(If a firm has branch offices, complete for each specific branch office seeking work.)

1. REVISED ADSPO13-00003465*: Annual Request for Qualifications*

a. FIRM (OR BRANCH OFFICE) NAME:	**Affiliated Engineers, Inc.**
b. FIRM (OR BRANCH OFFICE) STREET:	**4742 N 24th Street, Suite 100**
c. FIRM (OR BRANCH OFFICE) CITY:	**Phoenix**
d. FIRM (OR BRANCH OFFICE) STATE:	**Arizona**
e. FIRM (OR BRANCH OFFICE) ZIP CODE:	**85016**
f. YEAR ESTABLISHED:	**2007**

(g1). OWNERSHIP - TYPE:	**Corporation**
(g2) OWNERSHIP - SMALL BUSINESS STATUS:	**N/A**

h. POINT OF CONTACT NAME AND TITLE:	**Steven Yanke**
i. POINT OF CONTACT TELEPHONE NUMBER:	**602-429-5800**
j. POINT OF CONTACT E-MAIL ADDRESS:	**syanke@aeieng.com**
k. NAME OF FIRM *(If block 1a is a branch office)*:	**Affiliated Engineers, Inc.**

2. EMPLOYEES BY DISCIPLINE

a. Discipline Title	b. Function: Primary (P) or Secondary (S)	c. No. of Employees - Firm	d. No. of Employees - Branch
Administrative	P	**85**	**3**
CADD Technicians	P	**25**	**2**
Estimators	P	**4**	
Electrical Engineer	P	**72**	**4**
Mechanical Engineers	P	**154**	**7**
Sanitary Engineers	P	**19**	**3**
Fire Protection Engineers/Designers	S	**2**	**1**
Instrumentation & Controls Engineers/Designers	P	**16**	
Information Technology Engineers/Designers	P	**13**	
Lighting Engineers/Designers	P	**6**	
Mechanical Designers		**59**	**3**
Electrical Designers		**34**	**3**
Sanitary Designers		**23**	**2**
Commissioning/Field Services	S	**35**	**1**
Chemical Engineers		**1**	
Total		**548**	**29**

3. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST YEAR

a. Approximate No. of Projects	b. Experience	c. Revenue Index Number *(see below)*
	Airports; Airport Lighting	**2**
	Automation, Controls, Instrumentation	**2**
	Community Facilities	**2**
	Educational Facilities; Classrooms	**4**
	Electrical Studies and Design	**4**
	Hospital & Medical Facilities	**5**
	Heating, Ventilation, Air Conditioning	**2**
	Laboratories; Medical Research Facilities	**4**
	Labs – General	**1**
	Labs – Research	**3**
	Labs – Wet	**3**
	LEED Accredited A/E	**3**
	Plumbing and Piping	**3**
	Research Facilities	**4**

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

4. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT (*Complete one Section 4 for each key person.*)

a. NAME	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
Jason Clausen	**Electrical Engineer**	1. TOTAL **11**	2. WITH CURRENT FIRM **2**

d. FIRM NAME AND LOCATION *(City and State)* **Affiliated Engineers, Inc. Phoenix, Arizona**

e. EDUCATION *(DEGREE AND SPECIALIZATION)*
Bachelor of Science / Electrical Engineering

CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Registered Professional Engineer Arizona 52023 / Electrical

g. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
Construction Documents Technologist

H. RELEVANT PROJECTS

1)

(1) TITLE AND LOCATION *(City and State)*
Arizona State University Hayden Library Learning Labs – Tempe, AZ

(2) Year Completed - **2013**

Professional Services
Mechanical, Electrical, Plumbing, Fire Protection

Construction *(if applicable)* **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Electrical Engineer for the renovation of this 22,500 sf to add (2) 150-person learning labs and collaboration space. Includes new Air Handling Unit and fi re sprinkler revisions.

2)

(1) TITLE AND LOCATION *(City and State)*
Hospice of the Valley Sherman Home Expansion – Scottsdale, AZ

(2) Year Completed - **2013**

Professional Services\
Mechanical, Electrical, Plumbing

Construction *(if applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Electrical Engineer for MEP design services for this 13,500 sf addition to the hospice facility located on Mayo Clinic of Arizona's Scottsdale, Arizona campus. The project includes new utility electrical service and the client has requested that the pursuit of green building technologies be included in the building design. The project has been designed but construction has not commenced.

3)

(1) TITLE AND LOCATION *(City and State)*
James Walsh Historic Courthouse Phase II Renovation – Tucson, AZ

(2) Year Completed – **2009**

Professional Services
Mechanical, Electrical, Plumbing

Construction *(if applicable)* **2010**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Electrical Engineer for the 25,000 sf Walsh Courthouse Phase 2 historic restoration, which included exterior perimeter security improvements, and the addition of a biohazardous mailroom.

4)

(1) TITLE AND LOCATION *(City and State)*
Northern Arizona University Health and Learning Center – Flagstaff, AZ

(2) Year Completed – **2010**

Professional Services
Mechanical, Electrical, Plumbing

Construction *(if applicable)* **2011**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Planning and design services for LEED© Gold, 264,000 sf health and learning facility with athletics, recreation, student health and wellness, counseling and disability resources, two floors of learning labs, and renovation to existing recreation center.

