

**Request for Qualifications**  
Solicitation No.  
**ADSP017-00006796**  
Description:  
**2017 Annual Professional Services List**

Arizona Department of  
Administration  
**State Procurement Office**  
100 N 15th Ave., Suite 201  
Phoenix, AZ 85007

Attachment 1  
**Offer and Acceptance Form**

**SUBMISSION OF OFFER:** Undersigned hereby offers and agrees to provide qualifications for **2017 Annual Professional Services List** in compliance with the Solicitation indicated above and our Offer indicated by the latest dated version below:

Initial Offer:	1.	02/14/2017	LAJ	
		date	initial	

**LSW Engineers Arizona, Inc.**

Offeror company name

**LAJ**

Signature of person authorized to sign Offer

Initials

**2333 W. Northern Avenue, Suite 9**

Address

**Lance A. Jones, PE, President**

Printed name and title

**Phoenix | Arizona | 85021**

City | State | ZIP

**Lance A. Jones, PE, President**

Contact name and title

**86-0173957**

Federal tax identifier (EIN or SSN)

**[ljones@lswphx.com](mailto:ljones@lswphx.com)**

Contact Email Address

**602-249-1320**

Contact phone number

**CERTIFICATION:** By signature in the above, Offeror certifies that it:

- will not discriminate against any employee or applicant for employment in violation of Federal Executive Order 11246, [Arizona] State Executive Order 2009-9 or A.R.S. §§ 41-1461 through 1465;
- has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted offer. Failure to provide a valid signature affirming the stipulations required by this clause will result in rejection of the Offer. Signing the Offer with a false statement will void the Offer, any resulting contract, and may be subject to legal penalties under law;
- complies with A.R.S. § 41-3532 when offering electronics or information technology products, services, or maintenance; and
- is not debarred from, or otherwise prohibited from participating in any contract awarded by federal, state, or local government.

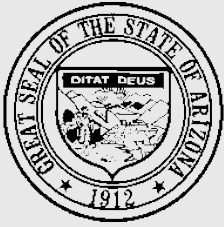
**ACCEPTANCE OF OFFER:** State hereby **accepts the initial Offer**, Revised Offer, or Best and Final Offer identified by number **ADSP017-00006796** at the top of this form, and which was dated 02/14/17 (the Accepted Offer). Offeror is now bound (as Contractor) to carry out the Work under the attached Contract, of which the Accepted Offer forms a part. Contractor is cautioned not to commence any billable work or to provide any material or perform any service under the Contract until Contractor receives the applicable Order or written notice to proceed from Procurement Officer.

State's Contract No. is: **ADSP017-00006796**      The effective date of the Contract is: 04/03/17-01/30/18      Contract awarded 04/03/17

Procurement Officer signature

**Gina DeCotiis**  
Procurement Officer printed name

Contract qualification award can be viewed at <https://spo.az.gov/procurement-services/professional-services>



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**Attachment 2-A**  
**Experience and Capacity**

STATE MAY DETERMINE YOUR SUBMITTAL IS NON-RESPONSIVE IF YOU DO NOT ANSWER ALL QUESTIONS FULLY.

**DEFINITIONS**

Architect Services, Engineer Services, Land Surveying Services, Assayer Services, Geologist Services and Landscape Architect Services: Those professional services within the scope of the practice of those services as provided in A.R.S § 32-101.

**Branch Office:** A geographically distinct place of business or subsidiary office of a firm that has a key role on the team.

**Discipline:** Primary technical capabilities of key personnel, as evidenced by academic degree, professional registration, certification, and/or extensive experience.

**Firm:** Defined in A.R.S § 32-101(B.13.).

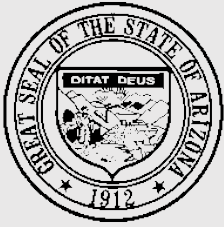
**Key Personnel:** Individuals who will have major contract responsibilities and/or provide unusual or unique expertise.

**Structure:** How a business is organized to accomplish its objectives (ie, Sole Proprietor, Limited Liability Company, Cooperative, Corporation, Partnership, S Corporation).

**1.0 Five (5) Example Projects**

List no more than five (5) **ARIZONA PROJECT** Example Projects Which Best Illustrate Firms Qualification for this contract in the chart provided below. Select project where multiple team members worked together, if possible, that demonstrate the team's capability to perform work similar to that required for this qualifications list contract. (NOTE: The integrity of the chart table columns shall remain unchanged, however the rows for each project may be expanded by the Offeror to accommodate the information).

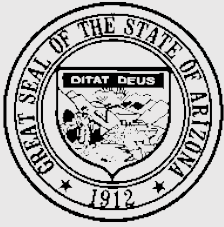
- a. Title and Locations of project or contract. For an indefinite delivery contract, the location is the geographic scope of the contract.
- b. Enter the year completed of the professional services (such as planning, engineering study, or design), and/or the year completed if construction. If any of the professional services or the construction projects are not complete, leave Year Completed blank and indicate the status in Brief Description of Project and Relevance to This Contract (block f).
- c. Project Owner or user, such as a government agency or installation, an institution, a corporation or private individual.
- d. Provide the original budget or not to exceed dollar amount for the project.
- e. Provide the Total Cost of the Project. If any of the professional services or construction projects is not complete, indicate the percentage complete and whether this project will be on budget, over or under budget.
- f. Brief Description: Indicate scope, size, and length of project, principle elements and special features of the project. Discuss the relevance of the example project to this contract.



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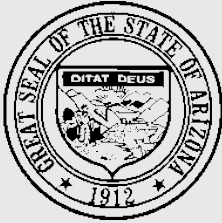
Title and Location of Project	Design Completion Year	Construction Completion Year	Project Owner	Project Original Budget (or not to exceed amount)	Total Cost of the Project	Brief Description of Project
Capitol Mall Fire Alarm Replacement, Phoenix, AZ	2015 2016 – Capitol Archives/Justice Building	2016 2017 – Capitol Archives/Justice Building	ADOA	Unknown	\$691,830	LSW provided technology design and construction administration services for the fire alarm replacements for the Capitol Museum, Capitol Archives, Capitol Justice, House of Representatives, and Senate Building totaling 282,280 SF.
1200-1275 W. Washington Central Plant Upgrades	2016	2016	ADOA	\$1,199,000	\$1,224,171	LSW provided the analysis, design and construction administration services for upgrades to the central chiller plant. The equipment that was replaced includes chillers, cooling towers, pumps, controls, refrigerant monitor system and other accessories within the chiller plant.
City Hall Service Entrance Section (SES) Replacement, Tempe, AZ	2015	2016	City of Tempe	\$525,000	F762,629	LSW provided electrical design and construction administration for the replacement of the existing SES and associated electrical distribution equipment. Design included power distribution/ connection to the existing equipment, sizing/location of the main SES and distribution switchgear, and site lighting.



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Title and Location of Project	Design Completion Year	Construction Completion Year	Project Owner	Project Original Budget (or not to exceed amount)	Total Cost of the Project	Brief Description of Project
Public Safety Building/Data Room CRAC Unit Replacement	2015	2015	City of Glendale	\$387,000	\$387,000	This project includes the replacement of two air-cooled CRAC units of the City of Glendale's Public Safety Building Data Room. The mechanical component includes two DX CRAC units with new rooftop condensers, refrigerant piping and condensate drain piping. The electrical components of the project includes new branch circuits for the CRAC units with generator power to allow at least one of the units to operate during a power outage. This includes transfer switching so that the unit connected to the generator power can be switched based on power availability.
Scottsdale Police District 3 Automation Control Systems	2015	2015	City of Scottsdale	\$160,000	\$155,228	LSW provided design and construction administration services for the upgrades to the existing HVAC system including 40 VAV boxes/sensors, two chillers, two cooling towers, two chilled water pumps, two condenser pumps, two VAV air handling units/return air fans, a new communication cable to the 911 area, and connection to the existing server room.



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Attachment 2-A  
**Experience and Capacity**

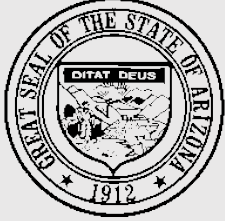
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**2.0 EMPLOYEES BY DISCIPLINE**

<b>Aeronautical Engineer</b>	<b>Electrical Engineer</b>	<b>Mechanical Engineer</b>
<b>Agricultural Engineer</b>	<b>Environmental Engineer</b>	<b>Metallurgical Engineer</b>
<b>Archeologist</b>	<b>Environmental Scientist</b>	<b>Mining Engineer</b>
<b>Architect</b>	<b>Fire Protection Engineer</b>	<b>Nuclear Engineer</b>
<b>Architectural Engineering</b>	<b>Geodetic Surveyor</b>	<b>Petroleum Engineer</b>
<b>Biologist</b>	<b>Geographic Information System Specialist</b>	<b>Photogrammetrist</b>
<b>CADD Technician</b>	<b>Geological Engineer</b>	<b>Project Manager</b>
<b>Chemical Engineer</b>	<b>Geologist</b>	<b>Sanitary Engineer</b>
<b>Civil Engineer</b>	<b>Hydrographic Surveyor</b>	<b>Soils Engineer</b>
<b>Construction Manager</b>	<b>Hydraulic Engineer</b>	<b>Structural Engineer</b>
<b>Construction Inspector</b>	<b>Hydrologist</b>	<b>Technician/Analyst</b>
<b>Control Systems Engineer</b>	<b>Industrial Engineer</b>	<b>Transportation Engineer</b>
<b>Cost Engineer/Estimator</b>	<b>Landscape Architect</b>	<b>Water Resources Engineer</b>

Enter requested information in the chart provided below:

- a. Select disciplines from the List of Disciplines. For employees that do not qualify for any of the disciplines, select "Other".
- b. Each person can be counted only twice; once for his/her primary function and once for his/her secondary function. Primary and secondary functions should be indicated by including a "P" or an "S" in column b after the Description Title is given.
- c-d. If the form is completed for a firm (including all branch offices), enter the number of employees by disciplines in column c. If the form is completed for a branch office, enter the number of employees by discipline in column d and for the firm in column c. (NOTE: The Offeror may insert or delete rows in the existing Employees by Discipline chart table on page six (6 as necessary to complete the requirements for Question 2).



