

**RFQ# ADSPO14-00003465, Annual Request for Qualifications and Experience
REVISED - Attachment I – General Qualifications**

(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:	Stantec Consulting Services Inc.
b.	FIRM (OR BRANCH OFFICE) STREET:	8211 South 48th Street
c.	FIRM (OR BRANCH OFFICE) CITY:	Phoenix
d.	FIRM (OR BRANCH OFFICE) STATE:	Arizona
e.	FIRM (OR BRANCH OFFICE) ZIP CODE:	85044
f.	YEAR ESTABLISHED:	1991
(g1).	OWNERSHIP - TYPE:	Public
(g2).	OWNERSHIP - SMALL BUSINESS STATUS:	N/A
h.	POINT OF CONTACT NAME AND TITLE:	Scot Schlund
i.	POINT OF CONTACT TELEPHONE NUMBER:	(602) 707-4620
j.	POINT OF CONTACT E-MAIL ADDRESS:	scot.schlund@stantec.com
k.	NAME OF FIRM <i>(If block 1a is a branch office):</i>	Stantec Inc.

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2. EMPLOYEES BY DISCIPLINE

a. Discipline Title	b. Function: Primary (P) or Secondary (S)	c. No. of Employees - Firm	d. No. of Employees - Branch
Architect	P	236	4
Chemical Engineer	P	38	1
Civil Engineer	P	732	10
Construction Inspector	P	34	4
Electrical Engineer	P	453	7
Geologist	P	186	2
Land Surveyor	P	425	5
Landscape Architect	P	176	1
Mining Engineer	P	77	2
Sanitary Engineer	P	300	18
Structural Engineer	P	423	2
Technical Analyst	P	2,000	12
Other	P		101
Total		13,600	169

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a.	FIRM (OR BRANCH OFFICE) NAME:	Stantec Consulting Services Inc.
b.	FIRM (OR BRANCH OFFICE) STREET:	1438 West Broadway Road, #101
c.	FIRM (OR BRANCH OFFICE) CITY:	Tempe
d.	FIRM (OR BRANCH OFFICE) STATE:	Arizona
e.	FIRM (OR BRANCH OFFICE) ZIP CODE:	85282
f.	YEAR ESTABLISHED:	2008
(g1).	OWNERSHIP - TYPE:	Public
(g2).	OWNERSHIP - SMALL BUSINESS STATUS:	N/A
h.	POINT OF CONTACT NAME AND TITLE:	Walt Cooper
i.	POINT OF CONTACT TELEPHONE NUMBER:	(480) 831-0310
j.	POINT OF CONTACT E-MAIL ADDRESS:	walt.cooper@stantec.com
k.	NAME OF FIRM <i>(If block 1a is a branch office):</i>	Stantec Inc.

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1. REVISED ADSPO13-00003465: Annual Request for Qualifications

a.	FIRM (OR BRANCH OFFICE) NAME:	Stantec Consulting Services Inc.
b.	FIRM (OR BRANCH OFFICE) STREET:	5151 E Broadway Blvd Suite 400
c.	FIRM (OR BRANCH OFFICE) CITY:	Tucson
d.	FIRM (OR BRANCH OFFICE) STATE:	Arizona
e.	FIRM (OR BRANCH OFFICE) ZIP CODE:	85711
f.	YEAR ESTABLISHED:	1999
(g1).	OWNERSHIP - TYPE:	Public
(g2).	OWNERSHIP - SMALL BUSINESS STATUS:	N/A
h.	POINT OF CONTACT NAME AND TITLE:	Corey Thompson
i.	POINT OF CONTACT TELEPHONE NUMBER:	(520) 750-7474
j.	POINT OF CONTACT E-MAIL ADDRESS:	corey.thompson@stantec.com
k.	NAME OF FIRM <i>(If block 1a is a branch office):</i>	Stantec Inc.

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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)
28	Airports; Terminals and Hangars	6
3	Construction Management	2
5	Dams (Earth; Rock); Dikes; Levees	3
15	Electrical Studies and Design	3
87	Environmental Remediation	4
67	Highways; Streets	6
40	Irrigation; Drainage	4
7	Landscape Architecture	2
8	Railroad; Rapid Transit	4
94	Rivers; Canals; Waterways; Flood Control	7
16	Sewage Collection, Treatment and Disposal	3
19	Surveying; Platting; Mapping	1
5	Traffic and Transportation Engineering	1
19	Water Supply; Treatment and Distribution	3
54	Mining & Mineralogy	9

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

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

Information represents combined projects and revenue from Stantec's Arizona offices (Phoenix, Tempe, Tucson).

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

a. NAME Scot Schlund, PE		b. ROLE IN THIS CONTRACT Principal-in-Charge		c. YEARS EXPERIENCE	
				1. TOTAL 25	2. WITH CURRENT FIRM 16
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION)			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
<ul style="list-style-type: none"> MS, Watershed Management/Surface Water Hydrology, University of Arizona, Tucson, Arizona, 1982 BS, Natural Resources Management and Planning, University of Michigan, Ann Arbor, Michigan, 1978 			<ul style="list-style-type: none"> Professional Engineer #9262, State of Nevada Professional Engineer #22910, State of Arizona 		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
<ul style="list-style-type: none"> 2006 WESTMARC Best of the West Awards Honor Award, El Rio Watercourse Master Plan & Area Drainage Master Plan 2006 Valley Forward Environmental Excellence Awards Crescordia Award, El Rio Watercourse Master Plan & Area Drainage Master Plan 2006 Arizona Planning Association's State Planning Awards Best Regional Plan, El Rio Watercourse Master Plan & Area Drainage 					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) El Rio Watercourse Master Plan and Area Drainage Master Plan; Maricopa County, Arizona	(2) Year Completed	
		Professional Services 2004	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Watercourse and Area Drainage Master Plans for 18 miles of the Gila River in Maricopa County. Provided sustainable flood management solutions that conserve the natural environment and accommodate future growth along 18 miles of the Gila River.		
2)	(1) TITLE AND LOCATION (City and State) 75th Avenue Storm Drain - Salt River to Papago Freeway; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2004	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Responsible for overseeing the storm drain design based on the 75th Avenue Design Concept Report. Other responsibilities included contracting, resource management, project meetings, and project coordination to ensure client satisfaction. The design analysis resulted in upgrading the storm drain to carry a 10-year flood event plus discharge from the DRCC basin to the Salt River.		
3)	(1) TITLE AND LOCATION (City and State) Central Phoenix/East Valley Light Rail Transit Project - Line Section 3; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2002 - 2005	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Supervised the drainage design for Line Segment 3, which included approximately eight miles of track (double) through central Phoenix. Designs were prepared for review by the City of Phoenix in accordance with their requirements for the 2-year and 100-year flood conditions. Used a unique "flow-through" guideway curb to keep stormwater from flooding adjacent properties.		
4)	(1) TITLE AND LOCATION (City and State) Upper New River Area Drainage Master Plan; Maricopa County, Arizona	(2) Year Completed	
		Professional Services 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Area Drainage Master Plan (ADMP) for 169 square miles of the Upper New River area, which is located in the Cities of Phoenix and Peoria and unincorporated Maricopa County, Arizona.		
5)	(1) TITLE AND LOCATION (City and State) Gillespie Area Drainage Master Study; Maricopa County, Arizona	(2) Year Completed	
		Professional Services 2010 - 2012	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Principal-in-Charge for the study of this 148-square-mile area southwest of Phoenix. The effort identified and mitigated flood hazards through analysis and development guidelines. The watershed contains a sizeable amount of agricultural land, key infrastructure, and public facilities, as well as portions of the Sonoran Desert National Monument.		

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

a. NAME Annette Zacherson, RA, NCARB, AIA, LEED® AP BD+C		b. ROLE IN THIS CONTRACT Architect		c. YEARS EXPERIENCE	
				1. TOTAL 23	2. WITH CURRENT FIRM 5
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION)			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
<ul style="list-style-type: none"> London Design and Research Study, University of Nebraska, Lincoln, Nebraska, 1990 Bachelor of Science, University of Nebraska, Lincoln, Nebraska, 1990 			<ul style="list-style-type: none"> Registered Architect #46053, State of Arizona LEED® Accredited Professional #1018154, U.S. Green Building Council 		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
<ul style="list-style-type: none"> Member, Preservation Association of Lincoln Member, National Council of Architectural Registration Boards Member, American Institute of Architects 					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Safari Green School House ; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE As part of the Green School House team, Annette’s responsibilities as project manager included participating in the design of the building, putting together construction documents, coordinating the LEED® requirements, and overseeing construction administrative duties, as well as coordination with the suppliers of donated materials..		<input checked="" type="checkbox"/> Check if project performed with current firm
2)	(1) TITLE AND LOCATION (City and State) Education Management Corporation (EDMC) - Brown Mackie College, Phases I,II,III ; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2008 - 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE As architect of record and project architect, Annette’s responsibilities for all three phases included coordination of construction documents with the owner and consultants, permitting submittal and responses, construction administration, requests for information (RFIs), submittals, construction punch lists, and project close out.		<input checked="" type="checkbox"/> Check if project performed with current firm
3)	(1) TITLE AND LOCATION (City and State) Maricopa County On-Call Three Year Contract ; Maricopa County, Arizona	(2) Year Completed	
		Professional Services 2010 - 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE As project manager, Annette provided a variety architectural services on an on-call basis for the County of Maricopa.		<input checked="" type="checkbox"/> Check if project performed with current firm
4)	(1) TITLE AND LOCATION (City and State) Luke Air Force Base - Bridging Documents, Buildings 431 and 983/985 ; Glendale, Arizona	(2) Year Completed	
		Professional Services 2011 - 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE A key member of the Stantec architectural team, Annette was responsible for design development and the production of the construction documents for the design build bidding of buildings 431 and 983/985.		<input checked="" type="checkbox"/> Check if project performed with current firm
5)	(1) TITLE AND LOCATION (City and State) ADOT Truck Weigh and Credential Processing Facility, Mariposa Land Port of Entry ; Nogales, Arizona	(2) Year Completed	
		Professional Services 2010 - 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Provided architectural design and support services, as well as oversaw sustainable design/LEED® elements of the facility. Although the final facility is not LEED® certified, it was designed to meet LEED® Silver standards with 10% alternative energy consumption.		<input checked="" type="checkbox"/> Check if project performed with current firm