5)

(1) TITLE AND LOCATION *(City and State)*
Arizona State University – Cornerstone Arts Center, Tempe, Arizona

(2) Year Completed – **2007**

Professional Services
Mechanical, Electrical, Plumbing

Construction *(if applicable)* **2008**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Electrical Engineer for the remodel of the 20,000 sf arts center remodel including black box theaters and performing arts education facilities.

a. NAME	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
Paul Hurt	**Electrical Engineer**	3. TOTAL **8**	4. WITH CURRENT FIRM **<1**

d. FIRM NAME AND LOCATION *(City and State)* **Affiliated Engineers, Inc. Phoenix, Arizona**

e. EDUCATION *(DEGREE AND SPECIALIZATION)*
Bachelor of Science / Electrical Engineering

CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Registered Professional Engineer Arizona 54768 / Electrical

g. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

H. RELEVANT PROJECTS

1)

(1) TITLE AND LOCATION *(City and State)*
Paradise Valley Community College Kranitz Student Center Renovation – Phoenix, , AZ

(2) Year Completed – **2010**

Professional Services
Mechanical, Electrical, Plumbing, Fire Protection

Construction *(if applicable)* **2012**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Electrical Engineer for the renovation of the existing two story, 48,000 sf Kranitz Student Center (KSC) and addition of a new 4,000 sf multi-purpose community meeting room and 3,600 sf of new office space. The scope of work also includes the upgrade of existing building infrastructure and mechanical systems to meet the demands of the increased space.

2)

(1) TITLE AND LOCATION *(City and State)*
Mayo Clinic Phoenix Campus Advancement Project Building Site Lighting - Phoenix, AZ.

(2) Year Completed - **2013**

Professional Services\
Mechanical, Electrical, Plumbing

Construction (*if applicable)* **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Electrical Engineer for the installation of site lighting, emergency call boxes and surveillance cameras for additional parking lots serving the 625,000 sf PCAP Building.

3)

(1) TITLE AND LOCATION *(City and State)*
Central Arizona College Phase I Master Plan – Maricopa, AZ

(2) Year Completed – **2011**

Professional Services
Mechanical, Electrical, Plumbing

Construction *(if applicable)* **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Electrical Engineer for the initial phase of this campus master plan, which will be approximately 77,000 sf comprised of a student services building, learning center, instructional building and central plant. The new campus will cater to the needs of the surrounding community and feature a culinary arts program, bookstore, teaching laboratories and community room.

4)

(1) TITLE AND LOCATION *(City and State)*
ASU University Center – Phoenix, Arizona

(2) Year Completed - **2010**

Professional Services
Mechanical, Electrical, Plumbing

Construction *(if applicable)* **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Electrical Engineer for the renovation of high-rise offices to teaching labs, along with administrative suites of various sizes; included Phase II HVAC upgrades. Multi-phased projects which also included NHI2-Nursing Health Innovation 5th floor tenant improvement and the Deans and executive offices, which was approximately 10,000 sf.

5)

(1) TITLE AND LOCATION *(City and State)*
Nassif Associates – Constitution Center (formerly David Nassif Building) – Washington, DC

(2) Year Completed – **2006**

Professional Services
Mechanical, Electrical, Plumbing

Construction *(if applicable)*
2009

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Electrical Engineer for the renovation a 1.2 million sf office center; the largest privately-owned office building in the District of Columbia. Scope of work included an initial site survey and various design and drafting tasks.

a. NAME	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
Zach Goldsworthy	**Electrical Engineer**	5. TOTAL **6**	6. WITH CURRENT FIRM 4

d. FIRM NAME AND LOCATION *(City and State)* **Affiliated Engineers, Inc. Phoenix, Arizona**

e. EDUCATION *(DEGREE AND SPECIALIZATION)*
Bachelor of Science / Electrical Engineering

CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

g. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

H. RELEVANT PROJECTS

1)

(1) TITLE AND LOCATION *(City and State)*
Phoenix Sky Harbor International Airport – T3 Parking Garage Lighting Upgrades – Phoenix, AZ

2) Year Completed – **2012**

Professional Services
Electrical

Construction *(if applicable)* **2012**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Electrical Designer for the design of a new LED lighting system for the 1M sf T3 Parking Garage, with the goal of attaining the most suitable levels of illumination while taking safety and energy conservation measures into primary consideration. A new electrical service was provided to separate the lighting from the remainder of the electrical loads, allowing PSHIA to receive a more favorable lighting-only utility rate.

2)

(1) TITLE AND LOCATION *(City and State)*
City of Phoenix – Marcos De Niza MEP Upgrades – Phoenix, AZ

(2) Year Completed - **2009**

Professional Services\
Mechanical, Electrical, Plumbing

Construction *(if applicable)* **2010**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Electrical Designer to rehabilitate 374 housing units to create a healthy, safe living environment for Marcos De Niza residents. Scope includes a new underground electrical distribution, new interior and exterior lighting, and a 45kW photovoltaic system.

3)

(1) TITLE AND LOCATION *(City and State)*
St Joseph's Hospital & Medical Center – Data Closet Upgrades Phoenix, AZ

(2) Year Completed – **2011**

Professional Services
Mechanical, Electrical, Plumbing

Construction *(if applicable)* **2012**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

One of the Electrical Designers responsible for installing new power receptacles and evaluating cooling upgrades for selected IT closets. AEI provided electrical power and HVAC upgrades for new telecommunications equipment in select IT closets and 96 patient rooms (totaling approximately 11,000 sf) across this campus and fully operational medical facility, all on an accelerated 5-phase project schedule.