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a. Discipline Title	b. Function: Primary (P) or Secondary (S)	c. No. of Employees Firm	d. No. of Employees Branch
Mechanical Engineer	P	9	9
Electrical Engineer	P	7	7
Project Manager	S	15	15
CADD Technician	P	5	5
CADD Technician	S	15	15
Other: Mechanical Designer	P	5	5
Other: Electrical Designer	P	10	10
Other: Field Observer	P	2	2
<b>Total</b>		49	



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### 3.0 FIRMS EXPERIENCE AND REVENUE

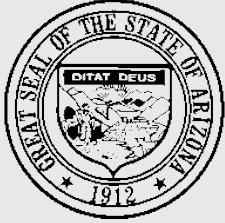
- a. Firm shall complete the Excel spreadsheet titled "Amendment I Project Experience Number of Projects and Revenue", using same document title and upload in Excel format as an "Attachment" with firm's offer in ProcureAZ. ([NOTE: Amendment I version clarifies column instructions and additions of project experience categories](#)).

Refer to Excel Spreadsheet titled "**Project Experience Number of Projects and Revenue.**"

### 4.0 FIRMS SERVICES

- a. Firm shall complete the Excel spreadsheet titled "**2017 Professional Services List of Firms Services**" [shall be completed and uploaded in Excel format only as an "Attachment" in ProcureAZ at time of offer submission.](#)

Refer to Excel Spreadsheet titled "**Professional Services List of Firms Services.**"



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**EXPERIENCE REFERENCES:**

THE PRIME FIRM SHALL LIST A TOTAL OF THREE (3) CLIENT REFERENCES FOR ANY PROJECTS COMPLETED IN THE LAST YEAR BY THE FIRM (OR A BRANCH LOCATION). REFERENCES MAY BE CONTACTED BY ANY ELIGIBLE AGENCY.

<b>1</b>	<b>Client Company/Address</b>	<b>Contact</b>	<b>Begin Date</b>	<b>End Date</b>
	<b>Arizona Department of Administration</b> 100 N. 15 <sup>th</sup> Ave., Ste 202 Phoenix, AZ 85007	Carlos Sawabe	06/2013	11/2015
	<b>Phone Number</b>	<b>Email Address</b>		
	602.542.1730	carlos.sawabe@azdoa.gov		
List project name, project location, original design fee, final design fee, construction costs (if applicable), and program facilities.				
Capitol Mall Fire Alarm Replacement for Capitol Museum, Capitol Archives, Capitol Justice, House of Representatives, Senate Building, and Archives/Justice building located in Phoenix, AZ. Original/Final Design Fee: \$62,140/\$74,460. Construction Cost: \$786,232				
<b>Services performed similar to those described in Solicitation</b>				
LSW was the prime contract holder, provided technology design and construction administration services for the fire alarm replacements for the Capitol Museum, Capitol Archives, Capitol Justice, House of Representatives, Senate Building, and Archives/Justice building totaling 282,280 SF.				
<b>2</b>	<b>Client Company/Address</b>	<b>Contact</b>	<b>Begin Date</b>	<b>End Date</b>
	<b>City of Tempe</b> 31 E. Fifth Street Tempe, AZ 85281	Erich Bonz	September 2015	July 2016
	<b>Phone Number</b>	<b>Email Address</b>		
	480.350.5827	eric_bonz@tempe.gov		
List project name, project location, original design fee, final design fee, construction costs (if applicable), and program facilities.				
<b>City Hall Service Entrance Section Replacement, Tempe, AZ. Original/Final Design Fee: \$60,313/\$60,313. Construction Cost: \$762,629</b>				
<b>Services performed similar to those described in Solicitation</b>				
LSW was the prime contract holder, responsible for complete electrical design and construction administration services.				



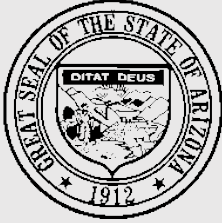


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3	Client Company/Address	Contact	Begin Date	End Date
	<b>City of Glendale</b> 5850 W. Glendale Avenue, Suite 315 Glendale, AZ 85301	<a href="#">Michael Johnson</a>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<b>Phone Number</b> 623.930.3628	<b>Email Address</b> <a href="mailto:MJohnson@GLENDALEAZ.com">MJohnson@GLENDALEAZ.com</a>		
<b>List project name, project location, original design fee, final design fee, construction costs (if applicable), and program facilities.</b> Public Safety Building, CRAC Unit Replacement. Original/Final Design Fee: \$26,438/\$26,438. Construction Cost: \$387,000				
<b>Services performed similar to those described in Solicitation</b> LSW was the prime contract holder, responsible for complete mechanical, plumbing, and electrical engineering design and construction phase services for the CRAC Unit Replacement in the Public Safety Building's Data Room.				

End of Attachment 2-A



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Attachment 2-B  
**Organization Profile**

STATE MAY DETERMINE YOUR PROPOSAL IS NON-RESPONSIVE IF YOU DO NOT ANSWER ALL QUESTIONS FULLY.

**ORGANIZATION PROFILE**

<b>Firm Name</b>	<b>LSW Engineers Arizona, Inc.</b>	<b>Year established</b>	<b>1947</b>
<b>Principal address (street, city, state)</b>	<b>2333 W. Northern Avenue, Suite 9, Phoenix, AZ 85021</b>		
<b>Entity type:</b>	<b>C Corporation</b>	<b>Structure:</b>	<b>x</b>
<b>Branch or Division:</b>	<b>Corporate Phoenix Office</b>	<b>Parent:</b>	<b>None</b>
<b>Years the organization has conducted business in Arizona.</b>			<b>70</b>
<b>Contract Representatives to Contact</b>			
<b>Name</b>	<b>Title</b>	<b>Telephone Number</b>	<b>E-Mail Address</b>
<b>1. Lance Jones</b>	<b>President</b>	<b>602.249.1320</b>	<b>ljones@lswphx.com</b>
<b>2. Philip Mouw</b>	<b>Vice President</b>	<b>602.249.1320</b>	<b>pmouw@lswphx.com</b>
<b>3. Mark Ralston</b>	<b>Vice President</b>	<b>602.249.1320</b>	<b>mralston@lswphx.com</b>
<b>Firm Professional Licenses/Certifications (INCLUDE COPY OF DOCUMENT IN OFFER)</b>			
<b>Description</b>	<b>Issuer</b>	<b>Number</b>	<b>Expiration</b>
<b>4. Board of Technical Registration</b>	<b>State of Arizona</b>	<b>10252-0</b>	<b>04/30/2017</b>
<b>5. Privilege Tax License</b>	<b>State of Arizona</b>	<b>07582667-E</b>	<b>12/31/2017</b>
<b>6.</b>			

**End of Attachment 2-B**

STATE OF ARIZONA  
BOARD OF TECHNICAL REGISTRATION

■ FIRM REGISTRATION ■

FIRM NAME  
LSW Engineers Arizona, Inc.

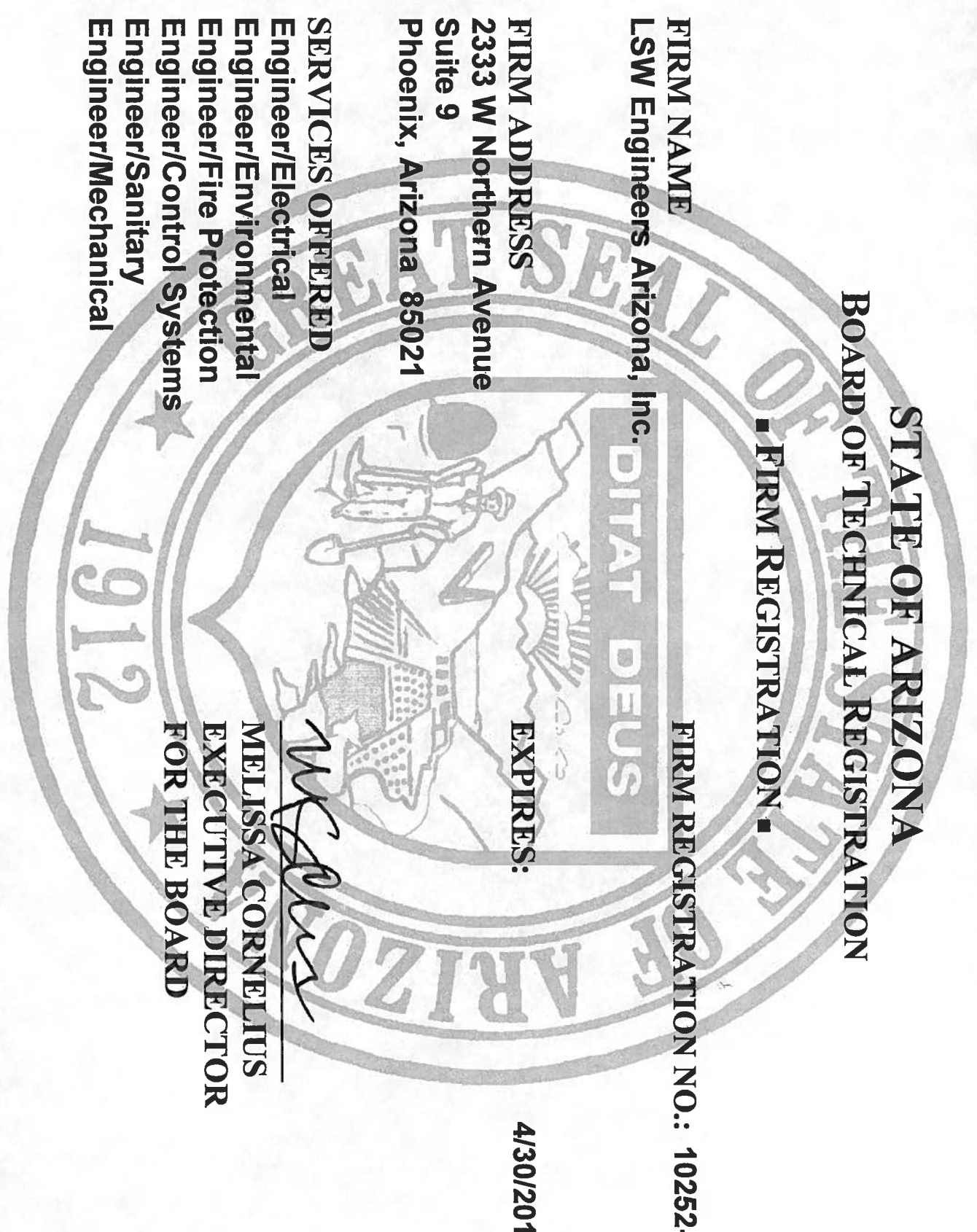
FIRM REGISTRATION NO.: 10252-0

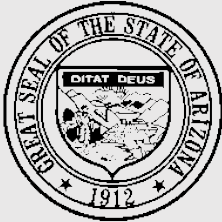
FIRM ADDRESS  
2333 W Northern Avenue  
Suite 9  
Phoenix, Arizona 85021