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

a. NAME Brian McClure, RA, CSI, CDT		b. ROLE IN THIS CONTRACT Architect		c. YEARS EXPERIENCE	
				1. TOTAL 26	2. WITH CURRENT FIRM 2
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION)			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
<ul style="list-style-type: none"> Architectural Accessibility, Gateway Community College, Phoenix, Arizona, 1992 Computer Aided Drafting & Design, Phoenix Institute of Technology, Phoenix, Arizona, 1987 Architectural Drafting and Design, Phoenix Institute of Technology, Phoenix, Arizona, 1986 			<ul style="list-style-type: none"> Registered Architect #48002, State of Arizona 		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
<ul style="list-style-type: none"> Phoenix Chapter President, Construction Specifications Institute Certified Construction Documents Technologist, Construction Specifications Institute Member, Construction Specifications Institute 					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State)	(2) Year Completed	
	Pinnacle High School ; Paradise Valley, Arizona	Professional Services 1999	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm		
Provided working drawings for two, 2-story academic buildings, totaling 142,000 square feet and all architectural site plans and details for the 65-acre site.			
2)	(1) TITLE AND LOCATION (City and State)	(2) Year Completed	
	Apollo Group (University of Phoenix) Data Center Expansions ; Phoenix, Arizona	Professional Services 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm		
Served as the lead Architect for the design of their secondary data center, as well as the expansion of the primary data center. The Primary data center expansion doubled the raised floor area of the facility, increased efficiencies while connecting it the existing facility, and providing totally separate support facilities for the expansion.			
3)	(1) TITLE AND LOCATION (City and State)	(2) Year Completed	
	Basha High School ; Chandler, Arizona	Professional Services 2003	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm		
Oversaw the completion of Contract Documents for the eight building campus, totaling 290,000 square feet. Contract documents were completed in a 7-month period with minimal staff. This was one of the first CM-at-Risk projects approved by the Arizona Schools Facility Board			
4)	(1) TITLE AND LOCATION (City and State)	(2) Year Completed	
	Port of Entry ; Evanston, Wyoming	Professional Services 1991	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm		
Completed the design for a new state port of entry facility, including an enclosed inspection area, scales, and office area.			
5)	(1) TITLE AND LOCATION (City and State)	(2) Year Completed	
	Arizona Public Service ; Arizona	Professional Services 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
Provided ongoing facilities architecture, studies and reports for numerous facilities throughout Arizona. Work included assessments and renovations at Palo Verde NGS, APS Corporate Headquarters, their other primary support facilities in Phoenix. Design of new LEED® certified service centers.			

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

a. NAME Paul Mullins, RA		b. ROLE IN THIS CONTRACT Architect		c. YEARS EXPERIENCE	
				1. TOTAL 15	2. WITH CURRENT FIRM 14
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION) • BA, Architecture, Arizona State University, Tempe, Arizona, 1979			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) • Registered Architect #14362, State of Arizona • Registered Architect #C21642, State of California		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) ADOT Truck Weigh and Credential Processing Facility; Mariposa Land Port of Entry, Nogales, Arizona	(2) Year Completed	
		Professional Services 2010 - 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Led architectural design and support services, as well as oversaw sustainable design/LEED® elements of the facility. Although the final facility is not LEED® certified, it was designed to meet LEED® Silver standards with 10% alternative energy consumption.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
2)	(1) TITLE AND LOCATION (City and State) Nogales International Wastewater Treatment Plant; Nogales, Arizona	(2) Year Completed	
		Professional Services 2007 - 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Provided construction administration services as part of the design-build team for the facility's 14.74 MGD, \$56 million expansion. The design was completed in phases to accommodate a two-stage construction sequence allowing PCL to build the clarifiers and aeration basins under ideal groundwater conditions reducing dewatering requirements with significant construction cost savings.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
3)	(1) TITLE AND LOCATION (City and State) Laughlin-Bullhead International Airport Aircraft Rescue & Fire Fighting Building; Bullhead City, Arizona	(2) Year Completed	
		Professional Services 2011 - 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager for a 14,000 square-foot fire station on the secured Airside of the airport. The design incorporated LEED® design guidelines and practices.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
4)	(1) TITLE AND LOCATION (City and State) White Tanks Transfer Station for Waste Management; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2003 - 2005	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Mr. Mullins provided architectural design services as part of the Stantec design team for the 30,000 ft solid waste transfer building.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
5)	(1) TITLE AND LOCATION (City and State) Meteor Crater Rest Area; Meteor Crater, Arizona	(2) Year Completed	
		Professional Services 2008 - 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Architect for the redesign of the new \$7 million rest area for the Arizona Department of Transportation.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		

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

a. NAME Maria Brady, PE	b. ROLE IN THIS CONTRACT Water/Wastewater	c. YEARS EXPERIENCE	
		1. TOTAL 28	2. WITH CURRENT FIRM 28
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)			
e. EDUCATION (DEGREE AND SPECIALIZATION)		f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
<ul style="list-style-type: none"> BS, Agricultural Engineering, Washington State University, Pullman, Washington, 1982 MS, Agricultural Engineering, Colorado State University, Fort Collins, Colorado, 1984 		<ul style="list-style-type: none"> Professional Engineer #29313 - Civil, State of Arizona Professional Engineer #22841 - Agricultural, State of Arizona 	
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			
<ul style="list-style-type: none"> Member, Society of American Military Engineers, Phoenix Post Member, Water Environment Federation Member, AZ Water Association 			

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Nogales International Wastewater Treatment Plant; Nogales, Arizona	(2) Year Completed	
		Professional Services 2007 - 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Design and construction services for a new 14.74 MGD upgrade of the Nogales International Wastewater Treatment Plant. The facility design was completed in a compressed six month schedule with close coordination between designers and contractor in order to meet the City's fixed "not to exceed" \$53 million project budget.		
2)	(1) TITLE AND LOCATION (City and State) Ocotillo Road Water Mains; Gilbert, Arizona	(2) Year Completed	
		Professional Services 2007 - 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm The project includes a City of Chandler 4-mile, 36-inch water main from Higley Road to Gilbert Road; a 1-mile, 24-inch water main from Higley Road to Greenfield Road; and a 1-mile, 16-inch water main from Greenfield Road to Val Vista Drive. Objectives of the project include designing the alignment of waterlines to match existing stub-outs and ensuring proper pipe alignment to avoid conflicts when future road reconstruction occurs.		
3)	(1) TITLE AND LOCATION (City and State) Avenue B&C Colonia Wastewater Collection System; Yuma, Arizona	(2) Year Completed	
		Professional Services 2009 - 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed plans and specifications for the installation of approximately 8.5 miles of sewer collection system in an area of Yuma County bounded by Avenues B and C and 1st and 8th Streets. The installation of the sewer collection system included on-site connections of over 600 residential properties.		
4)	(1) TITLE AND LOCATION (City and State) Central Arizona Project Pipeline to San Tan Vista Water Treatment Plant; Gilbert, Arizona	(2) Year Completed	
		Professional Services 2006 - 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Design-build project for approximately 14 miles of 48-inch raw water pipeline connecting the CAP Canal with about 200 feet of elevation drop to the Town of Gilbert South Water Treatment Plant.		
5)	(1) TITLE AND LOCATION (City and State) Luke Air Force Base On-Call Engineering Services (Wastewater, Water, Stormwater, Planning); Glendale, Arizona	(2) Year Completed	
		Professional Services 1998 - Ongoing	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Maria has led design efforts for Luke AFB since 1988 through on-call contracts. Projects have included Luke AFB Sewer Study, Luke AFB Water Study, Luke AFB 400 and 900 Area Chill Facilities Design, and Luke AFB Water Storage Tank and Arsenic Treatment System.		

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

a. NAME John Take, PE	b. ROLE IN THIS CONTRACT Water/Wastewater	c. YEARS EXPERIENCE	
		1. TOTAL 22	2. WITH CURRENT FIRM 19
d. FIRM NAME AND LOCATION (City and State) Stantec (Tucson, Arizona)			
e. EDUCATION (DEGREE AND SPECIALIZATION)		f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
<ul style="list-style-type: none"> M.Eng., Civil Engineering (Water Resources), University of Alberta, Edmonton, Alberta, 1996 B.Sc.Eng., Civil Engineering, University of New Brunswick, Fredericton, New Brunswick, 1992 		<ul style="list-style-type: none"> Professional Engineer #52192, State of Arizona Envision Sustainability Professional (ENV SP), Institute for Sustainable Infrastructure Professional Engineer #M66565, Association of Professional Engineers and Geoscientists of Alberta 	
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			
<ul style="list-style-type: none"> Member, International Water Association Member, Water Environment Federation Member, Association of Professional Engineers and Geoscientists of Alberta 			

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Permanent Canal Closures and Pumps Project; New Orleans, Louisiana	(2) Year Completed	
		Professional Services 2013 - 2016	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE A \$614 million design-build project to help protect the City of New Orleans from storm surges from Lake Pontchartrain. The pumps have a combined capacity of 24,200 cubic feet per second. Pumping is accomplished with 24, 2.6 megawatt generators backed up by six redundant units for a total of 78 megawatts across all three sites.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
2)	(1) TITLE AND LOCATION (City and State) Southwest Infrastructure Plan, Phase I and II; Pima County, Arizona	(2) Year Completed	
		Professional Services 2007 - 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Assisted with the development of a comprehensive infrastructure servicing plan and costing analysis for this key targeted growth area in Pima County.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
3)	(1) TITLE AND LOCATION (City and State) Neighborhood Water Harvesting Guideline Manual; Pima County, Arizona	(2) Year Completed	
		Professional Services 2012	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE John Take participated in the development of the Neighborhood Water Harvesting Guideline Manual, providing consulting services to the PCRFC and the City of Tucson. In addition, we are participating on the Tucson Roadway Green Infrastructure Policy Committee, which is developing a draft Road/Street Water Harvesting Ordinance per Mayor and Council direction.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
4)	(1) TITLE AND LOCATION (City and State) Green Valley Water District Master Plan; Green Valley, Arizona	(2) Year Completed	
		Professional Services 2004	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Supported comprehensive water supply and distribution master plan addressing system capacity constraints and future growth.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
5)	(1) TITLE AND LOCATION (City and State) City of Somerton Wastewater Master Plan; Somerton, Arizona	(2) Year Completed	
		Professional Services 2005 - 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Supported delivery of wastewater master plan addressing system capacity constraints and future growth.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		