4)

(1) TITLE AND LOCATION *(City and State)*
Scottsdale Healthcare – Shea Medical Center OR Renovation and PACU – Scottsdale, AZ

(2) Year Completed - **2010**

Professional Services
Mechanical, Electrical

Construction *(if applicable)* **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Electrical Designer for 26,284 sf new, three-story addition in the north courtyard, the construction of a new, 55-bed Pre-Op/PACU Unit and the construction of three new ORs (one hybrid and two general/orthopedic).

5)

(1) TITLE AND LOCATION *(City and State)*
Banner Thunderbird Medical Center – Electrical Service Upgrades Glendale, AZ

(2) Year Completed – **2013**

Professional Services **Electrical**

Construction *(if applicable)* **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Electrical Designer for the replacement of existing electrical equipment. Project included providing an electrical coordination study for the new equipment, and an updated arc flash study.

a. NAME	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
Sam Crum	**Mechanical Engineer**	7. TOTAL **12**	8. WITH CURRENT FIRM **3**

d. FIRM NAME AND LOCATION *(City and State)* **Affiliated Engineers, Inc. Phoenix, Arizona**

e. EDUCATION *(DEGREE AND SPECIALIZATION)*
Bachelor of Science/Mechanical Engineering

CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Registered Professional Engineer Arizona 53232 Mechanical

g. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)* **ASHRAE, HFDP, ASHE**

H. RELEVANT PROJECTS

1)

(1) TITLE AND LOCATION *(City and State)*
Scottsdale Healthcare – Operating Room (OR)Renovation and Perianesthesia – Scottsdale, AZ

2) Year Completed – **2011**

Professional Services **Mechanical, Electrical, Plumbing**

Construction *(if applicable)* **2012**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Mechanical Engineer for 26,284 sf new, three-story addition in the north courtyard, the construction of a new, 55-bed PreOp/PACU (Perianesthesia) Unit and the construction of three new ORs (one hybrid and two general/orthopedic) while keeping the department and hospital fully functional. Project includes a new chiller and air handler.

2)

(1) TITLE AND LOCATION *(City and State)*
Arizona State University – Tempe Student Recreation Facility – Tempe, AZ

(2) Year Completed - **2013**

Professional Services\ **Mechanical, Electrical, Plumbing**

Construction *(if applicable)* **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Mechanical Engineer for an 84,500 sf expansion to the existing Student Recreation Facility. Program elements included a 1st floor 2-court gym, a 2nd floor 3-court gym, strength and cardio equipment rooms, a weight-training facility, wellness center, reception area and student engagement space. The project is pursuing a minimum of LEED© Silver certification.

3)

(1) TITLE AND LOCATION *(City and State)*
City of Phoenix – Public Library HVAC Upgrade Study – Phoenix, AZ

(2) Year Completed – **2012**

Professional Services **Mechanical, Electrical, Plumbing**

Construction *(if applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager/Mechanical Engineer for this HVAC load study and HVAC upgrade report to three existing City of Phoenix public libraries.

4)

(1) TITLE AND LOCATION *(City and State)*
University of Arizona – BioScience Research Laboratories Tucson, AZ

(2) Year Completed - **2012**

Professional Services **Mechanical, Electrical**

Construction *(if applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Mechanical Engineer for this 150,000 sf cutting-edge research laboratory currently in the design stage on the University of Arizona Tucson Campus. This facility will house offices, support space, conference rooms and specialized core facilities, including clinical research space. The project is being designed/constructed to minimum LEED© Silver requirements and is still under the design phase.

5)

(1) TITLE AND LOCATION *(City and State)*
Banner Good Samaritan Medical Center – Operating Room Expansion Phoenix, AZ

(2) Year Completed – **2009**

Professional Services **Electrical**

Construction *(if applicable)* **2010**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Mechanical Designer for this 70,000 sf renovation, 80,000 sf, two-story addition, and the fi t-out of existing basement shell space. The project created 20 new ORs and increased Pre-Op/PACU bays from 38 to 61 each; also, as part of the renovation, a new Sterile Processing Department was constructed, and the project included significant infrastructure upgrades.

a. NAME	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
Jeremy Barrette	**Mechanical Engineer**	9. TOTAL **15**	10. WITH CURRENT FIRM **3**

d. FIRM NAME AND LOCATION *(City and State)* **Affiliated Engineers, Inc. Phoenix, Arizona**

e. EDUCATION *(DEGREE AND SPECIALIZATION)*
Bachelor of Science/Mechanical Engineering

CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Registered Professional Engineer Arizona 52320 Mechanical

g. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)* **ASHE**

H. RELEVANT PROJECTS

1)

(1) TITLE AND LOCATION *(City and State)*
Arizona State University – Hayden Library Learning Labs – Tempe, AZ

2) Year Completed – **2013**

Professional Services
Mechanical, Electrical, Plumbing, Fire Alarm

Construction *(if applicable)* **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager and Mechanical Engineer for this renovation of 22,500 sf to add (2) new 75-person learning labs and (1) 150-person learning lab with dozens of computer docking stations. Project scope included the addition of a new air handling system, fire sprinkler revisions and a new interior mechanical space. AEI also designed a raised floor to locate electrical and data outlets throughout the lab space, so that furniture can be freely arranged to meet the changing needs of the various departments utilizing the space.

2)

(1) TITLE AND LOCATION *(City and State)*
University of Arizona – Old Main Building Rehabilitation – Tucson, AZ

(2) Year Completed - **2012**

Professional Services\
Mechanical, Electrical, Plumbing

Construction *(if applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager and Mechanical Engineer for MEP Design Services for the 25,500 sf historic renovation and reconstruction of the Old Main Building Rehabilitation. The new facility, which is currently being designed, will be used to house administrative and executive University functions and offices.