EXPIRES:  
4/30/2017

SERVICES OFFERED  
Engineer/Electrical  
Engineer/Environmental  
Engineer/Fire Protection  
Engineer/Control Systems  
Engineer/Sanitary  
Engineer/Mechanical

  
MELISSA CORNELIUS  
EXECUTIVE DIRECTOR  
FOR THE BOARD



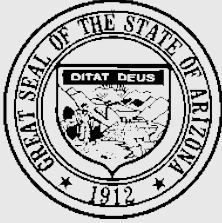


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Attachment 3-B  
**Key Personnel Proposal**

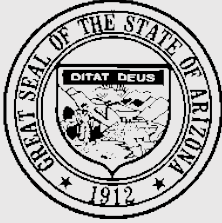
<b>1</b>	<b>Name:</b>	<b>Lance A. Jones</b>	How long with company?	<b>23 years</b>
	Current position in company:	<b>President / Mechanical Engineer</b>	How long in position?	<b>5 years</b>
	Position for the Services:	<b>Principal-in-Charge</b>	How much of time will be dedicated to the Services?	<b>15 %</b>
	What primary functions will be assigned?	<b>Lance will oversee the firms commitment to the project – personnel and resources. He will review the project’s progress and schedule with the Project Manager, Lance will ensure that the quality control process is implemented.</b>		
	Describe person’s experience in performing services like those that are to be assigned:	<b>Lance has 32 years of extensive experience in the analysis and design and layout of HVAC and plumbing systems, and energy analysis of building systems. He serves as President but remains active in project activities. Lance directs a staff of mechanical engineers, designers and CAD operators in the preparation of technical reports, engineering investigations and concept studied; preparation of preliminary and final designs; preparation of contract drawings and specifications.</b>		
	List person’s job-related training and education:	<u>Education:</u> <b>Bachelor of Science in Mechanical Engineering, Montana State University, 1983</b>  <u>Registrations:</u> <b>Arizona No. 20795 Nevada No. 14933</b> <b>California No. 35476 Pennsylvania No. 076682</b> <b>Florida No. 73395 Utah No. 7499808-2202</b> <b>Illinois No. 062.062045 Washington No. 49277</b> <b>Indiana No. 60910255</b>  <b>Lance takes continuing educations courses, attends conferences and workshop, and ongoing learning session with the manufacturer representatives to stay informed of new products available for use on our projects.</b>		
	<b>Resume:</b>	<b>Lance A Jones Resume</b>		



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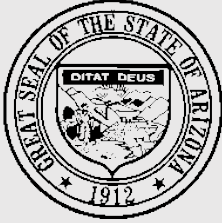
<b>2</b>	<b>Name:</b>	<b>Philip J. Mouw, PE, LEED AP</b>	How long with company?	<b>8x years</b>
	Current position in company:	<b>Vice President / Mechanical Engineer</b>	How long in position?	<b>6 years</b>
	Position for the Services:	<b>Project Manager / Mechanical Engineer</b>	How much of time will be dedicated to the Services?	<b>45 %</b>
	What primary functions will be assigned?	<p>As the Project Manager for the Mechanical Department, Philip will be the prime contact with the client. He will attend meetings, write meeting minutes, provide knowledge and expertise for the design, oversee completion of deliverables, and ensure all studies, reports, specifications, design, and construction and post construction meets all requirements of the client.</p>		
	Describe person's experience in performing services like those that are to be assigned:	<p>Philip has 21 years of experience in heating, ventilation, and air conditioning (HVAC) systems design, clean room design, building automation system evaluation and design, computer simulation of HVAC systems, technical report writing, and life cycle cost analysis.</p>		
	List person's job-related training and education:	<p><u>Education:</u>          Bachelor of Science in Aerospace Engineering, University of Arizona, 1992</p> <p><u>Registrations:</u>          Arizona No. 33490          California No. 34795          Colorado No. 0048497          New Mexico No. 15773</p> <p>Philip takes continuing education courses, attends conferences and workshop, and ongoing learning session with the manufacturer representatives to stay informed of new products available for use on our projects.</p>		
	<b>Resume:</b>	<b>Philip J Mouw Resume</b>		



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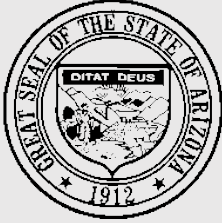
<b>3</b>	<b>Name:</b>	<b>Michael J. Barkley</b>	How long with company?	<b>11 years</b>
	Current position in company:	<b>Vice President</b>	How long in position?	<b>4 years</b>
	Position for the Services:	<b>Mechanical Project Engineer</b>	How much of time will be dedicated to the Services?	<b>40 %</b>
	What primary functions will be assigned?	<p>Mike will be responsible for the production of the mechanical systems, oversees and coordinates activities of the mechanical designers and CADD operators proposed for this project. He will also be responsible to write the technical section of the specifications, see that the project conforms to the standards, codes, and design practices required by the Department Manager.</p>		
	Describe person's experience in performing services like those that are to be assigned:	<p>Mike has 19 years of experience in the engineering design of many HVAC, plumbing and fire protection systems. Mechanical systems include VAV, constant volume, heat pump, DX, chilled water, and associated systems. He has assumed full responsibility for project scoping and preliminary schematics, final design, cost estimates, equipment and systems sizing and selection for institutional, commercial and corporate projects. Mike is also responsible for the design and documentation of the mechanical and plumbing portion of multiple LEED projects.</p>		
	List person's job-related training and education:	<p>Bachelor of Science in Mechanical Design Technology, University of Advancing Computer Technology, 1999</p> <p><u>Registrations:</u> Arizona No. 49138</p> <p>Mike takes continuing education courses, attends conferences and workshop, and ongoing learning session with the manufacturer representatives to stay informed of new products available for use on our projects.</p>		
	<b>Resume:</b>	<b>Michael J Barkley Resume</b>		



**Request for Qualifications**  
 Solicitation No.  
**ADSP017-00006796**  
 Description:  
**2017 Annual Professional Services List**

Arizona Department of  
 Administration  
**State Procurement Office**  
 100 N 15th Ave., Suite 201  
 Phoenix, AZ 85007

<b>4</b>	<b>Name:</b>	<b>Theodore J. (TJ) Saquilayan, PE</b>	How long with company?	<b>4 years</b>
	Current position in company:	<b>Mechanical Engineer</b>	Current position in company:	<b>6 months</b>
	Position for the Services:	<b>Mechanical Engineers/Mechanical Designer</b>	How much of time will be dedicated to the Services?	<b>35%</b>
	What primary functions will be assigned?	TJ will be responsible for following the direction of the Project Engineer, producing drawings and on AutoCAD or Revit, performing calculations, equipment selection and equipment layout.		
	Describe person's experience in performing services like those that are to be assigned:	TJ has experience in designing and modeling various types of mechanical and plumbing systems. As part of the LSW team, he is involved throughout the design and construction process, providing mechanical insight and recommendations. TJ is knowledgeable in mechanical load calculations, building code requirements, energy efficient design, CAD and three-dimensional BIM modeling. He has been an integral part of design teams, working together with architects and contractors to provide owners with mechanically innovative and efficient systems.		
	List person's job-related training and education:	<p><b>Bachelor of Science in Mechanical Engineering, Arizona State University, 2011</b></p> <p><u>Registrations:</u>  <b>Arizona No. 62725</b></p> <p>TJ takes continuing educations courses, attends conferences and workshop, and ongoing learning session with the manufacturer representatives to stay informed of new products available for use on our projects.</p>		
	<b>Resume:</b>	<b>TJ Saquilayan Resume</b>		

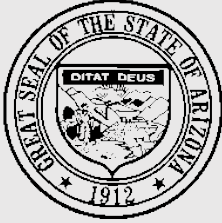


**Request for Qualifications**  
 Solicitation No.  
**ADSP017-00006796**  
 Description:  
**2017 Annual Professional Services List**

Arizona Department of  
 Administration  
**State Procurement Office**  
 100 N 15th Ave., Suite 201  
 Phoenix, AZ 85007

<b>5</b>	<b>Name:</b>	<b>Mark D. Ralston</b>	How long with company?	<b>32 years</b>
	Current position in company:	<b>Vice President</b>	Current position in company:	<b>13</b>
	Position for the Services:	<b>Project Manager/Electrical Engineer</b>	How much of time will be dedicated to the Services?	<b>45%</b>
	What primary functions will be assigned?	<p>As the Project Manager for the Electrical Department, Mark will be the prime contact with the client. He will attend meetings, write meeting minutes, provide knowledge and expertise for the design, oversee completion of deliverables, and ensure all studies, reports, specifications, design, and construction and post construction meets all requirements of the client.</p>		
	Describe person's experience in performing services like those that are to be assigned:	<p>Mark has more than 30 years of experience specializing in lighting, controls, power, sports lighting, and fire alarm design. He designs lighting control systems, which include low voltage lighting relays, address specific dimmable ballasts, occupancy sensors, day light harvesting control, and various interface controls to optimize lighting power use. As a Sustaining Member of the Illuminating Engineering Society of North America (IESNA), Mark has access to the full IESNA Library Design Standards and Guidelines and has designed innovative lighting solutions, using all aspects of current equipment technology.</p>		
	List person's job-related training and education:	<p>Bachelor of Science in Mechanical Engineering, Arizona State University, 2011</p> <p><u>Registrations:</u>          Arizona No. 39543          California No. 19827          Illinois No. 062.059024          New Mexico No. 20083          Nevada No. 21053          Texas No. 102829</p> <p>Mark takes continuing educations courses, attends conferences and workshop, and ongoing learning session with the manufacturer representatives to stay informed of new products available for use on our projects.</p>		
	<b>Resume:</b>	<b>Mark D Ralston Resume</b>		