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

a. NAME John Wise, PE, CFM		b. ROLE IN THIS CONTRACT Drainage		c. YEARS EXPERIENCE	
				1. TOTAL 36	2. WITH CURRENT FIRM 29
d. FIRM NAME AND LOCATION (City and State) Stantec (Tucson, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION)			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
<ul style="list-style-type: none"> MS, Civil Engineering, University of Michigan, Ann Arbor, Michigan, 1977 BS, Environmental Science Engineering, University of Michigan, Ann Arbor, Michigan, 1976 			<ul style="list-style-type: none"> Certified Floodplain Manager #US-09-04299, Association of State Floodplain Managers Professional Engineer #10109, State of New Mexico Professional Engineer #8566, State of Nevada Professional Engineer #16738, State of Arizona 		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
<ul style="list-style-type: none"> Member, Southern Arizona Architects and Engineers Marketing Association Member, Tucson Stormwater Advisory Committee Member, Arizona Floodplain Management Association 					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Downtown Tucson Infrastructure Improvements; Tucson, Arizona	(2) Year Completed	
		Professional Services 2008	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Mr. Wise is the Task Leader for the drainage improvements, which includes assessment of existing hydrologic conditions, storm drain and street capacity, and recommendations for upgrades to the existing drainage system to collect and convey the 10-year storm event.			
2)	(1) TITLE AND LOCATION (City and State) Expansion and Modernization of the Mariposa Land Port of Entry; Nogales, Arizona	(2) Year Completed	
		Professional Services 2010 - Ongoing	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Provided drainage design for the expansion of the Mariposa Land Port of Entry, the largest commercial border crossing in Arizona. Drainage design for the 55 acre site included hydrologic and hydraulic analyses, on-site storm drain and extension of cross-drainage culverts, including an existing culvert at the Ephraim Wash.			
3)	(1) TITLE AND LOCATION (City and State) ROMP Water and Energy Sustainability Center; Tucson, Arizona	(2) Year Completed	
		Professional Services 2011 - 2012	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Mr. Wise led hydrology efforts for the design of the Pima County Regional Wastewater Reclamation Department's Water and Energy Sustainability Center. The Drainage Master Plan for the project site included HEC-RAS modeling of a proposed man-made channel discharging through the existing Santa Cruz levee.			
4)	(1) TITLE AND LOCATION (City and State) Lee Moore Wash Basin Management Study; Tucson, Arizona	(2) Year Completed	
		Professional Services 2005 - 2008	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Provide a comprehensive flood control protection program and floodplain management protocol HEC-1/HMS, HEC-2/RAS, and FLO-2D modeling were employed for the study.			
5)	(1) TITLE AND LOCATION (City and State) Brawley Wash Watershed Hydrologic/ Hydraulic Evaluation; Tucson, Arizona	(2) Year Completed	
		Professional Services 20012	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Conducted an HEC-HMS model evaluation of the Brawley wash watershed to serve as the basis for floodplain mapping of areas downstream/north of Ajo Way. FLO-2D modeling was accomplished to provide a cursory understanding of hydraulic conditions and associated floodplain limits.			

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

a. NAME Patrick Ellison, PE		b. ROLE IN THIS CONTRACT Drainage		c. YEARS EXPERIENCE	
				1. TOTAL 31	2. WITH CURRENT FIRM 16
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION)			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
<ul style="list-style-type: none"> MS, Geology, Washington State University, Spokane, Washington, 1982 BS, Geology, University of Arizona, Tucson, Arizona, 1977 			<ul style="list-style-type: none"> Professional Engineer #31680, State of Arizona 		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
<ul style="list-style-type: none"> Member, Arizona Floodplain Management Association 2006 Arizona Planning Association's State Planning Awards, Best Regional Plan, El Rio Watercourse Master Plan & Area Drainage Master Plan 					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Gillespie Area Drainage Master Study; Maricopa County, Arizona	(2) Year Completed	
		Professional Services 2010 - 2012	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm
	Project Manager for an extensive study of the Gillespie/Woolsey watershed, a 148 square mile area southwest of Phoenix, Arizona. The study provided a high level of flood safety for area residents by establishing guidelines to address current and potential flood hazards in the watershed.		
2)	(1) TITLE AND LOCATION (City and State) El Rio Watercourse Master Plan and Area Drainage Master Plan; Maricopa County, Arizona	(2) Year Completed	
		Professional Services 2006	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm
	Project Engineer on a multi discipline team that provided ecological, biological, water quality, scenic multi-use recreational assessments, hydrologic, hydraulic, sediment transport, and groundwater evaluations that were used to develop a flood control management plan for an 18-mile reach of the Gila River that extends from the confluence with the Agua Fria River to the SR-85 Bridge (approximately 17.5 miles long).		
3)	(1) TITLE AND LOCATION (City and State) Salt River Hydraulic Master Plan; Maricopa County, Arizona	(2) Year Completed	
		Professional Services 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm
	Evaluated an eight-mile reach of the Salt River. The purpose of the Salt River HMP is to determine the amount of flow that can be conveyed between the levees along the Salt River from the Interstate 10 Bridge to Alma School Road Bridge.		
4)	(1) TITLE AND LOCATION (City and State) Lynx Creek Levee and Sedona Shadows Levee Certification; Yavapai County, Arizona	(2) Year Completed	
		Professional Services 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm
	Oversaw levee certification submittal for levees classified as Certifiable by the Federal Emergency Management Agency (FEMA) in Yavapai County.		
5)	(1) TITLE AND LOCATION (City and State) Upper New River Area Drainage Master Plan; Maricopa County, Arizona	(2) Year Completed	
		Professional Services 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm
	ADMP for 169 square miles located in Phoenix, Peoria, and unincorporated Maricopa County. Work included the identification of drainage problems, hydrology, hydraulics, geomorphic analysis, erosion setbacks, FEMA floodplain delineations, stakeholder and public coordination, survey, environmental resources, scenery resource assessment, recreation multi-use assessment, development of alternative solutions, and preparation of preliminary design plans based on a preferred alternative that includes 8 miles of levees.		

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

a. NAME Michael Gerlach, PE		b. ROLE IN THIS CONTRACT Drainage		c. YEARS EXPERIENCE	
				1. TOTAL 20	2. WITH CURRENT FIRM 19
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION) • BS, Civil Engineering, Arizona State University, Tempe, Arizona, 1994			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) • Professional Engineer #19011, State of New Mexico • Professional Engineer #35150, State of Arizona		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) • Member, Chi Epsilon National Civil Engineering Honor Society • Member/Treasurer, Arizona Floodplain Management Association • Member, American Society of Civil Engineers					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Fool Hollow Dam Watershed Hydrology and Hydraulic Study; Navajo County, Arizona	(2) Year Completed	
		Professional Services 2006	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Flood hydrology (PMF general storm, PMF thunderstorm, and 100-year) for the 110 square mile watershed, including routing through three upstream reservoirs and routing through the Fool Hollow Reservoir and spillway. Purpose of the project is to assess spillway adequacy.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
2)	(1) TITLE AND LOCATION (City and State) City of Phoenix and Maricopa County Storm Drainage Design Manual; Maricopa County, Arizona	(2) Year Completed	
		Professional Services 2004	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Primary author for hydrology volume of the new storm drainage design manual for Maricopa County and the City of Phoenix. Major tasks included the research and development of a methodology and procedure for the development of rainfall-runoff models for more frequent flooding events and revisions to procedures for the methodologies in the previous Maricopa County Manual.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
3)	(1) TITLE AND LOCATION (City and State) Permanent Canal Closures and Pumps Project; New Orleans, Louisiana	(2) Year Completed	
		Professional Services 2013 - 2016	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Hydrolic Lead for a \$614 million design-build project to help protect the City of New Orleans from storm surges from Lake Pontchartrain. The pumps have a combined capacity of 24,200 cubic feet per second. Pumping is accomplished with 24, 2.6 megawatt generators backed up by six redundant units for a total of 78 megawatts across all three sites.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
4)	(1) TITLE AND LOCATION (City and State) Palo Verde Watershed Floodplain Delineation Study; Maricopa County, Arizona	(2) Year Completed	
		Professional Services 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE This hydrologically complex 275-square-mile watershed involved analysis of 15 crossings of the CAP canal, numerous flow splits due to the distinctive nature of the watershed, and more than 100 culverts crossing I-10.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
5)	(1) TITLE AND LOCATION (City and State) Gillespie Area Drainage Master Study; Maricopa County, Arizona	(2) Year Completed	
		Professional Services 2010 - 2012	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Engineer for an extensive study of the Gillespie/Woolsey watershed, a 148 square mile area southwest of Phoenix, Arizona. The study provided a high level of flood safety for area residents by establishing guidelines to address current and potential flood hazards in the watershed.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		

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

a. NAME Chuck Williams, PE		b. ROLE IN THIS CONTRACT Drainage		c. YEARS EXPERIENCE	
				1. TOTAL 27	2. WITH CURRENT FIRM 1
d. FIRM NAME AND LOCATION (City and State) Stantec (Tucson, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION) • BS, Civil Engineering, University of Arizona, Tucson, Arizona, 1986			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) • Professional Engineer #39614, State of Colorado • Professional Engineer #6024487-2202, State of Utah • Professional Engineer #24447, State of Arizona		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) • Member, American Society of Civil Engineers • Member, Arizona Association of County Engineers • Member, Arizona Floodplain Management Association					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Gila County Courthouse ADA/Access Improvement Project; Globe, Arizona	(2) Year Completed	
		Professional Services 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Developed construction improvement plans and bidding documents to improve access for disabled persons and traffic conditions at the main entrance into the Gila County Courthouse.		
	<input type="checkbox"/> Check if project performed with current firm		
2)	(1) TITLE AND LOCATION (City and State) Box Culvert Design, 16th Avenue at Rodeo Wash; Tucson, Arizona	(2) Year Completed	
		Professional Services 2013 - 2014	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE This project provides for an all-weather crossing between South 16th Avenue just north of West District Avenue where Rodeo Wash crosses South 16th Avenue. The project included modification of the hydraulic model and design of the new crossing.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
3)	(1) TITLE AND LOCATION (City and State) Apache County Storm Water Pollution Prevention Plan (SWPPP) Project; Apache County, Arizona	(2) Year Completed	
		Professional Services 2006 - 2007	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Developed Storm Water Pollution Prevention Plans for nine County roadyards and two existing material source pits. The roadyards were spread across the entire county and included locations in: Chambers, Chinle, Eagar, Fort Defiance, Ganado, Rock Point, St. Johns, Teec Nos Pos and Wheatfields. The two material pits were located in Concho and near Saint Johns.		
	<input type="checkbox"/> Check if project performed with current firm		
4)	(1) TITLE AND LOCATION (City and State) Bridge Embankment Protection Project at Two Locations; Santa Cruz County, Arizona	(2) Year Completed	
		Professional Services 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project to develop erosion/scour countermeasures to repair failed bridge abutment protection at two bridges. Scope was to evaluate bridge scour, river lateral migration, environmental constraints, prepare a Design Concept Report, and construction improvement plans.		
	<input type="checkbox"/> Check if project performed with current firm		
5)	(1) TITLE AND LOCATION (City and State) Lake Montezuma - Rimrock Wash and Beaver Creek School Wash Design Concept Study; Yavapai County, Arizona	(2) Year Completed	
		Professional Services 2013 - 2014	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Mr. Williams is managing the design of flood control structures that will remove residents from the 100-year floodplain. He is developing conceptual design alternatives for two separate watercourses in unincorporated Yavapai County: Rimrock Wash and Beaver Creek School Wash. The scope includes hydrologic and floodplain analysis, Design Concept Report, 404 permit application, design, and submittal of a LOMR to FEMA.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		