3)

(1) TITLE AND LOCATION *(City and State)*
Mayo Clinic Arizona – Stat Laboratory – Phoenix, AZ

(2) Year Completed – **2012**

Professional Services
Mechanical, Electrical, Plumbing, Fire Protection

Construction *(if applicable)* **2012**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Mechanical Engineer for the renovation of existing equipment storage rooms to add 483 sf of work area, anesthesia workroom, and stat lab within the Mayo Clinic Hospital. Mechanical and electrical capacity were configured for the new layout. AEI provided MEP, IT, fire alarm, and fire protection systems design.

4)

(1) TITLE AND LOCATION *(City and State)*
University of Arizona Health Network – University Campus Data Center Upgrades – Tucson, AZ

(2) Year Completed - **2012**

Professional Services
Mechanical, Electrical

Construction *(if applicable)* **2012**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager and Mechanical Engineer for this renovation to add cooling and electrical infrastructure for N+1 redundancy, supporting electronic patient medical records. Project includes computational fluid dynamic CFD modeling of the existing conditions and various options to improve airflow and reconfigure to hot aisle/cold aisle alignment.

5)

(1) TITLE AND LOCATION *(City and State)*
The University of Arizona Medical Center – Radiology Department Renovations – Tucson, AZ

(2) Year Completed – **2012**

Professional Services
Mechanical, Electrical

Construction *(if applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager and Mechanical Engineer for this master plan and 25,400 sf of renovations and equipment replacements within radiology. Completed projects include 2 MRI replacements and 2 CT replacements. Planned future projects include nuclear medicine, general radiography, interventional radiology, patient holding, waiting, and reading areas.

a. NAME	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
William Fiocchi	**Mechanical Engineer**	11. TOTAL **8**	12. WITH CURRENT FIRM **1**

d. FIRM NAME AND LOCATION *(City and State)* **Affiliated Engineers, Inc. Phoenix, Arizona**

e. EDUCATION *(DEGREE AND SPECIALIZATION)*
Bachelor of Science/Mechanical Engineering

CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Registered Professional Engineer Arizona Pending Mechanical
Registered Professional Engineer Illinois 062525 Mechanical

g. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)* **ASHE**

H. RELEVANT PROJECTS

1)

(1) TITLE AND LOCATION *(City and State)*
Veterans Administration Hines Hospital – HVAC Upgrade – Maywood, IL

2) Year Completed – **2010**

Professional Services
Mechanical, Electrical, Plumbing, Fire Alarm

Construction *(if applicable)* **2011**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Junior Project Manager/Lead Engineer for an extensive renovation of an existing 500,000 sf mixed-use hospital and patient bed tower. Activities included extensive field investigation to determine project scope definition, design for the replacement of existing HVAC systems including replacement of all AHU's, replacement of the steam distribution system, chilled water system upgrades, introduction of a clean steam system, and replacement of the outdated and segmented BAS system with a new central building wide BAS.

2)

(1) TITLE AND LOCATION *(City and State)*
University of Arizona – Health Sciences Education Building Shell Space Buildout – Phoenix, AZ

(2) Year Completed - **2013**

Professional Services\
Mechanical, Electrical, Plumbing

Construction *(if applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager/Mechanical Designer for MEP design of 50,000 SF build-out of shell space in the existing Health Sciences Education Building which is still under design.

3)

(1) TITLE AND LOCATION *(City and State)*
St. Joseph's Hospital and Medical Center (SJHMC) – Emergency Department Stat Laboratory Expansion – Phoenix, AZ

(2) Year Completed – **2013**

Professional Services
Mechanical, Electrical, Plumbing

Construction *(if applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager/Mechanical Engineer for MEP design of a 2,000 sf expansion of the SJHMC existing Stat Lab into shell space. Scope included relocating lab workstations and a Chemistry Analyzer and evaluating space cooling issues, all while minimizing disruptions to the existing laboratory services.

4)

(1) TITLE AND LOCATION *(City and State)*
University of Illinois, Champaign Urbana – Student Union HVAC Upgrade Champaign, IL

(2) Year Completed - **2009**

Professional Services
Mechanical, Electrical

Construction *(if applicable)* **2010**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Lead Engineer for the Historical Preservation Renovation of a 125,000 SF mixed use student union including hotel, kitchen, ballrooms, conference centers, and office spaces build in 1939. Retrofit work included the full replacement of existing dated air handling units and all supply, return and exhaust fans, extension of central HVAC system including heating and cooling of all spaces previously unconditioned, all while keeping the buildings historically significant features intact.

5)

(1) TITLE AND LOCATION *(City and State)*
Rehabilitation Institute of Chicago Hospital – HVAC Upgrade – Chicago, IL

(2) Year Completed – **2012**

Professional Services
Mechanical, Electrical

Construction *(if applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Junior Project Manager/Project Engineer for the design of a new $523M medical facility on a 1M sf surface lot, housing 272 patient beds, and holding space for 830 parking spaces above-grade in an enclosed parking garage. Project included a new, state-of-the-art MRI suites; scope activities primarily centered on developing full-service HVAC systems to meet the needs of a high-rise and specialized rehabilitation healthcare facility.

a. NAME	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
Charlie McGowan	**Mechanical Engineer**	13. TOTAL **3**	14. WITH CURRENT FIRM **3**

d. FIRM NAME AND LOCATION *(City and State)* **Affiliated Engineers, Inc. Phoenix, Arizona**

e. EDUCATION *(DEGREE AND SPECIALIZATION)*
Bachelor of Science/Mechanical Engineering

CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Engineer in Training / Mechanical

g. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)* **ASHE**

H. RELEVANT PROJECTS

1)

(1) TITLE AND LOCATION *(City and State)*
Mayo Clinic Arizona - Scottsdale Laboratory Mass Spectrometer - Scottsdale, AZ

2) Year Completed – **2012**

Professional Services
Mechanical, Electrical, Plumbing, IT

Construction *(if applicable)* **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Mechanical Designer for the installation of two new mass spectrometers and two gas generators. The project included a review and evaluation of the existing mechanical, electrical, IT, and piping systems to determine the impact of adding the mass spectrometer equipment.