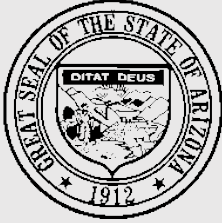




**Request for Qualifications**  
 Solicitation No.  
**ADSP017-00006796**  
 Description:  
**2017 Annual Professional Services List**

Arizona Department of  
 Administration  
**State Procurement Office**  
 100 N 15th Ave., Suite 201  
 Phoenix, AZ 85007

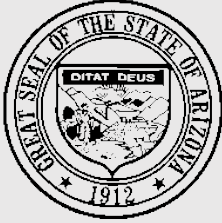
<b>6</b>	<b>Name:</b>	<b>Gerald E. Katafiasz, PE, RCDD</b>	How long with company?	<b>14 years</b>
	Current position in company:	<b>Vice President</b>	Current position in company:	<b>12 years</b>
	Position for the Services:	<b>Electrical Engineer for Technology</b>	How much of time will be dedicated to the Services?	<b>30%</b>
	What primary functions will be assigned?	Gerry will be the lead engineer for the technology design. He will be responsible for the production of the technology systems and oversee the technology team members proposed for this project.		
	Describe person's experience in performing services like those that are to be assigned:	Gerry has over 35 years of experience and specializes in electrical systems design, with proficiency in the telecommunication distribution, fire alarm systems, security and card access systems, surveillance and electrical distribution systems (including medium voltage) systems. His project responsibility includes project management, conceptual budgeting, project design and specifications, and electrical and technology system surveys		
	List person's job-related training and education:	<u>Education:</u> Bachelor of Electronics Engineering Technology, University of Toledo, 1989  <u>Registrations:</u> Arizona No. 37828                      Ohio No. E-64248 California No. 19033                      Pennsylvania No. 076683 Hawaii No. 12299                      Utah No. 7502120-2202 New Mexico No. 17337                      Washington No. 47479 Nevada No. 017132  Gerry takes continuing educations courses, attends conferences and workshop, and ongoing learning session with the manufacturer representatives to stay informed of new products available for use on our projects.		
	<b>Resume:</b>	<b>Gerald E Katafiasz Resume</b>		



**Request for Qualifications**  
 Solicitation No.  
**ADSP017-00006796**  
 Description:  
**2017 Annual Professional Services List**

Arizona Department of  
 Administration  
**State Procurement Office**  
 100 N 15th Ave., Suite 201  
 Phoenix, AZ 85007

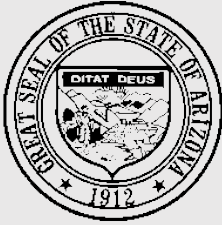
<b>7</b>	<b>Name:</b>	<b>Darrel R. Miller, PE, LEED AP</b>	How long with company?	<b>18 years</b>
	Current position in company:	<b>Vice President</b>	Current position in company:	<b>16 years</b>
	Position for the Services:	<b>Electrical Engineer</b>	How much of time will be dedicated to the Services?	<b>35%</b>
	What primary functions will be assigned?	<p>Darrel will be responsible for the production of the electrical systems, oversees and coordinates activities of the electrical designers and CADD operators proposed for this project. He will also be responsible to write the technical section of the specifications, see that the project conforms to the standards, codes, and design practices required by the Department Manager.</p>		
	Describe person's experience in performing services like those that are to be assigned:	<p>Darrel has a diverse background and is experience in all phases of project development. Areas of expertise include: lighting design, power distribution systems, emergency and stand-by power systems, uninterruptible power systems, electrical interface with medical vendor equipment drawings, medical equipment utility design, computer room design, photovoltaic power systems, short circuit and coordination studies, lightning protection systems, and fire alarm systems.</p>		
	List person's job-related training and education:	<p><u>Education:</u>            Core Engineering Courses at Glendale Community College</p> <p><u>Registrations:</u>            Arizona No. 28774            California No. 18314            Colorado No. 39191            North Carolina No. 23797</p> <p>Darrel takes continuing educations courses, attends conferences and workshop, and ongoing learning session with the manufacturer representatives to stay informed of new products available for use on our projects.</p>		
	<b>Resume:</b>	<b>Darrel R Miller Resume</b>		



**Request for Qualifications**  
 Solicitation No.  
**ADSP017-00006796**  
 Description:  
**2017 Annual Professional Services List**

Arizona Department of  
 Administration  
**State Procurement Office**  
 100 N 15th Ave., Suite 201  
 Phoenix, AZ 85007

<b>8</b>	<b>Name:</b>	<b>Timothy M. McMahon</b>	How long with company?	<b>3 years</b>
	Current position in company:	<b>Field Observer</b>	Current position in company:	<b>3 years</b>
	Position for the Services:	<b>Field Observer</b>	How much of time will be dedicated to the Services?	<b>40%</b>
	What primary functions will be assigned?	<p>Timothy will be the Field Observer during the construction administration phase of the project. He will work closely with the design team, ADOA as well as the construction and design teams to facilitate on-site problem solving to ensure successful project completion.</p>		
	Describe person's experience in performing services like those that are to be assigned:	<p>Timothy's 19 years of experience in construction management, mechanical, plumbing, and electrical code criteria, complemented by his ability to interact with owners, construction and design teams facilitates on-site problem solving to expedite successful project completion. His construction phase activities include field review of installed work, review of submittals and shop drawings, response to requests for information, review of change orders, certification of progress payments, preparation of certificates of substantial completion, and all close-out work.</p>		
	List person's job-related training and education:	<p><u>Education:</u>          Associates of Applied Science, Construction Trades, Sheet Metal, Gateway Community College</p> <p><u>Credentials:</u>          Qualified Commissioning Process Provider (QCxP)</p>		
	<b>Resume:</b>	<b>Timothy M McMahon</b>		



**Request for Qualifications**  
 Solicitation No.  
**ADSP017-00006796**  
 Description:  
**2017 Annual Professional Services List**

Arizona Department of  
 Administration  
**State Procurement Office**  
 100 N 15th Ave., Suite 201  
 Phoenix, AZ 85007

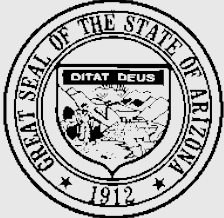
**ATTACHMENT 3-B SUPPLEMENTS:**

(For submission of additional Key Personnel qualifications beyond the number of forms provided in the Offer Documents: Offeror shall copy the Key Personnel Form in its entirety and complete in a separate Word Document for submission with the offer, and list file name below or type "None" on first line if not applicable. Offeror shall title Supplement(s) with the same title as named herein and upload with offer.).

	Title	Document Date	No. of pages	Purpose in Offer
1.	None			
2.				
3.				
4.				
5.				
6.				
7.				

**(NOTE: The Offeror may insert additional rows as required).**

**End of Attachment 3-B**

	<b>Request for Qualifications</b> Solicitation No. <b>ADSP017-00006796</b> Description: <b>2017 Annual Professional Services List</b>	Arizona Department of Administration <b>State Procurement Office</b> 100 N 15th Ave., Suite 201 Phoenix, AZ 85007
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## Attachment 3-E Israel Boycott Form

All materials submitted as part of a response to a solicitation are subject to Arizona public records law and will be disclosed if there is an appropriate public records request at the time of or after the award of the contract. Recently legislation has been enacted to prohibit the state from contracting with companies currently engaged in a boycott of Israel. To ensure compliance with A.R.S. §35-393.01. This form must be completed and returned with the response to the solicitation and any supporting information to assist the State in making its determination of compliance.

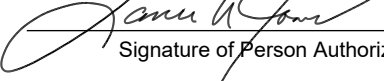
As defined by A.R.S. §35-393.01:

1. "Boycott" means engaging in a refusal to deal, terminating business activities or performing other actions that are intended to limit commercial relations with Israel or with persons or entities doing business in Israel or in territories controlled by Israel, if those actions are taken either:
  - (a) In compliance with or adherence to calls for a boycott of Israel other than those boycotts to which 50 United States Code section 4607(c) applies.
  - (b) In a manner that discriminates on the basis of nationality, national origin or religion and that is not based on a valid business reason.
2. "Company" means a sole proprietorship, organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, limited liability company or other entity or business association, and includes a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate.
3. "Direct holdings" means all publicly traded securities of a company that are held directly by the state treasurer or a retirement system in an actively managed account or fund in which the retirement system owns all shares or interests.
4. "Indirect holdings" means all securities of a company that are held in an account or fund, including a mutual fund, that is managed by one or more persons who are not employed by the state treasurer or a retirement system, if the state treasurer or retirement system owns shares or interests either:
  - (a) together with other investors that are not subject to this section.
  - (b) that are held in an index fund.
5. "Public entity" means this State, a political subdivision of this STATE or an agency, board, commission or department of this state or a political subdivision of this state.
6. "Public fund" means the state treasurer or a retirement system.
7. "Restricted companies" means companies that boycott Israel.
8. "Retirement system" means a retirement plan or system that is established by or pursuant to title 38.

**All offerors must select one of the following:**

- My company **does not** participate in, and agrees not to participate in during the term of the contract a boycott of Israel in accordance with A.R.S. §35-393.01. I understand that my entire response will become public record in accordance with A.A.C. R2-7-C317.
- My company **does** participate in a boycott of Israel as defined by A.R.S. §35-393.01. :

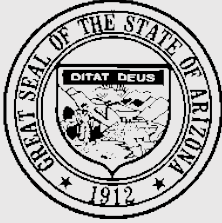
By submitting this response, proposer agrees to indemnify and hold the State, its agents and employees, harmless from any claims or causes of action relating to the State's action based upon reliance on the above representations, including the payment of all costs and attorney fees incurred by the State in defending such an action.