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

a. NAME Corey Thompson, PE		b. ROLE IN THIS CONTRACT Site Civil		c. YEARS EXPERIENCE	
				1. TOTAL 31	2. WITH CURRENT FIRM 13
d. FIRM NAME AND LOCATION (City and State) Stantec (Tucson, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION) • BS, Civil Engineering, University of Arizona, Tucson, Arizona, 1982			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) • Professional Engineer #22217, State of Arizona		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) • Member, Advisory Committee, Southern Arizona Home Builders Association • Member, Metropolitan Pima Alliance • Member, American Consulting Engineers Council					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) University of Arizona Science Center; Tucson, Arizona	(2) Year Completed	
		Professional Services 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Civil engineering for 111,000 SF of science center facilities distributed along a 1,700-foot pedestrian bridge structure that spans both the Santa Cruz River and a major intersection (I-10) within the Rio Nuevo project area. <input checked="" type="checkbox"/> Check if project performed with current firm		
2)	(1) TITLE AND LOCATION (City and State) Southgate Shopping Center; Tucson, Arizona	(2) Year Completed	
		Professional Services 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Site engineering for this 15-acre commercial site which included development plans, utility plans, grading, paving and drainage plans, and construction administration. The project required a new development of a portion of the overall site, and re-development of the existing Southgate Shopping Center to bring the overall site into code compliance. Construction was completed in 2009. <input checked="" type="checkbox"/> Check if project performed with current firm		
3)	(1) TITLE AND LOCATION (City and State) Pinal Energy Ethanol Plant; Maricopa, Arizona	(2) Year Completed	
		Professional Services 2007	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Provided civil design services for the 50 million gallon per year Pinal Energy Plant. The facility is located on old cattle feed lots and within a FEMA designated floodplain. <input checked="" type="checkbox"/> Check if project performed with current firm		
4)	(1) TITLE AND LOCATION (City and State) Sierra Morado Units 3 and 4 (Civano); Tucson, Arizona	(2) Year Completed	
		Professional Services 2007 - 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Provided project management, civil design, drainage, landscape architecture, entitlement, and construction observation services for Sierra Morado Units 3 and 4. <input checked="" type="checkbox"/> Check if project performed with current firm		
5)	(1) TITLE AND LOCATION (City and State) University of Arizona 6th Street Residence Halls; Tucson, Arizona	(2) Year Completed	
		Professional Services 2009 - 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Corey was project Manager for this new residence hall with 1,000 beds. The facility is certified LEED® Platinum. <input checked="" type="checkbox"/> Check if project performed with current firm		

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

a. NAME Warren Thompson, PE, RLS		b. ROLE IN THIS CONTRACT Site Civil		c. YEARS EXPERIENCE	
				1. TOTAL 42	2. WITH CURRENT FIRM 31
d. FIRM NAME AND LOCATION (City and State) Stantec (Tucson, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION)			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
			<ul style="list-style-type: none"> Professional Engineer, State of Nebraska Registered Land Surveyor #16908, State of Arizona Professional Engineer #14854, State of Arizona 		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
<ul style="list-style-type: none"> Member, Environmental Advisory Council Member, Tucson Metropolitan Chamber of Commerce Member, Northern Pima County Chamber of Commerce 					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) ROMP Water and Energy Sustainability Center; Tucson, Arizona	(2) Year Completed	
		Professional Services 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Stantec is providing site civil, hydrology, traffic, landscape, electric site lighting, onsite and offsite utilities for water and sewer, and paving for the Pima County Regional Wastewater Reclamation Department Water and Energy Sustainability Center six-acre parcel.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
2)	(1) TITLE AND LOCATION (City and State) Ajo Customs and Border Protection Housing; Ajo, Arizona	(2) Year Completed	
		Professional Services 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager responsible for the Stantec team which provided survey, land development engineering, concept planning, hydrology, landscaping, irrigation, mechanical/electrical, and LEED planning for the 35% design bridging documents and specifications for a new US Customs and Border Protection home development on an 11-acre site in Ajo, Arizona.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
3)	(1) TITLE AND LOCATION (City and State) Rancho Sahuarita; Sahuarita, Arizona	(2) Year Completed	
		Professional Services	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Topographic survey, boundary survey, ALTA survey, and hydrology constraints report for 2,300-acre mixed-use development.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
4)	(1) TITLE AND LOCATION (City and State) Sierra Morado Units 3 and 4 (Civano); Tucson, Arizona	(2) Year Completed	
		Professional Services 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Civil engineering, platting and processing, and hydrology, services for this single-family residential development for 306 single family lots comprising 56 acres, into 6 phases.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
5)	(1) TITLE AND LOCATION (City and State) Mountain Vail Estates; Tucson, Arizona	(2) Year Completed	
		Professional Services 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Civil engineering, platting and processing, hydrology, and construction observation services for this single-family residential development. 501 single family lots comprising 150 acres. Engineering design services included tentative plat final platting, grading, drainage, paving and sewer and water for residential development and main spine roads and adjacent roads, including a neighborhood park of 5 acres.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		

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

a. NAME Tricia Cook, PE	b. ROLE IN THIS CONTRACT Site Civil	c. YEARS EXPERIENCE	
		1. TOTAL 32	2. WITH CURRENT FIRM 14
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)			
e. EDUCATION (DEGREE AND SPECIALIZATION)		f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
<ul style="list-style-type: none"> MBA, University of British Columbia, Vancouver, British Columbia, 1991 BS, Civil Engineering, Queens University, Kingston, Ontario, 1981 		<ul style="list-style-type: none"> Professional Engineer #47519, State of Washington Professional Engineer #34417, State of Arizona 	
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			
<ul style="list-style-type: none"> Member, Association of Professional Engineers of Yukon Member, Association of Professional Engineers and Geoscientists of British Columbia 			

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Ocotillo Road Water Mains; Gilbert, Arizona	(2) Year Completed	
		Professional Services 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Part of the team for designing the alignment of waterlines to match existing stub-outs and ensuring proper pipe alignment to avoid conflicts when future road reconstruction occurs. Other tasks include coordination with local utilities, obtaining permits and temporary easements in advance, and quality review.	<input checked="" type="checkbox"/> Check if project performed with current firm	
2)	(1) TITLE AND LOCATION (City and State) Central Arizona Project Pipeline to San Tan Vista Water Treatment Plant; Gilbert, Arizona	(2) Year Completed	
		Professional Services 2006 - 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Design-build project for approximately 14 miles of 48-inch raw water pipeline connecting the CAP Canal with about 200 feet of elevation drop to the Town of Gilbert South Water Treatment Plant.	<input checked="" type="checkbox"/> Check if project performed with current firm	
3)	(1) TITLE AND LOCATION (City and State) Luke Air Force Base On-Call Engineering Services (Wastewater, Water, Stormwater, Planning); Glendale, Arizona	(2) Year Completed	
		Professional Services 1998 - Ongoing	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Tricia has provided design services for Luke AFB since 1988 through on-call contracts. Projects have included Luke AFB Sewer Study, Luke AFB Water Study, Luke AFB 400 and 900 Area Chill Facilities Design, and Luke AFB Water Storage Tank and Arsenic Treatment System.	<input checked="" type="checkbox"/> Check if project performed with current firm	
4)	(1) TITLE AND LOCATION (City and State) ADOT Meteor Crater Rest Area Wastewater Collection and Disposal System; Meteor Crater, Arizona	(2) Year Completed	
		Professional Services 2008 - 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Tricia was the lead designer for a new on-site wastewater collection and disposal system serving the Meteor Crater Rest Area, including permitting through ADEQ.	<input checked="" type="checkbox"/> Check if project performed with current firm	
5)	(1) TITLE AND LOCATION (City and State) Central Phoenix/East Valley Light Rail Transit Project - Line Section 3; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2002	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Managed the design for relocated water, sanitary sewer, and storm mains to avoid conflicts with new track and roadway improvements. The Light Rail Transit, Line Segment 3 project, covers approximately 8 miles through the downtown core of Phoenix, from McDowell Rd., down Central Ave. and 1st Ave. along Washington St. and Jefferson St. to 27th St.	<input checked="" type="checkbox"/> Check if project performed with current firm	

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

a. NAME Bill Ferris, Jr., PE		b. ROLE IN THIS CONTRACT Transportation		c. YEARS EXPERIENCE	
				1. TOTAL 26	2. WITH CURRENT FIRM 25
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION) • BS, Civil and Environmental Engineering, Clarkson University, Potsdam, New York, 1988			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) • Professional Engineer #43292, State of Arizona • Professional Engineer #295183 (inactive), State of Utah • Professional Engineer #070441 (inactive), State of New York		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) • Member, American Society of Civil Engineers • 2010 GSA Design Excellence Award, Mariposa LPOE • 2009 Roads & Bridges Magazine – Top 10 Roads, #8 Nationally I86/US 15 System Interchange					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Central Mesa LRT Extension; Mesa, Arizona	(2) Year Completed	
		Professional Services 2012 - Ongoing	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Principal-in-Charge of this 3.2-mile LRT extension through the city of Mesa's downtown central business district, Stantec's services include survey, roadway, trackway, drainage, overhead contact system (OCS), rail signals, communications, and systems integration.		<input checked="" type="checkbox"/> Check if project performed with current firm
2)	(1) TITLE AND LOCATION (City and State) Arizona-Sonora Border Master Plan; San Luis to Douglas, Arizona	(2) Year Completed	
		Professional Services 2012 - 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager for this comprehensive study, funded by FHWA, focused on developing and implementing a plan to identify, prioritize and promote Land Port of Entry and multi-modal transportation infrastructure projects in close proximity to the border that improve cross border travel efficiencies.		<input checked="" type="checkbox"/> Check if project performed with current firm
3)	(1) TITLE AND LOCATION (City and State) ADOT Truck Weigh and Credential Processing Facility – Mariposa Land Port of Entry; Nogales, Arizona	(2) Year Completed	
		Professional Services 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Served as Principal-in-Charge for the design of a new Truck Weigh and Credential Processing Facility for ADOT adjacent to the Mariposa Land Port of Entry.		<input checked="" type="checkbox"/> Check if project performed with current firm
4)	(1) TITLE AND LOCATION (City and State) SR 189 - International Border to MP 1.0; Nogales, Arizona	(2) Year Completed	
		Professional Services 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Principal-in-Charge for this small, but intensely complicated project that required intricate geometric alignments, detailed grading due to the need to keep all improvements within the existing ROW, traffic signals (2), and drainage .		<input checked="" type="checkbox"/> Check if project performed with current firm
5)	(1) TITLE AND LOCATION (City and State) Expansion and Modernization of the Mariposa Land Port of Entry; Nogales, Arizona	(2) Year Completed	
		Professional Services 2007 - 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Managed multidisciplinary team to completely redesign the extremely constrained site. Responsible for survey, site civil, utility, traffic, drainage, land acquisition mapping, building information modeling, communication systems, and transportation design for the demolition of the existing facilities (43-acre site) and expansion (12.6 acres) necessary to accommodate the growth in cross border traffic.		<input checked="" type="checkbox"/> Check if project performed with current firm