2)

(1) TITLE AND LOCATION *(City and State)*
University of Arizona Health Network – University Campus Data Center Upgrades – Tucson, AZ

(2) Year Completed - **2012**

Professional Services\
Mechanical, Electrical, Plumbing

Construction *(if applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Mechanical Designer for this renovation to add cooling and electrical infrastructure for N+1 redundancy, supporting electronic patient medical records. Project includes computational fluid dynamic CFD modeling of the existing conditions and various options to improve airflow and reconfigure to hot aisle/cold aisle alignment.

3)

(1) TITLE AND LOCATION *(City and State)*
Banner Good Samaritan Medical Center (BGSMC) – Operating Room Expansion– Phoenix, AZ

(2) Year Completed – **2009**

Professional Services
Mechanical, Electrical, Plumbing

Construction *(if applicable)* **2010**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Mechanical Designer for this 70,000 sf renovation, 80,000 sf, two-story addition, and the fi t-out of existing basement shell space. The project created 20 new ORs and increased Pre-Op/PACU bays from 38 to 61 each; also, as part of the renovation, a new Sterile Processing Department was constructed, and the project included significant infrastructure upgrades.

4)

(1) TITLE AND LOCATION *(City and State)*
Arizona State University – HVAC and Chilled Water Reliability Study Tempe, AZ

(2) Year Completed - **2012**

Professional Services
Mechanical, Electrical

Construction *(if applicable)* **2012**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Mechanical Designer for this reliability assessment of the HVAC and chilled water systems serving the critical animal facilities on campus. The project also including as-built drawings of the campus central plant chilled water system and hydraulic model of the campus chilled water distribution system.

5)

(1) TITLE AND LOCATION *(City and State)*
Mayo Clinic Hospital – Catheterization Laboratory #2 Renovation – Phoenix, AZ

(2) Year Completed – **2009**

Professional Services
Mechanical, Electrical

Construction *(if applicable)* **2010**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Mechanical Designer for the 750 sf renovation of existing imaging, control and equipment rooms, including the replacement of the existing imaging lab equipment with new Phillips Allura equipment and modification to the existing MEP systems as required to support these changes. The existing equipment room air conditioning unit was replaced with a chilled water unit.

a. NAME	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
Jeff Cordell	**Plumbing Design**	15. TOTAL **15**	16. WITH CURRENT FIRM **1**

d. FIRM NAME AND LOCATION *(City and State)* **Affiliated Engineers, Inc. Phoenix, Arizona**

e. EDUCATION *(DEGREE AND SPECIALIZATION)*
Architectural Computer Aided Drafting

CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
National Inspection Testing Certification
American Society of Sanitary Engineers 6020

g. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)* **ASPE, PIPE**

H. RELEVANT PROJECTS

1)

(1) TITLE AND LOCATION *(City and State)*
University of Arizona – Health Sciences Education Building Shell, Phoenix, AZ

2) Year Completed – **2013**

Professional Services
Mechanical, Electrical, Plumbing, Piping

Construction *(if applicable)* **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Piping/Plumbing Designer for MEP design of 50,000 SF build-out of shell space in the existing Health Sciences Education Building which is currently in design.

2)

(1) TITLE AND LOCATION *(City and State)*
University of Arizona BioScience Research Laboratories – Tucson, AZ

(2) Year Completed - **2013**

Professional Services\
Mechanical, Electrical, Plumbing, Piping

Construction *(if applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Piping/Plumbing Designer for this 150,000 sf cutting-edge research laboratory on the University of Arizona Tucson Campus, and will house offices, support space, conference rooms and specialized core facilities, including clinical research space. The project is being designed/constructed to minimum LEED Silver requirements.

3)

(1) TITLE AND LOCATION *(City and State)*
Banner Good Samaritan Medical Center (BGSMC) – Operating Room Expansion– Phoenix, AZ

(2) Year Completed – **2009**

Professional Services
Mechanical, Electrical, Plumbing, Piping

Construction *(if applicable)* **2010**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Mechanical Designer for this 70,000 sf renovation, 80,000 sf, two-story addition, and the fi t-out of existing basement shell space. The project created 20 new ORs and increased Pre-Op/PACU bays from 38 to 61 each; also, as part of the renovation, a new Sterile Processing Department was constructed, and the project included significant infrastructure upgrades.

4)

(1) TITLE AND LOCATION *(City and State)*
Dignity Health – Westgate Medical Center - Glendale, AZ

(2) Year Completed - **2012**

Professional Services
Mechanical, Electrical, Piping

Construction *(if applicable)* **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Piping/Plumbing Designer for a new, 24-bed acute care medical center and Emergency Department. This two-story, 60,400 sf project is designed for future, continuous expansion and will be able to expand to an eventual 500-bed inpatient hospital; the project is being delivered using the Design-Build delivery method.