<u>LSW Engineers Arizona, Inc.</u> Company Name	 Signature of Person Authorized to Sign
<u>2333 W. Northern Avenue, Suite 9</u> Address	<u>Lance A. Jones</u> Printed Name
<u>Phoenix</u> <u>AZ</u> <u>85021</u> City                                      State                                      Zip	<u>President</u> Title

**End of Attachment 3-E**

PART 4 of the Solicitation Documents:  
Offer Forms (Attachments)

Date: February 7, 2017  
Page 25 of 36



**Request for Qualifications**  
 Solicitation No.  
**ADSP017-00006796**  
 Description:  
**2017 Annual Professional Services List**

Arizona Department of  
 Administration  
**State Procurement Office**  
 100 N 15th Ave., Suite 201  
 Phoenix, AZ 85007

Attachment 5-A  
**Confidential Information Designation**

All materials submitted as part of a response to a solicitation are subject to Arizona public records law and will be disclosed if there is an appropriate public records request at the time of or after the award of the contract. Recognizing there may be materials included in a solicitation response that are proprietary or a trade secret, a process is set out in A.A.C. R2-7-103 (copy attached) that will allow qualifying materials to be designated as confidential and excluded from disclosure. For purposes of this process the definition of "trade secret" will be the same as that set out in A.A.C. R2-7-101(52).

Complete this form return it with your Offer along with the appropriate supporting information to assist State in making its determination as to whether any of the materials submitted as part of your Offer should be designated confidential because the material is proprietary or a trade secret and therefore not subject to disclosure.

STATE WILL NOT CONSIDER ANY MATERIAL IN YOUR OFFER "CONFIDENTIAL" UNLESS DESIGNATED ON THIS FORM.

**Check one of the following – if neither is checked, State will assume that as equivalent to "DOES NOT":**

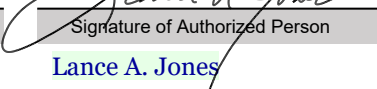
<input checked="" type="radio"/>	This response DOES NOT contain proprietary or trade secret information. I understand that my entire response will become public record in accordance with A.A.C. R2-7-C317.
<input type="radio"/>	This response DOES contain trade secret information because it contains information that: <ol style="list-style-type: none"> <li>1. Is a formula, pattern, compilation, program, device, method, technique or process, AND</li> <li>2. Derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; AND</li> <li>3. Is the subject of efforts by myself or my organization that are reasonable under the circumstances to maintain its secrecy.</li> </ol>

NOTE: Failure to attach an explanation may result in a determination that the information does not meet the statutory trade secret definition. All information that does not meet the definition of trade secret as defined by A.A.C. R2-7-101(52) will become public in accordance with A.A.C. R2-7-C317. State may make its own determination on materials in accordance with A.A.C. R2-7-103.

If State agrees with Offeror's designation of trade secret or confidentiality and the determination is challenged, the undersigned hereby agrees to cooperate and support the defense of the determination with all interested parties, including legal counsel or other necessary assistance.

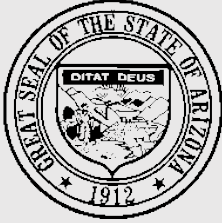
By submitting this response, Offeror agrees that the entire Offer, including confidential, trade secret and proprietary information may be shared with an evaluation committee and technical advisors during the evaluation process. Offeror agrees to indemnify and hold State, its agents and employees, harmless from any claims or causes of action relating to State's withholding of information based upon reliance on the above representations, including the payment of all costs and attorney fees incurred by State in defending such an action.

**LSW Engineers Arizona, Inc.**

Offeror Company Name	
2333 W. Northern Ave. Ste. 9, Phoenix, AZ 85021	Lance A. Jones
Address	Printed Name

PART 4 of the Solicitation Documents:  
 Offer Forms (Attachments)

Date: February 7, 2017  
 Page 27 of 36



**Request for Qualifications**  
 Solicitation No.  
**ADSP017-00006796**  
 Description:  
**2017 Annual Professional Services List**

Arizona Department of  
 Administration  
**State Procurement Office**  
 100 N 15th Ave., Suite 201  
 Phoenix, AZ 85007

Phoenix AZ 85021

President

City State Zip

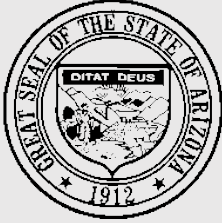
Title

**ATTACHMENT 5-A SUPPLEMENTS:**

(Offeror to insert as required and list here or type "None" on first line. Offeror shall title any Supplement(s) with the same title as named herein and upload with offer.)

	Title	Document Date	No. of pages	Purpose in Offer
1.	None			
2.				
3.				
4.				
5.				
6.				
7.				

**End of Attachment 5-A**



**Request for Qualifications**  
 Solicitation No.  
**ADSP017-00006796**  
 Description:  
**2017 Annual Professional Services List**

Arizona Department of  
 Administration  
**State Procurement Office**  
 100 N 15th Ave., Suite 201  
 Phoenix, AZ 85007

Attachment 5-B  
**Conformance Statements**

STATE WILL NOT CONSIDER ANY EXCEPTIONS UNLESS DESIGNATED ON THIS FORM.

READ THE INSTRUCTIONS TO OFFERORS BEFORE TAKING ANY EXCEPTIONS – TAKING EXCEPTIONS CAN BE  
 GROUNDS FOR STATE REJECTING YOUR OFFER IN EVALUATION.

**CONFORMANCE TO THE INSTRUCTIONS:**  
 (PART 1 OF THE SOLICITATION)

Check one of the following – if neither is checked, State will assume that as equivalent to “YES”:

- YES – Offeror acknowledges that it has read and understands the Solicitation Summary in Section 1-A of the Solicitation Documents and the Instructions to Offerors in Section 1-B of the Solicitation Documents and the and attests that its Offer complies with both.
- NO – Offeror acknowledges that it has read and understands the Solicitation Summary in Section 1-A of the Solicitation Documents and the Instructions to Offerors in Section 1-B of the Solicitation Documents, and attests that its Offer complies with both EXCEPT FOR the exceptions listed in **Attachment 5-B Supplement 1**.

**CONFORMANCE TO THE CONTRACT TERMS AND CONDITIONS:**  
 (PART 2 OF THE SOLICITATION)

Check one of the following – if neither is checked, State will assume that as equivalent to “YES”:

- YES – Offeror acknowledges that it has read and understands the [AIA Documents \(for state agencies only\), and Special Terms and Conditions and the Uniform Terms and Conditions, along with their respective Exhibits and Appendices, in Part 2 of the Solicitation Documents](#) and attests that its Offer complies with both.
- NO – Offeror acknowledges that it has read and understands the [AIA Documents \(for state agencies only\), and Special Terms and Conditions and the Uniform Terms and Conditions, along with their respective Exhibits and Appendices](#) in Part 2 of the Solicitation Documents and attests that its Offer complies with both EXCEPT FOR the exceptions listed in **Attachment 5-B Supplement 2**.

**CONFORMANCE TO THE TECHNICAL DOCUMENTS:**  
 (PART 3 OF THE SOLICITATION)

Check one of the following – if neither is checked, State will assume that as equivalent to “YES”:

- YES – Offeror acknowledges that it has read and understands the [Requirements Document and the Compensation Document](#) in Part 3 of the Solicitation Documents and attests that its Offer complies with both.
- NO – Offeror acknowledges that it has read and understands the [Requirements Document and the Compensation Document](#), in Part 3 of the Solicitation Documents and attests that its Offer complies with both

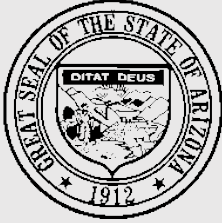
PART 4 of the Solicitation Documents:  
 Offer Forms (Attachments)

Date: February 7, 2017  
 Page 30 of 36



	<p style="text-align: center;"><b>Request for Qualifications</b> Solicitation No. <b>ADSP017-00006796</b> Description: <b>2017 Annual Professional Services List</b></p>	<p style="text-align: center;">Arizona Department of Administration <b>State Procurement Office</b> 100 N 15th Ave., Suite 201 Phoenix, AZ 85007</p>
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EXCEPT FOR the exceptions listed in **Attachment 5-B Supplement 3**.



**Request for Qualifications**  
 Solicitation No.  
**ADSP017-00006796**  
 Description:  
**2017 Annual Professional Services List**

Arizona Department of  
 Administration  
**State Procurement Office**  
 100 N 15th Ave., Suite 201  
 Phoenix, AZ 85007

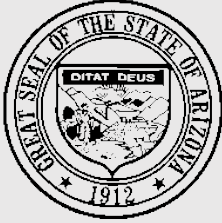
ATTACHMENT 5-B Supplement No. 1:  
**Exceptions to Instructions**

Article / Paragraph or Exhibit Reference	Proposed Changes / Alternate Language	Rationale for Proposed Change
<b>Section 1-A: Solicitation Summary</b>		
	None	
<b>Section 1-B: Instructions to Offerors</b>		
	None	

LSW Engineers Arizona, Inc.

Company Name

Signature of Person Authorized to Sign



**Request for Qualifications**  
 Solicitation No.  
**ADSP017-00006796**  
 Description:  
**2017 Annual Professional Services List**

Arizona Department of  
 Administration  
**State Procurement Office**  
 100 N 15th Ave., Suite 201  
 Phoenix, AZ 85007

ATTACHMENT 5-B Supplement No. 2:  
**Exceptions to Contract Terms & Conditions**

Article/ Paragraph or Exhibit Reference	Proposed Changes / Alternate Language	Rationale for Proposed Change
<b>Section 2-A: Special Terms &amp; Conditions</b>		
	None	
Article/ Paragraph or Appendix Reference	Proposed Changes / Alternate Language	Rationale for Proposed Change
<b>Section 2-B: Uniform Terms &amp; Conditions</b>		
	None	
Article/ Paragraph or Appendix Reference	Proposed Changes / Alternate Language	Rationale for Proposed Change
<b>Section 2-C: AIA Documents with AZ Modifications</b>		
	None	

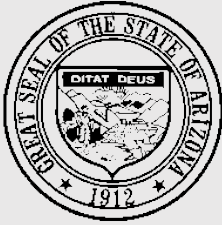
LSW Engineers Arizona, Inc.

Company Name

Signature of Person Authorized to Sign

PART 4 of the Solicitation Documents:  
Offer Forms (Attachments)

Date: February 7, 2017  
Page 33 of 36



**Request for Qualifications**  
 Solicitation No.  
**ADSP017-00006796**  
 Description:  
**2017 Annual Professional Services List**

Arizona Department of  
 Administration  
**State Procurement Office**  
 100 N 15th Ave., Suite 201  
 Phoenix, AZ 85007

ATTACHMENT 5-B Supplement No. 3:  
**Exceptions to Technical and Commercial**

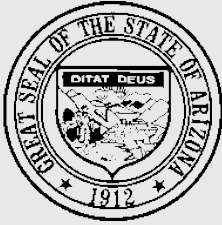
Article / Paragraph or Exhibit Reference	Proposed Changes / Alternate Language	Rationale for Proposed Change
<b>Section 2-A Scope of Work (Requirements Document)</b>		
	None	
<b>Section 2-B: Compensation Document</b>		
	None	

LSW Engineers Arizona, Inc.