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

a. NAME Douglas Moseke, PE		b. ROLE IN THIS CONTRACT Transportation		c. YEARS EXPERIENCE	
				1. TOTAL 18	2. WITH CURRENT FIRM 18
d. FIRM NAME AND LOCATION (City and State) Stantec (Tucson, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION) • BS, Civil Engineering, University of Arizona, Tucson, Arizona, 1994			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) • Professional Engineer #34006, State of Arizona		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) • Member, Women's Transportation Seminar • Member, American Society of Civil Engineers					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Santa Cruz Shared Use Path; Marana, Arizona	(2) Year Completed	
		Professional Services 2012	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Mr. Moseke managed the design of 3,400 feet of Shared Use Path from Cortaro Road north along the west side of the Santa Cruz River. This project was completed as part of a Town of Marana On-Call Contract.		
<input checked="" type="checkbox"/> Check if project performed with current firm			
2)	(1) TITLE AND LOCATION (City and State) Golf Links and Kolb Intersection Design; Tucson, Arizona	(2) Year Completed	
		Professional Services 2012	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Mr. Moseke's responsibilities include overseeing the preparation of construction documents for the ultimate widening of the intersection. The project entails adding additional travel lanes, turn lanes, bus bays, and bicycle lanes on all quadrants of the intersection. The project includes new traffic signals, storm drain, raised medians, street lighting, sidewalks, retaining walls, and improvements to existing parking lots on the corners of the intersection.		
<input checked="" type="checkbox"/> Check if project performed with current firm			
3)	(1) TITLE AND LOCATION (City and State) Downtown Tucson Infrastructure Improvements; Tucson, Arizona	(2) Year Completed	
		Professional Services 2008 - 2012	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Mr. Moseke oversaw the preparation of construction drawings for roadway, streetscape, utility, and signal and lighting plans in downtown Tucson in preparation for the modern streetcar. He participated in public presentations to both residents in the area as well as council members.		
<input checked="" type="checkbox"/> Check if project performed with current firm			
4)	(1) TITLE AND LOCATION (City and State) Scott Avenue Streetscape Improvements - Broadway Boulevard to 14th Street; Tucson, Arizona	(2) Year Completed	
		Professional Services 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Mr. Moseke was responsible for plan production on this exciting project in downtown Tucson. The Scott Avenue Streetscape project narrowed the existing roadway to provide a more pedestrian friendly environment as you enter into the Tucson Arts District.		
<input checked="" type="checkbox"/> Check if project performed with current firm			
5)	(1) TITLE AND LOCATION (City and State) 96th Street - Shea Boulevard to Thunderbird Road; Scottsdale, Arizona	(2) Year Completed	
		Professional Services 2003 - 2006	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Mr. Moseke managed a multi-disciplined design team responsible for preparing final construction documents for almost two miles of road. Roadway improvements included lane shifts and two roundabouts to assist in traffic calming. The project also included multi-modal design. Multi-use Paths, Multi-use trails and bike lanes were included in the design. Intersection Improvements included widening to three through lanes in each direction, dual left turn lanes, designated right turn lanes and bus bays.		
<input checked="" type="checkbox"/> Check if project performed with current firm			

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

a. NAME Martin Armenta, PE, RCDD, LEED® AP		b. ROLE IN THIS CONTRACT Electrical		c. YEARS EXPERIENCE	
				1. TOTAL 24	2. WITH CURRENT FIRM 10
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION)			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
<ul style="list-style-type: none"> BS, Electrical Engineering, University of Arizona, Tucson, Arizona, 1989 Certificate, Airfield and Approach Lighting Systems, Transportation Guidance Systems Inc., Phoenix, Arizona, 2004 			<ul style="list-style-type: none"> Professional Engineer #29346, State of Arizona Professional Engineer #E16438, State of California Professional Engineer #15327, State of New Mexico Professional Engineer #15192, State of Nevada 		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
<ul style="list-style-type: none"> LEED Accredited Professional, U.S. Green Building Council Member, Building Industry Consulting Service International (BICSI) #06050, Registered Communications Distribution Designer 					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Luke Air Force Base RAPCON HVAC and Roof Update; Luke Air Force Base, Arizona	(2) Year Completed	
		Professional Services 2008 - 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Evaluation of electrical systems of specific Base facilities and provided a design solution to bring these systems up to current standards. All systems were designed with back-up capabilities for use in the event of any system failure. Upgrade of the existing electrical distribution system, including, but not limited to, the service entrance section, standby power generator, and automatic transfer switch.		<input checked="" type="checkbox"/> Check if project performed with current firm
2)	(1) TITLE AND LOCATION (City and State) ADOT Sunset Point Rest Area Refurbishment Project; Arizona	(2) Year Completed	
		Professional Services 2007 - 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE The project includes an existing restroom building, kiosk, site pedestrian area lighting, site parking lot lighting, residence building, water storage pump station, sewer treatment plant and well pump station as well as a new restroom building, storage pump station and provisions for future expansion. The design scope involved preparing exterior photo metric calculations for pedestrian walkway lighting, area lighting, and parking lot lighting.		<input checked="" type="checkbox"/> Check if project performed with current firm
3)	(1) TITLE AND LOCATION (City and State) 91st Avenue Wastewater Treatment Plant Security Improvements; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2006 - 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Design services for a security system consisting of perimeter intrusion, building security, directional signs, and gate controls. Phase I includes a threat-risk assessment and Phase II includes contract document development implementing the TRA recommendations. Project was delivered via design-build.		<input checked="" type="checkbox"/> Check if project performed with current firm
4)	(1) TITLE AND LOCATION (City and State) Central Phoenix/East Valley Light Rail Transit Project - Line Section 3; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2003	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Managed the mechanical, electrical, and plumbing disciplines for the relocation a pedestrian bridge elevator. The bridge and elevator were relocated as needed to accommodate the rail route. Engineered the power, lighting, and fire alarm systems.		<input checked="" type="checkbox"/> Check if project performed with current firm
5)	(1) TITLE AND LOCATION (City and State) Nogales International Wastewater Treatment Plant; Nogales, Arizona	(2) Year Completed	
		Professional Services 2007 - 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Engineered the 480V and 13kV power distribution and lighting systems for the 14.74 MGD upgrade. The project, designed in a compressed six month schedule, included decommissioning of the existing detritors and replacement with vortex grit tanks, 6 mm screens downstream of the existing 25 mm coarse screens, biofilters for plant wide odor control, and three secondary process trains for nitrification and denitrification. The project was awarded the 2010 APWA Project of the Year Award.		<input checked="" type="checkbox"/> Check if project performed with current firm

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

a. NAME John Theiss, IAEI		b. ROLE IN THIS CONTRACT Electrical		c. YEARS EXPERIENCE	
				1. TOTAL 31	2. WITH CURRENT FIRM 21
d. FIRM NAME AND LOCATION (City and State) Stantec (Tucson, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION) • AS, General Studies, Pima Community College, Tucson, Arizona, 1987			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) • Member, Society of American Military Engineers, Southern Arizona Chapter • Member, International Association of Electrical Inspectors					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) James A. Walsh Federal Courthouse Energy Audit; Tucson, Arizona	(2) Year Completed	
		Professional Services 2009 - 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager for the analysis of the existing energy consumption of the building and to identify possible modifications that would enable the building to use less energy.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
2)	(1) TITLE AND LOCATION (City and State) City of Scottsdale Energy Analysis; Scottsdale, Arizona	(2) Year Completed	
		Professional Services 2010 - 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Energy audits for 29 City owned buildings totaling 912,500 square feet. The audit will identify the energy conservation potential, catalogue existing energy performance and end-uses (baseline conditions), and generate a list of Energy Conservation Measures (ECM) that can be implemented. A description of the work, opinion of probable costs, annual energy saving potential per system, and expected economic return in the aforementioned report will be documented for each ECM.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
3)	(1) TITLE AND LOCATION (City and State) Expansion and Modernization of the Mariposa Land Port of Entry; Nogales, Arizona	(2) Year Completed	
		Professional Services 2009 - Ongoing	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for electrical engineering for the demolition of the existing facilities (43-acre site) and expansion (12.6 acres) necessary to accommodate the growth in cross border traffic.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
4)	(1) TITLE AND LOCATION (City and State) University of Arizona 6th Street Residence Halls; Tucson, Arizona	(2) Year Completed	
		Professional Services 2009 - 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE John provided utility and electrical design on this new residence hall with 1,000 beds. The facility is certified LEED Platinum.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
5)	(1) TITLE AND LOCATION (City and State) Tucson International Airport: Terminal Expansion; Tucson, Arizona	(2) Year Completed	
		Professional Services 2002 - 2005	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Provided construction administration services for the mechanical, electrical, and civil engineering tasks for this 60,000 sf expansion. Mr. Theiss was the architect's and TAA's single point of contact for the civil, mechanical, plumbing, and electrical engineering portions of this \$50 million dollar project.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		

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

a. NAME Patrick McKenna, PE, LEED® AP	b. ROLE IN THIS CONTRACT Mechanical	c. YEARS EXPERIENCE	
		1. TOTAL 14	2. WITH CURRENT FIRM 4
d. FIRM NAME AND LOCATION (City and State) Stantec (Tucson, Arizona)			
e. EDUCATION (DEGREE AND SPECIALIZATION) • BS, Architectural Engineering, Wentworth Institute of Technology, Boston, Massachusetts, 1999		f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) • Professional Engineer #45696, State of Arizona • Professional Engineer #21129, State of Nevada • Professional Engineer #20115, State of New Mexico • Professional Engineer #106583, State of Texas • Professional Engineer #43724, State of Colorado	
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) • Member, American Society of Heating, Refrigerating & Air-Conditioning Engineers • LEED Accredited Professional, U.S. Green Building Council • Member, Society of American Military Engineers, Southern Arizona Chapter			

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Laughlin/Bullhead International Airport: Baggage Claim Enclosure ; Bullhead City, Arizona	(2) Year Completed	
		Professional Services 2009 - 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Mechanical and plumbing design services for a 3,700 SF baggage claim expansion for the existing terminal building. The mechanical system consisted of split-system air handling units. There were also modifications to the existing mechanical and plumbing systems to accommodate the expansion.	<input checked="" type="checkbox"/> Check if project performed with current firm	
2)	(1) TITLE AND LOCATION (City and State) City of Scottsdale Energy Analysis ; Scottsdale, Arizona	(2) Year Completed	
		Professional Services 2010 - 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Energy audits for 29 City owned buildings totaling 912,500 square feet. The audit will identify the energy conservation potential, catalogue existing energy performance and end-uses (baseline conditions), and generate a list of Energy Conservation Measures (ECM) that can be implemented. A description of the work, opinion of probable costs, annual energy saving potential per system, and expected economic return in the aforementioned report will be documented for each ECM.	<input checked="" type="checkbox"/> Check if project performed with current firm	
3)	(1) TITLE AND LOCATION (City and State) James A. Walsh Federal Courthouse Energy Audit ; Tucson, Arizona	(2) Year Completed	
		Professional Services 2009 - 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Analysis of the existing energy consumption of the building and to identify possible modifications that would enable the building to use less energy.	<input checked="" type="checkbox"/> Check if project performed with current firm	
4)	(1) TITLE AND LOCATION (City and State) University of Arizona 6th Street Residence Halls ; Tucson, Arizona	(2) Year Completed	
		Professional Services 2009 - 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Provided mechanical engineering and LEED design services on this new residence hall with 1,000 beds. The facility is certified LEED Platinum.	<input checked="" type="checkbox"/> Check if project performed with current firm	
5)	(1) TITLE AND LOCATION (City and State) I-10 Deck Park Tunnel Inspection ; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2012	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Inspection services for the highway tunnel running through downtown Phoenix, which serves over 260,000 vehicles per day. The items inspected included the tunnel ventilation system (eight 400 HP fans), carbon monoxide sensors, and fire protection piping and hydrants. The inspection identified the current condition of the equipment, as well as deficiencies that required immediate attention.	<input checked="" type="checkbox"/> Check if project performed with current firm	