5)

(1) TITLE AND LOCATION *(City and State)*
Banner Good Samaritan Medical Center – Hyperbaric Expansion - Phoenix, AZ

(2) Year Completed – **2009**

Professional Services
Mechanical, Electrical

Construction *(if applicable)* **2010**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Piping/Plumbing Designer for MEP design of a Hyperbaric Expansion in the Rehabilitation building at Banner Good Samaritan Medical Center, specifically renovating space to support two additional hyperbaric chambers, dressing rooms and support space, and also renovating the main waiting room, registration desk and portions of the physical therapy area.

5. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present no more than five (5) projects. Complete one Section 5 for each project.)

a. TITLE AND LOCATION *(City and State)*	b. YEAR COMPLETED	
Banner Good Samaritan Operating Room Expansion – Phoenix, AZ	PROFESSIONAL SERVICES **Mechanical, Electrical, Plumbing**	CONSTRUCTION *(If applicable)* **2012**

23. PROJECT OWNER'S INFORMATION

c .PROJECT OWNER	d .DOLLAR AMOUNT OF PROJECT	e. TOTAL COST OF PROJECT
Banner Health	**$35,000,000**	**$70,000,000**

f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

AEI provided mechanical, electrical and piping/plumbing engineering design services for the BGSMC Operating Room (OR) Expansion project. The expansion included an 80,000 sf, two-story addition, a 70,000 sf renovation of existing OR space, and the fi t-out of existing basement shell space. The basement is home to new auxiliary chillers and a rotary UPS system. The project created 20 new ORs and increased Pre-Op/PACU bays from 38 to 61 each; also, as part of the renovation, a new Sterile Processing Department was constructed, and the project included significant infrastructure upgrades. Upgrades included replacing the secondary chilled water pumps, integrating a new 1000-ton chiller into the existing 5000-ton plant, and installing a new 1250 kW engine/generator. The AEI team was extremely fortunate to work with a design and construction team who had worked for years on the BGSMC Campus. As a result, our team knew the acceptable products and installation techniques for this campus, so that the drawings and specifications were geared precisely for this project. AEI worked proactively with the owner prior to design commencement to evaluate existing major infrastructure, and in so doing identified a need for additional chilled water capacity and essential power. During construction, AEI worked closely with the trade contractors to resolve issues before they had an impact to the schedule or overall budget. Based on our experience working in sensitive, 24/7 facilities, we have found that close communication is the most effective project approach to avoid potential challenges. As construction came to a close, many of the anticipated facility users provided feedback as they walked through the new space on relatively minor issues, such as the placement of light switches or equipment. To facilitate the comfort and practical needs of these professionals, we accommodated these design issues via RFIs prior to negotiations with the client. AEI's Principal-in-Charge regularly attended weekly design review meetings until the CD phase, at which point our Project Manager attended these discussions; consistently, our team actively and productively contributed to these discussions. Although this project did not subscribe to LEED goals or standards, our team consistently strove for overall energy efficiency.

a. TITLE AND LOCATION *(City and State)*	b. YEAR COMPLETED	
Arizona State Library Learning Laboratories – Phoenix, AZ	PROFESSIONAL SERVICES **Mechanical, Electrical, Plumbing**	CONSTRUCTION *(If applicable)* **2013**

23. PROJECT OWNER'S INFORMATION

c .PROJECT OWNER	d .DOLLAR AMOUNT OF PROJECT	e. TOTAL COST OF PROJECT
Arizona State University	**$3,000,000**	**$4,000,000**

f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

As the first phase in ASU's master plan redevelopment project for Hayden Library, this remodel project transformed approximately 22,500 SF of Level 0 student study space into (2) new 75-person learning labs and (1) 150-person learning lab with dozens of computer docking stations. In adopting a new teaching model and educational curriculum that encourages self-learning, ASU required more flexible learning spaces that could accommodate their advancing space and technological needs. The existing air handler serving both levels of the building's previous addition did not have enough outdoor air capacity to meet the fresh air requirements for the increase in occupancy to 400 persons; therefore, a new air handling system was added to accommodate the system, and a new interior mechanical space was created on the lower level. During design, selection of equipment and layout of space was coordinated with the master plan. The new air handler casing and outdoor air intake, for instance, were sized for final buildout of the library, but the fans and cooling coil were sized for today's needs. This strategy precludes the need for a second new air handler in future phases. Space flexibility was also a key directive. AEI designed a raised floor to locate electrical and data outlets throughout the lab space, so that furniture can be freely arranged to meet the changing needs of the various departments utilizing the space. Although on an accelerated 12-week design schedule, AEI facilitated the overall process by combining the programming, conceptual and schematic design phases. Our team successfully met ASU's schedule for owner review. During construction, the excavation for the outdoor air duct was measured improperly; to quickly rectify the situation and maintain overall budget and schedule, the design team worked very quickly and closely to rework the ductwork that needed to be installed at this location, all without placing blame on any single party. Through effective pre-planning and constant communication, this project encountered no project team disputes. AEI led weekly design review meetings with various stakeholders from ASU, their associated user groups, the architect and the civil engineer to facilitate communication, transparency and efficiency. AEI representatives also attended the weekly OAC (Owner/Architect/Contractor) meetings. AEI designed the project to exceed current energy codes, but did not pursue any formal LEED© certification.