Company Name

Signature of Person Authorized to Sign

**End of Attachment 5-B**



**Request for Qualifications**  
 Solicitation No.  
**ADSP017-00006796**  
 Description:  
**2017 Annual Professional Services List**

Arizona Department of  
 Administration  
**State Procurement Office**  
 100 N 15th Ave., Suite 201  
 Phoenix, AZ 85007

**Attachment 5-D  
 Offer Checklist**

STATE MAY DETERMINE YOUR PROPOSAL IS NON-RESPONSIVE IF YOU DO NOT SUBMIT ALL ATTACHMENTS.

	DOCUMENT	SUBMITTED
11.	Attachment 1: Offer and Acceptance Form	<input checked="" type="checkbox"/> YES <input type="checkbox"/> no
12.	Attachment 2-A: Experience and Capacity	<input checked="" type="checkbox"/> YES <input type="checkbox"/> no
13.	Attachment 2-A: References	<input checked="" type="checkbox"/> YES <input type="checkbox"/> no
14.	Attachment 2-B: Organization Profile	<input checked="" type="checkbox"/> YES <input type="checkbox"/> no
15.	Attachment 3-A: Method Proposal – <b>RESERVED FOR AWARD</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> no
16.	Attachment 3-B: Key Personnel Proposal	<input checked="" type="checkbox"/> YES <input type="checkbox"/> no
17.	Attachment 3-C: Proposed Subcontractors – <b>RESERVED FOR AWARD</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> no
18.	Attachment 3-D: Performance Guarantee – <b>RESERVED FOR AWARD</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> no
19.	Attachment 3-E: Israel Boycott Form	<input checked="" type="checkbox"/> YES <input type="checkbox"/> no
20.	Attachment 4: Pricing Sheet – <b>RESERVED FOR AWARD</b>	<input type="checkbox"/> YES, <input checked="" type="checkbox"/> no
21.	Attachment 5-A: Confidential Information Designation	<input checked="" type="checkbox"/> YES <input type="checkbox"/> no
22.	Attachment 5-B: Conformance Statements	<input checked="" type="checkbox"/> YES <input type="checkbox"/> no
23.	Attachment 5-C: Insurance Evidence – <b>RESERVED FOR AWARD</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> no
24.	Attachment 5-D: Offer Checklist	<input checked="" type="checkbox"/> YES <input type="checkbox"/> no
25.	Excel File: Project Experience Number of Projects and Revenue	<input checked="" type="checkbox"/> YES <input type="checkbox"/> no
26.	Excel File: 2017 Professional Services List of Firms Services	<input checked="" type="checkbox"/> YES <input type="checkbox"/> no

**End of Attachment 5-D**

**End of Part 4**

PART 4 of the Solicitation Documents:  
 Offer Forms (Attachments)

Date: February 7, 2017  
 Page 36 of 36



## Darrel R. Miller, PE, LEED AP

Vice President / Electrical Engineer

Darrel has a diverse background and is experienced in all phases of project development. Designs have included lighting and power distribution for schools, office buildings, retail shell buildings, tenant improvements, garages, churches, multi-building site development, detention, medical, and many other project types in new and renovated buildings. Darrel has been managing projects at LSW for 17 years and directs a staff of Electrical Engineers, designers, and CAD/Revit operators in the preparation of technical reports, engineering investigations and concept studies, preliminary and final design, value engineering, cost estimating and sketch preparation, engineering advice/support and observation during construction. Prior to joining LSW, he had been an Electrical Plans Examiner for the City of Raleigh, North Carolina. This experience adds a plan review perspective to document preparation, which enhances the municipal review process.

Areas of expertise include: Lighting design, power distribution systems, emergency and stand-by power systems, uninterruptible power systems, electrical interface with medical vendor equipment drawings, medical equipment utility design, computer room design, photovoltaic power systems, short circuit and coordination studies, lightning protection system design, fire alarm systems, code analysis, 3<sup>rd</sup> party review and reporting, technical writing.

### **Education:**

Core Engineering Courses  
at Glendale Community  
College

### **Registration:**

Arizona No. 28774  
California No. 18314  
Colorado No. 39191  
North Carolina No. 23797

### **Experience:**

With LSW: Since 1998  
With Others: 13 years

### **Certifications:**

International Code  
Council (ICC) Certified  
Electrical Inspector No.  
0874106-20

### **Professional Affiliations:**

- Institute of Electrical  
and Electronics  
Engineers (IEEE)

### **Arizona Game & Fish**

- **Regional Office, Flagstaff, AZ:** Electrical Engineer for a 12,300 remodel and renovations which included the addition of offices, storage space, conference room, and site re-lighting.
- **Wild Life Center, Phoenix, AZ:** Electrical Engineer for a new 2,500 SF veterinary care center, including hospital area, intensive care, x-ray, dark room, office, food prep, food prep storage, restrooms/showers, laundry facility and volunteers lounge.

**Maricopa County ITR and Jail Expansion:** Electrical Engineer for a new single story, 153,600 SF building which will house a 512-bed, 72-hour Inmate Transfer and Release (ITR) facility, along with approximately 1,280-bed medium-security detention facility consisting of 320,000 SF.

**CDCR R.J. Donovan Infill Facility, San Diego, CA:** Electrical Engineer for this new Level II facility which includes three housing units that will provide 792 beds. Additional structures include a Facility Support Services building that will house healthcare services, laundry, canteen and dining areas; Program Support Services building for general visiting, religious programs, classrooms, library, indoor recreation, and administrative area; Family Visiting building, and a Warehouse. The project encompasses approximately 259,000 SF.

**Oren R. Fox, Imperial County, CA:** Electrical Engineer for a new 58,200 SF two-story, medium security adult detention facility which will house and provide treatment and program space for 270 male and female pretrial and sentence inmates. The housing units will consist of six two-tiered 45-bed dormitory style housing units with a double bunk configuration to house 270 inmates in approximately 22,300 SF. A second building consisting of 8,700 SF will be a video visitation center with vocational print shop located outside of the secure perimeter, but on the same site, to allow for public access.

### **City of Surprise, Surprise, AZ**

- Electrical Engineer for the energy analysis of three City buildings, which included the old 57,000 SF City Hall complex, 96,000 SF public safety building, and the waste water treatment plant.
- Electrical Engineer for the evaluation of various photovoltaic systems.
- Electrical Engineer for the connection to the building of the new photovoltaic system.



## Gerald E. Katafiasz, PE, RCDD

Vice President / Electrical Engineer

Gerry specializes in electrical and technology systems design, with proficiency in the following areas: telecommunication distribution, fire alarm systems, security and card access systems, surveillance and electrical distribution (including medium voltage) systems. He also has experience with sound systems, lighting design and electrical system surveys. His project responsibility includes project management, conceptual budgeting, project design and specifications, and electrical and special system surveys.

### Education:

Bachelor of Electronics  
Engineering Technology,  
University of Toledo

### Registration:

Arizona No. 37828  
California No. 19033  
Hawaii No. 12299  
New Mexico No. 17337  
Nevada No. 017132  
Ohio No. E-64248  
Pennsylvania No. 076683  
Utah No. 7502120-2202  
Washington No. 47479

### Experience:

With LSW: Since 2002  
With Others: 21 years

### Professional Affiliations:

- Building Industry Consulting Services International Inc. (BICSI)
- Registered Communication Distribution Designer (RCDD)

### Arizona Department of Administration

- **Executive Tower:** Project Manager for the electrical modifications for the SES replacements requiring multiple electrical service shutdowns throughout the building.
- **Department of Public Health Data Center:** Electrical Engineer for the replacement of two 8-ton HVAC units and one temporary HVAC units. The electrical system was upgraded to provide a secondary power receptacle to each equipment rack for dual coordination equipment.
- **Department of Revenue, Phoenix:** Electrical Engineer for the assessment of the existing 50,000 SF building consisting of three stories with a basement. Scope included review of existing report, plans and documents, field observation review of existing conditions of the facility.
- **Capitol Mall:** Electrical Engineer for the design of fire alarm replacements at 21 state buildings.
- **ADOA Data Center:**
  - o Electrical Engineer for the replacement of the existing Kato light generator.
  - o Electrical Engineer to evaluate the HVAC system and power operations.
- **1510 West Adams Building:** Electrical Engineer for the electrical upgrades to the Telecommunication Program Office (TPO) and Information Services Division (ISD).
- **Land Department Building:** Electrical Engineer for analysis report and the design for the replacement of the Chillers for an approximate 68,000 SF building.

**Arizona School for the Deaf & Blind, Tucson:** Electrical Engineer for the replacement of evaporative cooling system with new package HVAC systems at Ocotillo dormitory (6,141 SF), Palo Verde Dormitory (6,589 SF), and Saguaro Dormitory (4,387 SF).

**Polly Rosenbaum Archives & History Building, Phoenix, AZ:** Electrical Engineer for a 212,755 SF facility which holds the State of Arizona's historical artifacts, legal documents and other items of legal, social and historical significance.

### Phoenix Day School for the Blind

Electrical Engineer to assist in the coordination of the fire alarm between the new high school and the existing campus.

### Arizona State Prison Complex

- **4000-Bed Minimum Security Prisons:**
  - o **Cibola Unit:** Electrical Engineer for the 1,000-bed minimum level custody male w/medium level fence, Yuma.
  - o **La Paz Unit:** Electrical Engineer for the 1,000-bed minimum level custody male w/medium level fence, Yuma.
  - o **San Carlos Unit:** Electrical Engineer for the 1,000-bed minimum level custody female, Perryville.
  - o **Whetstone Unit:** Electrical Engineer for the 1,000-bed minimum level custody male, Tucson.
- **1000-Bed Minimum Security Prisons:**
  - o **Catalina Unit:** Electrical Engineer for the 300-bed low custody male, Tucson.
  - o **Eggers Unit:** Electrical Engineer for the 200-bed low custody male, Douglas.
  - o **Piestawa Unit:** Electrical Engineer for the 200-bed low custody female, Perryville.



