minimum of 2 references to contact via email.
• Pass the 5-hour exam.
SUMMARY

• Validate knowledge and experience
• Develop an industry lexicon
• Garner widespread recognition
• Obtain better jobs, better salaries
• Network...learn from others
• Gain professional development
• Promote ethical standards
Thank You
DEVELOPING ENGINEERS AND THE VALUE OF CREDENTIALING

Laureen A. Borochaner, P.E.
Chief, Engineering Division
USACE Jacksonville District
22 May 2014
Why are credentials important?

- Indication of the professional responsibility and technical competence of the organization.
- Required as a condition of employment for positions making authoritative engineering, architectural, construction and/or operations determinations:
  - Dam and Levee Safety Officers and Program Managers
  - Chiefs of Engineering and Construction Divisions and Branches
  - Chiefs of Technical Design Sections
  - Regional Technical Experts and Senior Design Engineers,
  - Area and Resident Construction Engineers,
- Chairs of AE pre-selection and selection boards.
- Appropriate as a selection factor for appointment for these positions of responsibility.
What types of credentials are important?

- **Most common:**
  - Professional Engineer (P.E.)
  - Registered Architect (R.A.)
  - Registered Geologist (R.G.)

- **Specialized certifications:**
  - Professional Surveyor and Mapper (PSM)
  - Certified Value Specialist (CVS)
  - Certified Cost Professional (CCP)
  - Construction Certifications for staff and contractors
Policy and guidance for Engineers & Scientists as well as USACE team members, Architect-Engineer (A-E) contractor firms and Design Build contractor firms.

Registration required for non-federal engineers by states to safeguard life, health and property, and public welfare.

USACE does not require registration in any particular state.

USACE team members will sign and indicate professional registration on design documents, permit applications, and certifications.

A-E contractors will sign and stamp or seal design documents, permit applications, or certifications as provided under their contracts.
AE Selection Boards

- Required for positions that chair AE pre-selection and selection boards.
- Important for firms bidding contracts.
- Qualified staff with specialized experience and knowledge to perform the work within the required time.
- Key personnel resumes are provided that indicate education and training, role to be filled, and relevant experience.
- Key personnel generally required to be professionally licensed and one key staff member to maintain a professional license in the applicable state.
How does USACE support registration?

- Encourage to start their careers in positions where they can develop skills.
- Mentoring and oversight of work of junior staff by senior level staff.
- Technical training.
- Reimburse fees including training, exam and travel.
- Cash awards.
- Renewal fees and continuing education training required to maintain a license.