a. TITLE AND LOCATION *(City and State)*	b. YEAR COMPLETED	
Corporate Arc Flash Studies, Hazard Analyses and Short Circuit Coordination – AZ	PROFESSIONAL SERVICES **Electrical, Plumbing**	CONSTRUCTION *(If applicable)* **2012**

23. PROJECT OWNER'S INFORMATION

c .PROJECT OWNER	d .DOLLAR AMOUNT OF PROJECT	e. TOTAL COST OF PROJECT
Banner Health	**Studies varied between $29,000 – 54,000**	**No Applicable Construction Costs**

f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

AEI provided electrical engineering services for multiple arc flash hazard analysis and short circuit coordination studies at six Banner Health locations: the Corporate Office (Phoenix); Banner Good Samaritan Medical Center (Phoenix); Phoenix; Banner Boswell Medical Center (Sun City); Banner Del E. Webb Medical Center (Sun City West); Banner Desert Medical Center (Mesa); and Banner Gateway Medical Center (Gilbert). The projects included short-circuit analyses and Protective Device Coordination studies, and from these analyses AEI provided recommendations for fault current improvements and over-current protection device settings to help reduce Arc Flash Hazards. AEI developed Arc Flash Hazard Warning labels for each piece of electrical equipment and provided each location with a comprehensive, updated electrical one-line diagram. As a result of these comprehensive efforts, these Banner facilities have safer and more reliable electrical systems operations. The AEI team attributes efficient planning to accurate surveying; in other words, our team did not need to duplicate work because we surveyed all the electrical equipment prior to commencement of the analysis. AEI recognized the value of partnering with a contractor and testing organization early in the process. Cannon & Wendt and Emerson Power provided fast, accurate field verification, allowing AEI to focus efforts on the engineering, allowing our team to quickly complete the work for six large campuses. Through effective pre-planning and constant communication, this project encountered no project team disputes. While these projects were not intended to result in construction projects, a number of issues requiring corrective action were identified. AEI kept these situations to a minimum by paying close attention to the coordination studies. Existing adjustable trip devices were tweaked wherever possible, in lieu of replacing others. While continuity of operations was the project's primary goal, AEI also included energy efficiency in the top criteria for equipment selection.

a. TITLE AND LOCATION *(City and State)*	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Phoenix Sky Harbor International Airport Terminal 3 Parking Garage Lighting Phoenix, AZ	**Electrical**	**2013**

23. PROJECT OWNER'S INFORMATION

c .PROJECT OWNER	d .DOLLAR AMOUNT OF PROJECT	e. TOTAL COST OF PROJECT
City of Phoenix	**$2,000,000**	**Unknown**

f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

As part of a Design-Build team led by Sun Eagle; AEI and Pivotal© Lighting Design (AEI's lighting design studio) were hired to design a new lighting LED system for the 8 levels of the Phoenix Sky Harbor International Airport T3 Parking Garage, covering more than 1M sf. Scope included a complete replacement of the lighting system, as well as conducting lighting studies to provide recommendations for the most suitable levels of illumination, while at the same time taking safety and energy conservation into primary consideration. Also included in this project was the renovation of the lighting within the elevator lobbies and stairwells, utilizing both LED and linear fluorescent type luminaries, installation of a separate power distribution system (to allow for the APS e67 billing rate held exclusively for City of Phoenix-owned lighting loads), replacement of the existing APS transformer, new service meter for the garage infrastructure, a new step-down transformer to maintain the existing separately metered tenant's 208V system, and a 480Y/277-Volt distribution panel and associated downstream lighting panels. Prequalification specifications were developed following the development of the lighting recommendations report. AEI provided preliminary review of all submittals from lighting manufacturers and their associated representatives to determine if they met IES recommended minimum foot-candle levels, average foot-candle levels and maximum/minimum ratios as indicated in the specifications. To track all of this information, our team created a spreadsheet to organize review comments and capture life cycle cost analysis, provided manufacturers with review status, and also regularly attended meetings with the construction team to provide project status updates. Our team also followed up with individual lighting manufacturers for proper documentation. Following the installation of some faulty LED drivers, AEI facilitated meetings between the fixture manufacturer, general contractor, and the rest of the design team to resolve the issue as quickly and efficiently as possible Although AEI was not directly engaged in any disputes on the project, we did facilitate meetings to ensure that other parties were functioning well together; as a result, our team was able to remain on track with schedule and project cost. The entire project team had a weekly meeting with the owner to ensure that the project was proceeding according to schedule, and also to coordinate construction activities with normal airport operations. The project emphasized energy reduction and sustainability measures to promote a safe environment, but did not follow LEED parameters.

a. TITLE AND LOCATION *(City and State)*	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Information Operations Center Data Center Electrical Assessments/Upgrades Phoenix, AZ	**Electrical**	**2011**

23. PROJECT OWNER'S INFORMATION

c .PROJECT OWNER	d .DOLLAR AMOUNT OF PROJECT	e. TOTAL COST OF PROJECT
City of Phoenix	**$111,000 Study and Design**	**$850,000**