## Lance A. Jones, PE

President / Mechanical Engineer

Lance has extensive experience in the analysis and design and layout of HVAC and plumbing systems, and energy analysis of building systems. He directs a staff of mechanical engineers, designers and CAD operators in the preparation of technical reports, engineering investigations and concept studies; preparation of preliminary and final design; preparation of contract drawings and specifications; cost estimating and preparation of sketches; and plan checking activities. Lance serves as President but remains active in project activities.

### Education:

B.S.M.E., Montana State University

### Registration:

Arizona No. 20975  
California No. 35476  
Florida No. 73395  
Illinois No. 062.062045  
Indiana No. 60910255  
Nevada No. 14933  
Pennsylvania No. 076682  
Utah No. 7499808-2202  
Washington No. 49227

### Experience:

With LSW: Since 1993  
With Others: 10 years

### Professional Affiliations:

- American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) – Past President
- American Society of Plumbing Engineers (ASPE)
- Air Conditioning Contractors of America (ACCA)- Past Board Member and Committee Member
- American Council of Engineering Companies (ACEC) – Current Board Member
- AIA Affiliate Member
- Arizona Association of Economic Development

### Arizona State Prison Complex

#### ▪ 4000-Bed Minimum Security Prisons

- **Cibola Unit:** Project Manager for the 1,000-bed minimum level custody male w/medium level fence, Yuma
- **La Paz Unit:** Project Manager for the 1,000-bed minimum level custody male w/medium level fence, Yuma
- **San Carlos Unit:** Project Manager for the 1,000-bed minimum level custody female, Perryville
- **Whetstone Unit:** Project Manager for the 1,000-bed minimum level custody male, Tucson

#### ▪ 1000-Bed Minimum Security Prisons

- **Catalina Unit:** Project Manager for the 300-bed low custody male, Tucson
- **Eggers Unit:** Project Manager for the 200-bed low custody male, Douglas
- **Piestawa Unit:** Project Manager for the 200-bed low custody female, Perryville
- **Santa Rosa Unit:** Project Manager for the 300-bed low custody male, Perryville

#### ▪ ASPC Florence

- **Eyman Rynning Unit:** Project Manager for the replacement of old and deteriorated evaporative cooling units serving the housing units.
- **Eyman SMU 1:** Project Manager for the replacement of the final four existing air handler units.
- **Eyman SMU 1:** Project Manager for the evaluation of hot water consumption, pipe sizing, mixing valves and design of new water softener

#### ▪ ASPC Perryville: Project Manager for the site gas re-pipe at Perryville Prison for the Santa Maria Unit, Lumley Unit, Santa Cruz Unit and San Pedro Unit.

#### ▪ ASPC Tucson, Rincon Unit: Project Manager for the replacement of cooling towers and re-piping of condenser water

**Arizona State Health Laboratory:** Mechanical Engineer for the retro-commissioning/energy audit services. Modifications were implemented in an attempt to reduce utility costs. Duct static pressures were lowered, chilled water temperatures were raised, new dampers and actuators on exhaust fans were installed and redundant exhaust fans were shut down along with reprogramming of the building management system. Occupied and unoccupied temperature schedules were set up in October and in February the chilled water plant was scheduled to be shut down in unoccupied times and when the outside air temperature was below 60 degrees.

**Polly Rosenbaum Archives & History Building, Phoenix, AZ:** Project Manager for a 212,755 SF facility which holds the State of Arizona's historical artifacts, legal documents and other items of legal, social and historical significance.

**John M. Roll United States Courthouse, Yuma, AZ:** Project Manager for a new 57,000 SF building which includes two courtrooms, U.S. Marshalls, holding cells, Clerk of Courts, pre-trial, and probation.

**Pinal County Courts, Florence, AZ:** Project Manager for a new 4-story courts building consisting of 127,000 SF which includes multiple courtrooms, administration offices, inmate holding areas and archives/storage areas.





## Mark D. Ralston, PE, LEED AP

Vice President / Electrical Engineer

Mark specializes in lighting, controls, power, sports lighting, and fire alarm design. He designs lighting control systems, which include low voltage lighting relays, address specific dimmable ballasts, occupancy sensors, day light harvesting control, and various interface controls to optimize lighting power use. As a Sustaining Member of the Illuminating Engineering Society of North America (IESNA), Mark has access to the full IESNA Library Design Standards and Guidelines and has designed innovative lighting solutions, using all aspects of current equipment technology.

### **Education:**

B.S. in Design  
Arizona State University

### **Registration:**

Arizona No. 39543  
California No. 19827  
Illinois No. 062-059024  
New Mexico No. 20083  
Nevada No. 21053  
Texas No. 102829

### **Experience:**

With LSW: Since 1984  
With Others: 0 years

### **Professional**

#### **Affiliations:**

- Illuminating Engineering Society of North America

**GSA San Luis II U.S. Land Port of Entry:** Electrical Engineer for a new 80 acre site with a 12,000 SF main building, 17,000 SF commercial inspection building, primary commercial inspection building with canopy, hazardous materials isolation area with canopy, mobile NII inspection, pedestrian control booths, export control, and commercial inspection booths. **(LEED Gold)**

**Maricopa County Animal Care and Control Facility:** Electrical Engineer for a new approximately 72,000 SF full service facility for animal care and control including administrative offices, general office, public areas, hospital, indoor and outdoor kennels and kennel support areas, training yard, outdoor courts and patios, and parking for the public, employees and service trucks.

**Maricopa County Sheriff's Office / Durango Tent City:** Electrical Engineer for the electrical and lighting upgrades for the "Con-Tents" at the Durango facility.

**City of Phoenix Convention Center, Phase I :** Electrical Engineer for the Phase I renovation consisting of a new four level structure that includes a 46,000 SF Ballroom on the third level, a 21,000 SF Conference Center on level two, 26,000 SF meeting rooms on level one, and a 64,000 SF exhibition hall on the lower level. The Phase 1 meeting facility connects with the existing and expanded convention center via a sky bridge. **(LEED Silver)**

**Sun City Fire Stations 103 and 104:** Electrical Engineer for the renovations to Fire Station 103 consisting of 11,000 SF and renovations for a new temporary Fire Station 104 consisting of a 1,259 SF in the 3,000 SF manufactured building.

#### **City of Scottsdale**

- **Appaloosa Library:** Electrical Engineer for a new single story, 21,242SF building, which includes meeting rooms, cyber cafe and drive-up windows. In addition, there is a large shaded patio with tables and chairs for reading, discussion and a venue for entertainment. Scope included specialty lighting design components within specific area. **(LEED Gold)**
- **Scottsdale Airport:** Electrical Engineer for the replacement and relocation of the existing Service Entrance Section serving the Airport ABC Building.
- **Fire Station No. 602:** Electrical Engineer for the modifications to the existing HVAC system to improve the humidity levels.

#### **City of Tempe**

- **Transportation Center:** Electrical Engineer for the 40,000 SF, 3-story building which houses City offices, transportation control/command center, transit store, retail areas, bike valet, shower/locker spaces, multi-use leased office space and 2,000 SF community room. **(LEED Platinum)**
- **Transportation Center Tenant Improvements:** Electrical Engineer for the partial tenant improvement for three areas on the first floor.
- **Tempe Engineering Building:** Electrical Engineer for the 14,200 SF tenant improvements, which included a 2,500 SF light rail area into a 50 person conference room, waiting area and restrooms, and a 11,000 SF renovation of the engineering area to office on the west wall, open office centralized engineering area and traffic counter.
- **Johnny G. Martinez Water Treatment:** Electrical Engineer for the cooling system redesign for the existing SCADA Center.



## Michael J. Barkley, PE, LEED AP

Vice President / Mechanical Engineer

Mike has experience in the engineering and design of many HVAC systems for higher education, office buildings, and government facilities. His responsibilities include mechanical and plumbing design including equipment and system sizing. Mike is also responsible for the design and documentation of the mechanical and plumbing portion of multiple LEED projects.

### Education:

B.S. in Mechanical Design Technology, University of Advancing Computer Technology

### Registration:

Arizona No. 49138

### Experience:

With LSW: Since 2005  
With Others: 8 years

### Professional Affiliations:

- American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)

### Arizona Department of Administration

- Public Health IT/Computer Room:** Mechanical Engineer for the design for the relocation of the IT/Computer room. The new space consists of approximately 400 SF and has independent HVAC equipment.
- 1200-1275 W. Washington Central Plant:** Field Observer for the replacement of the existing chillers, cooling towers, pumps, controls, refrigerant monitor system within the chiller plant.

**John M Roll U.S. Federal Courthouse, Yuma, AZ:** Mechanical Engineer for the coordination of LEED services for the new 57,000 SF courthouse.

**Chase Field Facility Assessment, Phoenix, AZ:** Mechanical Engineer for the systems assessment at Chase Field home of the Arizona Diamondbacks baseball team. The assessment included a review of the record drawings and thorough field investigation to visually examine each of the 288 chilled water fan coil units, 70 chilled water air handlers, and 98 exhaust fans to determine their condition, remaining useful life, as well as any needed repairs. Cost estimates were prepared for needed repairs as well as equipment replacement.

**CDCR R.J. Donovan Infill Facility, San Diego, CA:** Mechanical Engineer for the LEED coordination for this new Level II facility which includes three housing units that will provide 792 beds. Additional structures include a Facility Support Services building that will house healthcare services, laundry, canteen and dining areas; Program Support Services building for general visiting, religious programs, classrooms, library, indoor recreation, and administrative area; Family Visiting building, and a Warehouse. The project encompasses approximately 259,000 SF.

**City of Scottsdale Appaloosa Library:** Mechanical Engineer for a new 21,200 SF library includes meeting rooms, cyber café and drive-up windows. In addition, there is a large shaded patio with tables and chairs for reading and a venue for entertainment. The entire reading area consists of a raised floor system with power and data distribution incorporated. Hardback reference materials merge with electronic data capabilities throughout the space. Mechanical systems include air cooled chiller with VAV air handler unit and hot water reheat. **(LEED Gold)**

### City of Tempe

- Johnny G. Martinez Water Treatment:** Mechanical Engineer for cooling system redesign for the existing SCADA Center.
- Police/Courts Building:** Mechanical Engineer for the study and replacement of back-up chiller system for the Data Center

**City of Avondale Northwest Public Safety Facility:** Mechanical Engineer for the design and construction administration services for T.I. of shell space for the fire department at the existing facility.