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

a. NAME John Nel, A.Sc.T., PMP		b. ROLE IN THIS CONTRACT Instrumentation & Controls		c. YEARS EXPERIENCE	
		1. TOTAL 30	2. WITH CURRENT FIRM 16		
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION)			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
<ul style="list-style-type: none"> National Diploma, Instrumentation, Sasolburg Technical College, Sasolburg, South Africa, 1981 Masters Diploma (NHD), Electrical Engineering, Durban University of Technology (DUT), Durban, South Africa, 1983 			<ul style="list-style-type: none"> Technical Specialist #18808, Applied Science Technologists & Technicians of British Columbia Project Management Professional #525131, Project Management Institute 		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
<ul style="list-style-type: none"> Member, International Society of Automation Member, Project Management Institute Member, Applied Science Technologists & Technicians of British Columbia 					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Nogales International Wastewater Treatment Plant; Nogales, Arizona	(2) Year Completed	
		Professional Services 2007 - 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Instrumentation and controls for the 14.74 MGD upgrade of the Nogales International Wastewater Treatment Plant. The project included decommissioning of the existing detritors and replacement with vortex grit tanks, 6 mm screens downstream of the existing 25 mm coarse screens, biofilters for plant wide odor control, and three secondary process trains for nitrification and denitrification.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
2)	(1) TITLE AND LOCATION (City and State) Marana Wastewater Treatment Facility; Marana, Arizona	(2) Year Completed	
		Professional Services 2001 - 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Designs have been completed to expand the facility to a 6 mgd facility in 1.5 mgd increments. Construction of the secondary effluent pump station, filtration system, and UV disinfection was completed in 2008. The plant process designs also included a grit removal system, fine screening, flow monitoring, influent pump station with flow equalization, modular BNR secondary system, UV disinfection, reuse storage, reuse pump station, biofilter odor control, and solids handling.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
3)	(1) TITLE AND LOCATION (City and State) City of Brush Wastewater Treatment Plant Expansion; Brush, Colorado	(2) Year Completed	
		Professional Services 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE The design for the expansion of the City's existing WWTF was based on providing the City with a highly automated electrical and control system utilizing SCADA PLCs, and HMI to facilitate operations. Due to the fast track nature of this project, the final design was completed within two months of conception.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
4)	(1) TITLE AND LOCATION (City and State) RIC Cooling Water Pump Station; Saudi Arabia	(2) Year Completed	
		Professional Services 2012 - 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for the complete electrical and instrumentation design for the Salt Water Pumping Station. This project requires medium voltage VFDs to support a total of seven 2,500 HP pump sets.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		
5)	(1) TITLE AND LOCATION (City and State) IEUA Facilities; California	(2) Year Completed	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for the complete electrical and instrumentation design, for various projects within IEUA – Projects included work at RP-1, RP-5, Carbon Canyon and Turner Basin. John provided complete system design and construction support serves. This included drawings specifications and control system narratives to support the PLC and SCADA application programming activities.		
	<input checked="" type="checkbox"/> Check if project performed with current firm		

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

a. NAME Bert Stone, CBO		b. ROLE IN THIS CONTRACT Plan Review/Code Compliance		c. YEARS EXPERIENCE	
				1. TOTAL 25	2. WITH CURRENT FIRM 7
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION)			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
<ul style="list-style-type: none"> AAS, Welding Technology, Portland Community College, Portland, Oregon, 1982 AS, Building Technology, Chemeketa Community College, Salem, Oregon, 1988 			<ul style="list-style-type: none"> Certified Building Official, International Code Council Certified Building Official, Oregon Building Officials Association Certified, Arizona Building Officials 		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
<ul style="list-style-type: none"> Residential Mechanical Inspector, International Code Council Residential Plumbing Inspector, International Code Council Residential Building Inspector, International Code Council Residential Electrical Inspector, International Code Council 					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Arizona State University Business School Facility; Tempe, Arizona	(2) Year Completed	
		Professional Services 2012	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Performed building, mechanical, plumbing, and electrical plan review management for a four-story, 129,245 square foot business school facility. Worked with architects, engineers and stockholders to resolve County adopted code issues to assure completion of the project without major delays.			
2)	(1) TITLE AND LOCATION (City and State) Banner Canyon Springs Medical Center; Gilbert, Arizona	(2) Year Completed	
		Professional Services 2012 - 2013	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Performed building, mechanical, plumbing plan reviews for an Outpatient Medical Center located in Gilbert, Arizona. Worked with architects, engineers and City staff to assure code compliance with City adopted codes.			
3)	(1) TITLE AND LOCATION (City and State) Phoenix Premium Outlets; Chandler, Arizona	(2) Year Completed	
		Professional Services 2013	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Performed building, mechanical, and plumbing plan reviews for a \$290-million Mall Complex on the Gila River Indian Community property located in Chandler, Arizona. The project consisted of 9-major buildings and over 100 tenant space for a total square footage of 425,422.			
4)	(1) TITLE AND LOCATION (City and State) Red Rock Correctional Center; Eloy, Arizona	(2) Year Completed	
		Professional Services 2012 - 2013	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Performed building, mechanical, plumbing, and electrical plan review management for new additions and tenant improvements to the existing correctional facility. Worked closely with architects, engineer, contractor and owner for code compliance and constructability.			
5)	(1) TITLE AND LOCATION (City and State) Maricopa County Sheriff Headquarters Building; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2012 - 2013	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Performed building, mechanical, plumbing, and electrical plan review management for new 5-story sheriff headquarter facility with holding cells, offices and 911 center. The total project valuation was \$45-million. Worked closely with all contacts for code compliance and constructability.			

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

a. NAME Theresa Jones, RG		b. ROLE IN THIS CONTRACT Geological/Environmental		c. YEARS EXPERIENCE	
				1. TOTAL 21	2. WITH CURRENT FIRM 8
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION) • BS, Geology; Minor, Environmental Science, James Madison University, Harrisonburg, Virginia, 1992			f. 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) Salt River Pima-Maricopa Indian Community Fueling Facility; Scottsdale, Arizona	(2) Year Completed	
		Professional Services 2005	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for planning, managing, and implementing UST system removal, subsequent site characterization assessments, and remedial actions.		<input checked="" type="checkbox"/> Check if project performed with current firm
2)	(1) TITLE AND LOCATION (City and State) Aquifer Protection Permitting for Drywells at Petroleum Bulk Storage Terminal; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2005 - 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Prepared and secured Aquifer Protection Permits (APP) and directed cleanout when necessary for existing drywells at active petroleum bulk storage terminal. Planned and implemented a subsurface assessment in the vicinity of each dry well to determine whether historical activities associated with the drywells had resulted in impact.		<input checked="" type="checkbox"/> Check if project performed with current firm
3)	(1) TITLE AND LOCATION (City and State) Soil Vapor Extraction/Air Sparge Remediation Associated With Gasoline Release; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2007 - 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Managed and prepared feasibility studies, corrective action plans, remedial system design and permitting, bid preparation, operation and maintenance activities, and prepared supporting documentation and reports to secure leaking underground storage tank (LUST) closure.		<input checked="" type="checkbox"/> Check if project performed with current firm
4)	(1) TITLE AND LOCATION (City and State) Light Industrial/Commercial Facilities; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2001 - 2005	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Conducted Phase I and Phase II ESAs in the Phoenix area. Primary sites include former contracting facilities, residential facilities, retail gasoline facilities, and vacant properties pending development.		<input type="checkbox"/> Check if project performed with current firm
5)	(1) TITLE AND LOCATION (City and State) Arizona Underground Storage Tank Portfolio Management; Various, Arizona	(2) Year Completed	
		Professional Services 2005 - 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for management of statewide portfolios including retail gasoline-dispensing facilities. Projects include UST system upgrades, replacements, and closures; immediate response; release reporting; site characterizations; feasibility testing; remediation system installation, construction management, remedial system operation-and-maintenance (O&M); risk analysis; and hazardous and non-hazardous waste disposal.		<input checked="" type="checkbox"/> Check if project performed with current firm

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

a. NAME Galen Drake, RLA, CPESC, LEED® AP		b. ROLE IN THIS CONTRACT Landscape Architecture		c. YEARS EXPERIENCE	
				1. TOTAL 38	2. WITH CURRENT FIRM 26
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION) • BS, Landscape Architecture, University of Arizona, Tucson, Arizona, 1977			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) • Certified Professional in Erosion and Sediment Control #2357, CPESC, Inc. • Registered Landscape Architect #14889, State of Arizona		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) • LEED Accredited Professional, U.S. Green Building Council • Member, International Erosion Control Association • Member, American Society of Landscape Architects					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Rincon Solid Waste Transfer Station; Tucson, Arizona	(2) Year Completed	
		Professional Services 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Provided landscape, hardscape, and irrigation design support. This site has been certified LEED® Silver.		
<input checked="" type="checkbox"/> Check if project performed with current firm			
2)	(1) TITLE AND LOCATION (City and State) Kyrene Water Reclamation Facility; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2005 - 2007	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Site improvements for this 10-acre site included a storage yard, parking, on-site retention basins, specialty wash bays, and landscape improvements to accentuate the public areas of the property and provide secure traffic circulation at the southern portion of the facility. The project was designed to achieve a LEED® Gold accreditation. The main project consisted of the additional 10,000 SF of administrative office space, 3,200 SF of maintenance space, and 10,000 SF of warehouse space.		
<input checked="" type="checkbox"/> Check if project performed with current firm			
3)	(1) TITLE AND LOCATION (City and State) City of Chandler Landscape Management Master Plan; Chandler, Arizona	(2) Year Completed	
		Professional Services 2005	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Mr. Drake was oversaw the final landscape management master plan for the inventory of over 8,500 trees located throughout the City of Chandler. Other responsibilities included the development of a tree ordinance and forestry planning program. The project was instrumental in achieving APWA accreditation for the City.		
<input checked="" type="checkbox"/> Check if project performed with current firm			
4)	(1) TITLE AND LOCATION (City and State) Central Phoenix/East Valley Light Rail Transit Project - Line Section 3; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2002 - 2005	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Provided landscape, hardscape, and irrigation design support.		
<input checked="" type="checkbox"/> Check if project performed with current firm			
5)	(1) TITLE AND LOCATION (City and State) ADOT Statewide Rest Area Rehabilitation, Roadside Development Services; Statewide, Arizona	(2) Year Completed	
		Professional Services 1998 - 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Completed a comprehensive feasibility study and designs for the rehabilitation of 16 interstate rest areas in the State of Arizona, including Sunset Point Rest Area. Improvements included new ramps/parking areas, restroom buildings, information and vending kiosks, caretaker's residences, picnic shelters, pumphouses, mechanical and irrigation systems, site furnishings, hardscaping, and new well development.		
<input checked="" type="checkbox"/> Check if project performed with current firm			