f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

As part of a City of Phoenix effort to update aging IT infrastructure in one of two local data centers, AEI conducted an electrical assessment and organized the server rack branch circuit distribution system. The project provided the client with infrastructure design options to improve electrical reliability and redundancy via a new UPS system, as well as branch circuit design options to incorporate the "B" side UPS system via phased implementation. Through a regular series of weekly meetings and presentations, AEI and the City of Phoenix mutually developed, reviewed and approved detailed design drawings. The design process was challenging, given the scope of expansion, the limited available building area for new and updated equipment, and budgetary restrictions. Engaging the client early in the design process helped AEI understand their vision and future goals for anticipated growth, and to provide plan options that maximized scope while minimizing cost. In turn, AEI became a trusted advisor on trends in data center design. As one of only two data centers used by the City of Phoenix, eliminating construction impacts to daily operations in this fully operational facility was critical. By developing a step-by-step construction sequence, our team gained a comprehensive understanding of the existing system that allowed us to design the finished product. In deference to site security considerations, our team also scheduled field verification time well in advance. Through effective pre-planning and continual communication, the project encountered no disputes. Maintaining regular and deliberate client contact on daily anticipated issues frequently yielded unanticipated discussion regarding project-specific details. By combining the client's extensive knowledge of data center operations with AEI's design and construction experience, project meetings facilitated over-communication and ensured full disclosure to the client. Because the Electrical Contractor was hired after design completion, AEI aggressively engaged them in project history discussion, resulting in zero impact to team operations. While continuity of operations was the project's primary goal, AEI also included energy efficiency in the top criteria for equipment selection.

6. ADDITIONAL INFORMATION

a. PROVIDE ANY ADDITIONAL INFORMATION YOU FEEL MAY BE NECESSARY TO DESCRIBE YOUR FIRMS QUALIFICATIONS. *(ATTACH ADDITIONAL SHEETS AS NEEDED.)*

As a firm, AEI brings significant relevant experience, but more importantly, the team that we have assembled brings a uniquely diverse and yet integrated set of skills required to perform all aspects of the projects that this proposal may cover. These aspects might include studies, investigations, surveying/mapping, testing, evaluations, consultations, planning, program management, value engineering, conceptual designs, schematic designs, design development, construction documentation and bid and construction support services, including commissioning. This team works seamlessly and side-by-side everyday on high-performance projects for a diverse set of clientele. Our team offers both the depth and flexibility to deliver a wide variety of projects ranging in size, scope, and complexity, including renovation work. Understanding the entire building process is a skill set that has put our team at the forefront of respected MEP design firms. Our project team representatives have collaborated on a diverse range of dozens of projects for varied clientele, including recent examples such as the Arizona State University HVAC/Chilled Water Reliability Study, Phoenix Sky Harbor International Airport Terminal 3 Project and ASU's Hayden Library Learning Laboratories. Our team members work in a close-knit office environment, where everyone can lend input and insight from their respective expertise to any given project, regardless of their formal involvement; this also means that our mechanical and electrical departments also work together extensively, so that there is seamless coordination between disciplines. As a team unit, they are extremely efficient in their project approach and at staying on-schedule and on-budget. Project team integration has always been essential to the successful delivery of complex building types. This has become all the more necessary with the compounding functional complexity of sustainable strategies and technologies, and with the yet greater coordination required by any desired schedule compression and overlap. We have significant experience with coordinated team efforts, and know that any approach will be subject to the idiosyncratic details of the project and the form of agreement. Mechanical, Electrical and Plumbing professional's participation during concept development, and as Engineering Prime, yield valuable collective insights that might otherwise only amount to costly or powerless hindsight, and engendering a thorough early understanding of programmatic intent can facilitate efficiencies in construction. Saving time in completing projects is a two-faceted issue: first, from a design standpoint, project completion requires deploying the right personnel and the right number of field workers dedicated to completing design documents in a timely manner, keeping the project moving forward without any delays. Secondly, each team member understands that he/she is a key contributor to AEI's quality assurance program, empowering and encouraging them to bring any issue to the forefront so that it may be addressed as early as possible. AEI has a long history of being on site when it counts, and as needed to maintain budget, and schedule control. We establish a strong leadership profile on the job site. We want to know and understand the contractors, their key staff and contribute up front and to ongoing communications as to the expectations of the project. This process starts during the bidding process and comes into focus at the pre-construction meeting. We firmly but fairly hold the contractors accountable to the requirements of their contracts. The surest method to resolve potential risks to the budget and schedule is to prevent it by ensuring the outcome matches the prediction. Its prevention is achieved through detailed knowledge of the specific functional environment, including the impact of construction on existing operations. We have found that close communication with the facility engineering staff and other stakeholders at the facility has been one predictor of success. During design, we begin planning the mitigation of potential construction impacts, with appropriate participation by the facilities team. Another requirement to achieving the predicted result is through having a deep understanding of the building characteristics, and creating an accurate building energy model. As noted above, the thoughtful analysis of the application of optional systems, before committing to anyone, and then performing thorough modeling and analysis to determine the detailed design characteristics will ensure that the predicted performance will be verifiable once installed and operational over time. In addition to bringing the strong technical knowledge and engineering experience necessary for development of the appropriate engineering solutions, the AEI team is structured to provide strong project management to ensure the project proceeds along a plan that focuses the technical team on the task at hand, timely decisions, and earned progress to complete the design on a schedule required by the contract documents.

Affiliated Engineers, Inc. currently holds an Arizona Business License No. F-0041712-5 Branch Office Engineering Registration No. 11592-1
AEI has 11 offices throughout the United States, including our office in Phoenix, with our principal office located in Madison, Wisconsin. All services provided to the State of Arizona will be performed out of AEI's Phoenix, Arizona office.

7. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

a.	Percentage of Total Work Attributable to State, Federal and Municipal Government Work:	50%
b.	Percentage of Total Work Attributable to Non-Government Work:	50%

8. AUTHORIZED REPRESENTATIVE. The foregoing is a statement of facts.

Signature: _____ Date: December 12, 2013

Name: Steven Yanke Title: Managing Director