**City of Mesa District Cooling Plant:** Mechanical Engineer for a fourth 950-ton water cooled chiller with associated cooling tower and pumps. As part of the chiller addition, an update to the overall piping infrastructure master plan and provided connection updates was provided.



**Philip J. Mouw, PE, LEED AP**

Vice President / Mechanical Engineer

Philip has extensive experience in heating, ventilation, and air conditioning (HVAC) systems design, clean room design, building automation system evaluation and design, computer simulation of HVAC systems, technical report writing, and life cycle cost analysis. He is knowledgeable in the operation and use of AutoCAD and has experience in the mechanical design of commercial and industrial facilities, telecommunications buildings, water/wastewater treatment facilities, medical facilities, education, hotels/ motels, and indoor pools.

**Education:**

B.S. Aerospace Engineering, University of Arizona

**Registration:**

Arizona No. 33490  
California No. 34795  
Colorado No. 0048497  
New Mexico No. 15773

**Experience:**

With LSW: Since 2008  
With Others: 13 years

**Professional Affiliations:**

- American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)

**Arizona Department of Administration**

- 1200-1275 W. Washington Central Plant Analysis and Upgrades:** Project Manager for the upgrades to the existing central plant which includes replacing existing chillers, cooling tower, pumps, controls, refrigerant monitor system, and other accessories within the chiller plant.
- ASET Data Center:** Mechanical Engineer for the replacement of the cooling equipment in the basement of the building.
- State Lottery Building:** Project Manager for the replacement of the existing Halon fire extinguishing system in the data room with a new FM-200 including replacement of the fire detection and FM-200 control system.

**Arizona State Prison Complex**

- ASPC Florence - Eyman Rynning:** Project Manager for the replacement of old and deteriorated evaporative cooling units with new serving the housing units.
- ASPC Florence – Cell Blocks 1, 3, 4:** Project Manager for the replacement of eight evaporative coolers and two heating/cooling units. Due to the limited project budget, a feasibility study was prepared.

**Central Arizona Project, Phoenix, AZ**

- Server Room:** Mechanical Engineer for the demolition of the existing board room, lobby and halls to convert the space into a 2,000 SF raised data center including new UPS rooms for the consolidation of three different data rooms at the site. The three existing IT equipment rooms were remodeled into office spaces and a new lobby. The new server room accommodates 50 enclosed cabinets and ten 2-post racks with a total room load of 130 kW. Five CRAC units were provided for N+1 redundancy and the existing emergency generator was replaced with a new 750KW generator and yard.
- Multipurpose Room:** Mechanical Engineer for the renovation of existing 12,000 SF cafeteria, commercial kitchen, conference and training rooms into a new 14,000 SF Multipurpose Conference Center that will be used for board meetings.
- ADA Improvements:** Mechanical Engineer for the ADA upgrades including restrooms, ramps and automatic door opening at both Building 1 and Building 2.
- Pumping Station Elevator Modernization:** Mechanical Engineer in modernizing the elevator control equipment in five pumping stations throughout the state. Modernization included replacing control cabinets and providing independent cooling for each machine room.

**City of Mesa | Mesa Plaza Building , Mesa, AZ:** Mechanical Engineer for the coordination for the preliminary design of the chilled water connection between the roof-mounted chiller plant on the City's Plaza Building and the district chilled water loop. Project included design of a screening system to conceal the new piping on the exterior of the building. Design completed in 2010.

**City of Chandler | Data Room Remodel:** Mechanical Engineer for a 350 SF expansion of the existing 500 SF data center.



**Timothy M. McMahon, QCxP**  
**Field Observer**

Tim has experience in engineering and construction project management. He brings an extensive background in construction management and multiple engineering disciplines. Tim's background in construction management, mechanical, plumbing, and electrical code criteria, complemented by his ability to interact with owners, architects, contractors, and other engineers, facilitates on-site problem solving to expedite the successful completion of each project. His construction phase activities encompass a full range of services including: field review of installed work, review of submittals and shop drawings, response to requests for information, review of change orders, certification of progress payments, preparation of certificates of substantial completion, and all close-out work. Tim has been involved in construction observation for government, justice, Native American, commercial, aviation, healthcare, religious, education, and senior living facilities. Tim has provided field observations for the following projects:

**Education:**

Gateway Community College, Associates of Applied Science, construction trades, sheet metal

**Experience:**

With LSW: Since 2013  
With Others: 10 years

**Credentials:**

- Qualified Commissioning Process Provider (QCxP)

**Arizona Department of Administration, Phoenix, AZ**

- **Executive Tower:** Field Observer for the electrical modifications for the SES replacements requiring multiple electrical service shutdowns throughout the building.
- **Capitol Mall Fire Alarm Replacements:** Field Observer for fire alarm replacements at the following buildings: Hall of Fame Museum, 9,925 SF; Department of Corrections, 20,327 SF; Records Storage building, 51,778 SF; Capitol Museum, 49,760 SF; Capitol Archives, 18,600 SF; Capitol Justice, 53,600 SF; House of Representatives, 80,160 SF; Senate Building, 80,160 SF.
- **Arizona Historical Society:** Field Observer for a new addressable fire alarm system. Total square footage is estimated to be 82,000 SF.
- **1200-1275 W. Washington Central Plant:** Field Observer for the replacement of the existing chillers, cooling towers, pumps, controls, refrigerant monitor system within the chiller plant.

**Arizona Department of Administration | DPS and CI Buildings, Tucson, AZ:** Field Observer for the fire alarm upgrades for the existing DPS and Criminal Investigation building.

**Arizona School for the Deaf and Blinds, Tucson, AZ**

- **Fire Alarm Replacement:** Field Observer during construction for a new addressable fire alarm system for the following buildings: Manzanita Dorm, 7,156 SF; High School, 21,090 SF; Elementary School, 22,210; Administration, 4,466 SF and Administration Annex, 3,051 SF.
- **Fire Alarm Replacement:** Field Observer during construction for the fire alarm replacement of four buildings which includes Ocotillo, Navajo, Pima, and Apache residence building. The design includes new control panels, conduit systems, new wiring, new area detection, HVAC shut down, monitoring of existing fire sprinkler systems and new audio/visual devices to comply with applicable codes. The approximate area is 40,933 SF.
- **Fire Alarm Replacement:** Field Observer during construction for a new fire alarm system for two buildings on the ASDB Tucson campus: Maricopa and Palo Verde residence buildings. The design includes new control panels, conduit systems, new wiring, new area detection, HVAC shut down, monitoring of existing fire sprinkler systems and new audio/visual devices to comply with applicable codes. The approximate area is 16,933 SF.
- **Dormitory Renovation:** Field Observer during construction for the toilet room renovations and adding acoustical lay-in ceiling throughout each building.

**ASPC Yuma Cheyenne Unit:** Field Observer for the systems and infrastructure to remediate damage done to the Laundry and Kitchen buildings from waterflow from the evaporative cooling units and resultant demolition by staff.



## Theodore J. (TJ) Saquilayan, PE

Mechanical Engineer

TJ has experience in designing and modeling various types of mechanical and plumbing systems. As part of the LSW team, he is involved throughout the design and construction process, providing mechanical insight and recommendations. TJ is knowledgeable in mechanical load calculations, building code requirements, energy efficient design, CAD and three-dimensional BIM modeling. He has been an integral part of design teams, working together with architects and contractors to provide owners with mechanically innovative and efficient systems. TJ has worked on mechanical and plumbing design for commercial, industrial, educational, medical, data center and mission critical facilities.

### **Education:**

B.S. in Mechanical Engineering, Arizona State University

### **Registration:**

Arizona No. 62725

### **Experience:**

With LSW: Since 2012  
With Others: 0 years

### **Professional Affiliations:**

- American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)
- Young Engineers in ASHRAE (YEA)
- American Society of Mechanical Engineers (ASME)
- American Society of Plumbing Engineers (ASPE)

### **Arizona Department of Administration**

- **Central Plant Analysis and Upgrades:** Mechanical Designer for the upgrades to the existing central plant which includes replacing existing chillers, cooling tower, pumps, controls, refrigerant monitor system, and other accessories within the chiller plant.
- **ASET Data Center:** Mechanical Engineer for the replacement of the cooling equipment in the basement of the building.
- **Arizona Pioneers Nursing Home, Prescott, AZ:** Mechanical Designer for a new above-ground, 250 gallon, diesel-fuel storage tank, a new 50 gallon day tank with spill containment and integral fuel transfer pump, a new leak detection systems for both tanks, and new fuel piping between the tanks and generator.

### **Central Arizona Project, Phoenix, AZ**

- **Server Room:** Mechanical Designer for the demolition of the existing board room, lobby and halls to convert the space into a 2,000 SF raised data center including new UPS rooms for the consolidation of three different data rooms at the site. The three existing IT equipment rooms were remodeled into office spaces and a new lobby. The new server room accommodates 50 enclosed cabinets and ten 2-post racks with a total room load of 130 kW. Five CRAC units were provided for N+1 redundancy and the existing emergency generator was replaced with a new 750KW generator and yard.
- **Multipurpose Room:** Mechanical Designer for the renovation of existing 12,000 SF cafeteria, commercial kitchen, conference and training rooms into a new 14,000 SF Multipurpose Conference Center that will also be used for board room meetings.
- **ADA Improvements:** Mechanical Designer for the ADA upgrades including restrooms, ramps and automatic door opening at both building one and building two.
- **Pumping Station Elevator Modernization:** Mechanical Designer in modernizing the elevator control equipment in five pumping stations throughout the state. Modernization included replacing control cabinets and providing independent cooling for each machine room.

### **City of Glendale, Glendale, AZ**

- **Glendale Landfill Expansion:** Mechanical Designer for the expansion of the City of Glendale Landfill which includes three new building; an 850 SF scale house, 3,600 SF administration buildings, and a 3,600 SF maintenance building.
- **City Hall HVAC Replacement:** Mechanical Designer for the replacement of the HVAC equipment at the City Hall and Council Chambers which involves the first through fourth floors of the 60,000 SF City Hall and adjacent 25,000 SF Council Chambers building.
- **Equipment Management Building:** Mechanical Engineer for the replacement of seven roof-mounted evaporative cooler/heating units at the facility. This project tracks with the HVAC replacement project at the City Hall and Council Chamber building.