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

a. NAME Ed Balliet, RLS		b. ROLE IN THIS CONTRACT Land Surveying		c. YEARS EXPERIENCE	
				1. TOTAL 23	2. WITH CURRENT FIRM 15
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION)			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) • Registered Land Surveyor #31587, State of Arizona		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Glendale Onboard Improvements; Glendale, Arizona	(2) Year Completed	
		Professional Services 2006 - 2007	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Stantec provided construction staking and survey services to the Construction Manager at Risk (CM@R) for this project, which involved integration of design and construction phases of several intersection improvements.		
		<input checked="" type="checkbox"/> Check if project performed with current firm	
2)	(1) TITLE AND LOCATION (City and State) Central Phoenix/East Valley Light Rail Transit Project - Line Section 3; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2002 - 2005	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project manager for the survey aspects of Line Segment 3. This line segment totaled 8.25 miles of double-track through downtown Phoenix. He was responsible for the quality control for all control surveys, verification of control, maintenance of all topographic survey, and coordination of right-of-way.		
		<input checked="" type="checkbox"/> Check if project performed with current firm	
3)	(1) TITLE AND LOCATION (City and State) SR 24 202L-Ellsworth; Mesa, Arizona	(2) Year Completed	
		Professional Services 2012 - 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager for construction survey services and layout of two large flyover structures totaling over 6000 linear feet as well as two box-beam, post-tensioned bridges, two large girder bridges, twelve retaining walls, four box culverts and includes one bridge widening.		
		<input checked="" type="checkbox"/> Check if project performed with current firm	
4)	(1) TITLE AND LOCATION (City and State) Hayden Road Improvements, Shea Boulevard to Redfield Road; Scottsdale, Arizona	(2) Year Completed	
		Professional Services 2006	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project consisted of roadway, drainage, landscaping, and art plaza on Hayden Road including ITS infrastructure and waterline improvements. Provided construction survey services, layout, and as-builts.		
		<input checked="" type="checkbox"/> Check if project performed with current firm	
5)	(1) TITLE AND LOCATION (City and State) I-10 Deck Park Tunnel Inspection; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2012	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Survey and LIDAR scanning for the highway tunnel running through downtown Phoenix, which serves over 260,000 vehicles per day. The items inspected included the tunnel ventilation system (eight 400 HP fans), carbon monoxide sensors, and fire protection piping and hydrants. The inspection identified the current condition of the equipment, as well as deficiencies that required immediate attention.		
		<input checked="" type="checkbox"/> Check if project performed with current firm	

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

a. NAME David Hill, RLS		b. ROLE IN THIS CONTRACT Land Surveying		c. YEARS EXPERIENCE	
		1. TOTAL 41	2. WITH CURRENT FIRM 10		
d. FIRM NAME AND LOCATION (City and State) Stantec (Tucson, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION)			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
<ul style="list-style-type: none"> • Postgraduate in Land Surveying, University of London, London, United Kingdom, 1973 • Bachelors in Geography, University of Birmingham, Birmingham, United Kingdom, 1972 					
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
<ul style="list-style-type: none"> • Club President, Toastmasters International • Member, Royal Institution of Chartered Surveyors 					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) University of Arizona 6th Street Residence Halls; Tucson, Arizona	(2) Year Completed	
		Professional Services 2009 - 2010	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Topographical surveys, by ground methods of various sites at University of Arizona, for student housing and associated improvements. This project also included underground utility surveys and multiple easement descriptions for rights-of-way or utilities.			
2)	(1) TITLE AND LOCATION (City and State) ADOT Truck Weigh and Credential Processing Facility - Mariposa Land Port of Entry; Nogales, Arizona	(2) Year Completed	
		Professional Services 2010 - 2011	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Mr. Hill was the Survey Manager for this proposed improvement project which includes seven processing booths; a new administration building at the existing Arizona State Inspection Facility; dynamic message sign; slow speed weigh-in motion scales; new Portland cement concrete paving; storm drain; and ancillary water, sewer, fire suppression, electrical, data, and communications infrastructure.			
3)	(1) TITLE AND LOCATION (City and State) Expansion and Modernization of the Mariposa Land Port of Entry; Nogales, Arizona	(2) Year Completed	
		Professional Services 2010 - Ongoing	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Mr. Hill is the Survey Manager for the complete redesign of the extremely constrained Mariposa Land Port of Entry site.			
4)	(1) TITLE AND LOCATION (City and State) Avenue B&C Colonia Wastewater Collection System; Yuma, Arizona	(2) Year Completed	
		Professional Services 2011	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Mr. Hill was the Survey Manager for the installation of approximately 8.5 miles of sewer collection system in an area of Yuma County bounded by Avenues B and C and 1st and 8th Streets.			
5)	(1) TITLE AND LOCATION (City and State) Town of Marana As-Needed Professional Land Survey Services; Marana, Arizona	(2) Year Completed	
		Professional Services 2008 - Ongoing	Construction (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE		<input checked="" type="checkbox"/> Check if project performed with current firm	
Since 2008, this on-going contract provides for as-needed services including surveys for engineering design, ALTA/ACSM, boundary and rights-of-way surveys, topographical surveys including ground control for photogrammetric mapping, GPS control surveys, property descriptions, records of survey and any other land surveying activities, as required by the Town of Marana.			

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

a. NAME Bob Larkin, RPA, AICP		b. ROLE IN THIS CONTRACT Environmental		c. YEARS EXPERIENCE	
				1. TOTAL 40	2. WITH CURRENT FIRM 20
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION)			f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
<ul style="list-style-type: none"> MA, Archaeology, Anthropology, Arizona State University, Tempe, Arizona, 1988 MS, Environmental Planning, University of Arizona, Tucson, Arizona, 1977 BA, Archaeology, University of Arizona, Tucson, Arizona, 1972 			<ul style="list-style-type: none"> Certified Planner #100913, American Institute of Certified Planners Registered Professional Archaeologist #11302, Register of Professional Archaeologists 		
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
<ul style="list-style-type: none"> Member, American Institute of Certified Planners Member, Arizona Historical Advisory Commission Member, Arizona Archaeological Council 					

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) El Rio Watercourse Master Plan and Area Drainage Master Plan; Maricopa County, Arizona	(2) Year Completed	
		Professional Services 2005	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Oversaw the internal Stantec environmental efforts for the El Rio Watercourse Master Plan (an effort to investigate the feasibility of restoring portions of a 17-mile reach of the Gila River).		<input checked="" type="checkbox"/> Check if project performed with current firm
2)	(1) TITLE AND LOCATION (City and State) East-West Corridor Project; Bullhead City, Arizona	(2) Year Completed	
		Professional Services 2006	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Prepared the jurisdictional delineation, Section 404 permit application, archaeology report, managed the biology report preparation, and coordinated the project with the US Army Corps of Engineers and the Bureau of Land Management for compensatory mitigation.		<input checked="" type="checkbox"/> Check if project performed with current firm
3)	(1) TITLE AND LOCATION (City and State) Ocotillo Road Water Mains; Gilbert, Arizona	(2) Year Completed	
		Professional Services 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Prepared the Section 404 application for the proposed construction of four miles of 36" water main extending from Gilbert Road to Higley Road.		<input checked="" type="checkbox"/> Check if project performed with current firm
4)	(1) TITLE AND LOCATION (City and State) B&C Colonia Environmental Assessment; Yuma, Arizona	(2) Year Completed	
		Professional Services 2006	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Oversaw the Environmental Assessment (EA) for B&C Colonia in Yuma, Arizona. The EA will describe the impacts of three viable alternatives for providing wastewater service to 838 house lots that currently rely on septic tanks and outhouses.		<input checked="" type="checkbox"/> Check if project performed with current firm
5)	(1) TITLE AND LOCATION (City and State) Tempe Town Lake New Rubber Dam; Tempe, Arizona	(2) Year Completed	
		Professional Services 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Coordinated the project with the Corps of Engineers and with ADEQ, communicated with both agencies, and drafted the project description letters to both agencies for Tempe's signature. The rubber dam replacement was therefore allowed to occur under the existing Section 404 and 401 permits.		<input checked="" type="checkbox"/> Check if project performed with current firm

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

a. NAME Jim Van Houten, PE	b. ROLE IN THIS CONTRACT Construction Management/ Administration	c. YEARS EXPERIENCE	
		1. TOTAL 39	2. WITH CURRENT FIRM 21
d. FIRM NAME AND LOCATION (City and State) Stantec (Phoenix, Arizona)			
e. EDUCATION (DEGREE AND SPECIALIZATION) • BS, Civil Engineering, University of Missouri, Rolla, Missouri, 1974		f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) • Professional Engineer #10898, State of Nevada • Professional Engineer #33063, State of Arizona	
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) • Member, Chi Epsilon National Civil Engineering Honor Society • Level II & III Field Inspector, American National Standards Institute • Member, American Society of Civil Engineers			

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) I-10 Deck Park Tunnel Inspection; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2012	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Inspection of the highway tunnel running through downtown Phoenix, which serves over 260,000 vehicles per day. The items inspected included the tunnel ventilation system (eight 400 HP fans), carbon monoxide sensors, and fire protection piping and hydrants. The inspection identified the current condition of the equipment, as well as deficiencies that required immediate attention.	<input checked="" type="checkbox"/> Check if project performed with current firm	
2)	(1) TITLE AND LOCATION (City and State) South Division Transit Maintenance Facility Liquid Natural Gas Station Refurbishments; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2008 - 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Construction administration and inspection services for the federally funded South Operating Facility LNG Fuel Station Refurbishment. This project included the construction of two new 30,000 gallon LNG storage tanks, replacement of three LNG fuel dispensers, controls, emergency generator, electrical equipment enclosure, LNG and flame detection system upgrades, and other improvements over a nine-month construction period at a facility operating 24-hours a day, seven days a week.	<input checked="" type="checkbox"/> Check if project performed with current firm	
3)	(1) TITLE AND LOCATION (City and State) Laughlin/Bullhead International Airport: Aircraft Parking Apron, Access Road and Parking Lot; Bullhead City, Arizona	(2) Year Completed	
		Professional Services 2008 - 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Construction administration for the rehabilitation of an aircraft parking apron, access road, and the existing airport parking lot, as well as expansion of the parking lot.	<input checked="" type="checkbox"/> Check if project performed with current firm	
4)	(1) TITLE AND LOCATION (City and State) City of Phoenix Fuel Tank Farm; Phoenix, Arizona	(2) Year Completed	
		Professional Services 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Provided Construction Management services for security upgrades to a Fuel Tank Farm for the City of Phoenix.	<input checked="" type="checkbox"/> Check if project performed with current firm	
5)	(1) TITLE AND LOCATION (City and State) ADOT Statewide Rest Area Rehabilitation, Roadside Development Services; Statewide, Arizona	(2) Year Completed	
		Professional Services 1998 - 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Provided construction management for the rehabilitation of interstate rest areas in the State of Arizona, including Sunset Point Rest Area. Improvements included new ramps/parking areas, restroom buildings, information and vending kiosks, caretaker's residences, picnic shelters, pumphouses, mechanical and irrigation systems, site furnishings, hardscaping, and new well development.	<input checked="" type="checkbox"/> Check if project performed with current firm	

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

a. NAME Richard Bigelow	b. ROLE IN THIS CONTRACT Construction Management/ Administration	c. YEARS EXPERIENCE	
		1. TOTAL 20	2. WITH CURRENT FIRM 17
d. FIRM NAME AND LOCATION (City and State) Stantec (Tucson, Arizona)			
e. EDUCATION (DEGREE AND SPECIALIZATION)		f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
<ul style="list-style-type: none"> BS, Watershed Management, University of Arizona, Tucson, Arizona, 1993 Certification Number U-910-11445 to Practice PACP, MACP, and LACP, National Association of Sewer Service Companies, Owings Mills, MD, 2010 		<ul style="list-style-type: none"> Certified Field Technician #16582F, Arizona Technical Testing Institute Certified Field Technician, American Concrete Institute Grade 2 Water Distribution System Operator #45652, Arizona Department of Environmental Quality 	
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) ROMP Water and Energy Sustainability Center; Tucson, Arizona	(2) Year Completed	
		Professional Services 2010 - 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Mr. Bigelow performed construction inspection and observation for the Pima County Regional Wastewater Reclamation Department's Water and Energy Sustainability Center (WESC). <input checked="" type="checkbox"/> Check if project performed with current firm		
2)	(1) TITLE AND LOCATION (City and State) Rancho Sahuarita; Sahuarita, Arizona	(2) Year Completed	
		Professional Services	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Hydrologic and hydraulic study to develop conceptual drainage infrastructure to serve as master drainage plan for approximately 2,300 acres of future commercial and residential development. <input checked="" type="checkbox"/> Check if project performed with current firm		
3)	(1) TITLE AND LOCATION (City and State) Stanta Cruz Interceptor, Franklin Street to Prince Road, Phase 3; Tucson, Arizona	(2) Year Completed	
		Professional Services 2011 - 2012	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Mr. Bigelow performed construction inspection for Pima County Regional Wastewater Reclamation Department for the installation of 7,335 linear feet of steel and fiberglass pipeline varying from 42" to 66" via direct bore tunneling, jack and bore, and open cut. <input checked="" type="checkbox"/> Check if project performed with current firm		
4)	(1) TITLE AND LOCATION (City and State) I-10 Ruthrauff Road to Prince Road, Sanitary Sewer Improvements; Tucson, Arizona	(2) Year Completed	
		Professional Services 2011 - 2012	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Construction inspection for the sanitary sewer construction and relocation of 10" PVC, 42" and 48" fiberglass, and 72" and 78" cast-in-place pipe, as well as construction of junction structures and flow bypass pumping. <input checked="" type="checkbox"/> Check if project performed with current firm		
5)	(1) TITLE AND LOCATION (City and State) Pima County Wastewater Inspection New Construction; Pima County, Arizona	(2) Year Completed	
		Professional Services 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Mr. Bigelow provided inspection and observation services during the construction of public wastewater collection systems within new developments for the Pima County Wastewater Department. Responsibilities included ensuring quality of work, maintaining shop drawings and reports, and system testing prior to the county accepting the collection system. <input checked="" type="checkbox"/> Check if project performed with current firm		

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

a. NAME Ron Hegge	b. ROLE IN THIS CONTRACT Mining	c. YEARS EXPERIENCE	
		1. TOTAL 28	2. WITH CURRENT FIRM 2
d. FIRM NAME AND LOCATION (City and State) Stantec (Tempe, Arizona)			
e. EDUCATION (DEGREE AND SPECIALIZATION) • BS, Mechanical Engineering, University of California, Santa Barbara, California, 1982		f. 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) Pinto Valley Operations, EPCM - Phase 1; Miami, Arizona	(2) Year Completed	
		Professional Services 2012	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for all project aspects of BHP Billiton's Pinto Valley Operations Phase 1 Restart Project, including management of the following services: health, safety, environment, and community (HSEC) management; engineering and design; procurement and contracts; project controls; construction management; and commissioning.		
		<input checked="" type="checkbox"/> Check if project performed with current firm	
2)	(1) TITLE AND LOCATION (City and State) Pinto Valley Test Heap Leach; Miami, Arizona	(2) Year Completed	
		Professional Services 2004	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for the study and recommendation of supplying raffinate and removing PLS from the Test Heap Leach, which was located at the bottom of the pit. Responsible for the engineering and design of the aeration system that was installed at the bottom of the heap. Also engineered and designed the raffinate distribution system at the top of the heap and PLS removal systems for removing PLS from the bottom of the heap and pumping PLS from the bottom of the pit.		
		<input type="checkbox"/> Check if project performed with current firm	
3)	(1) TITLE AND LOCATION (City and State) Pinto Valley Operations, Selection/ Definition Study; Miami, Arizona	(2) Year Completed	
		Professional Services 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Provided multi-discipline engineering and technical management, estimating and schedule development, and preparation of the Selection/Definition Study for restarting the Pinto Valley open-pit mine and processing operations.		
		<input checked="" type="checkbox"/> Check if project performed with current firm	
4)	(1) TITLE AND LOCATION (City and State) Resolution Copper Mine; Superior, Arizona	(2) Year Completed	
		Professional Services 2006	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for the design, procurement, and construction of the underground mines dewatering systems. Responsible for the design, procurement, and construction of several miscellaneous underground development mining projects and studies.		
		<input type="checkbox"/> Check if project performed with current firm	
5)	(1) TITLE AND LOCATION (City and State) Pinto Valley Operations; Arizona	(2) Year Completed	
		Professional Services 2007 - 2008	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for the assessment, scoping, budgeting, and detailed design of components for re-starting 60,000 tpd copper concentrator.		
		<input type="checkbox"/> Check if project performed with current firm	

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

a. NAME Mary Shewmaker		b. ROLE IN THIS CONTRACT Mining		c. YEARS EXPERIENCE	
				1. TOTAL 30	2. WITH CURRENT FIRM 2
d. FIRM NAME AND LOCATION (City and State) Stantec (Tempe, Arizona)					
e. EDUCATION (DEGREE AND SPECIALIZATION) • BS, Mechanical Engineering, Michigan Technological University, Houghton, Michigan, 1981			f. 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) Pinto Valley Operations, Selection/ Definition Study; Miami, Arizona	(2) Year Completed	
		Professional Services 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Performed field evaluations of mine site equipment and provided recommendations for modifications and/or replacement equipment as required. Coordinated multi-discipline engineering, technical management, estimating, and schedule development activities required to complete the Selection/Definition Study for restarting the Pinto Valley open-pit mine and processing operations.		<input checked="" type="checkbox"/> Check if project performed with current firm
2)	(1) TITLE AND LOCATION (City and State) Cortez Hills – Feasibility Study; Lander County, Nevada	(2) Year Completed	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Team leader on the development of a Feasibility Study report to evaluate the expansion of an existing mine in accordance with the client's guidelines. Prepared specifications for major equipment, and reviewed mechanical system and general site layout drawings. Developed a construction schedule and reviewed estimates relative to the capital and operating costs for the mine expansion. Prepared and edited report sections to convey analysis and recommendations for the site design and equipment.		<input checked="" type="checkbox"/> Check if project performed with current firm
3)	(1) TITLE AND LOCATION (City and State) Pinto Valley Operations; Miami, Arizona	(2) Year Completed	
		Professional Services	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for evaluation of the safety, integrity, and acceptable loading guidelines for numerous components on site at this 54,000 tpd copper concentrator facility. Prepared a report with guidelines for utilization of the components, in addition to documenting safety related recommendations on site.		<input type="checkbox"/> Check if project performed with current firm
4)	(1) TITLE AND LOCATION (City and State) Copper Mine; Bagdad, Arizona	(2) Year Completed	
		Professional Services	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for estimating and scheduling for a new pit dewatering system for Phelps Dodge's Bagdad operations. Design included a new pipeline, as well as multiple pumps stations for conveying of slurry copper concentrate, and two additional platforms.		<input type="checkbox"/> Check if project performed with current firm
5)	(1) TITLE AND LOCATION (City and State) Pinto Valley Operations, EPCM – Phase I; Miami, Arizona	(2) Year Completed	
		Professional Services 2012 - 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Team leader on the development of a Feasibility Study report to evaluate the expansion of an existing mine in accordance with the client's guidelines. Prepared specifications for major equipment, and reviewed mechanical system and general site layout drawings. Developed a construction schedule and reviewed estimates relative to the capital and operating costs for the mine expansion. Prepared and edited report sections to convey analysis and recommendations for the site design and equipment.		<input checked="" type="checkbox"/> Check if project performed with current firm

**RFQ# ADSP014-00003465, Annual Request for Qualifications and Experience
REVISED - Attachment I – General Qualifications**

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) Maricopa County On-Call Plan Review and Inspection Services ; Maricopa County, Arizona	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2001 - Ongoing	CONSTRUCTION (If applicable) Ongoing

23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER Maricopa County	d. DOLLAR AMOUNT OF PROJECT Various	e. TOTAL COST OF PROJECT Various
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

- Services**
- Plan Review
 - Inspection

Description

Stantec currently serves as Building Official Consultant for approximately 20 cities, towns, counties, and Native American communities throughout Arizona, including Maricopa County, where we provide a combination of building code consulting, inspections, management, and plan review services. Our team of skilled plan review and inspection experts have been working with the county for more than a decade, working on numerous projects throughout the County, including several high profile projects, such as the Abener Teyma Solana Solar Plant and the Maricopa County Court Tower.

Project that our team have provided plan review and inspection services for include:

Abener Teyma Solana Solar Plant.....	\$2,100,000,000
Maricopa County Court Tower.....	\$340,000,000
Badger Solar I.....	\$32,000,000
Gillespie Solar I.....	\$18,000,000
APS Saddle Mountain Solar Station.....	\$9,000,000
Pegasus LDS Ward.....	\$2,000,000
S.E. Detention Facility.....	\$9,900,000
Dreaming Summit Elem. School – Litchfield Park.....	\$5,700,000
Wigwam Creek Elementary School – Litchfield Park.....	\$5,100,000
Tuscani Point Retail Shops - Carefree.....	\$3,900,000

**RFQ# ADSP014-00003465, Annual Request for Qualifications and Experience
REVISED - Attachment I – General Qualifications**

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 <i>(City and State)</i> ADOT Truck Weigh and Credential Processing Facility – Mariposa Land Port of Entry; Nogales, Arizona	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2010 - 2011	CONSTRUCTION <i>(If applicable)</i>

23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER Arizona Department of Transportation	d. DOLLAR AMOUNT OF PROJECT \$3.2 M (Construction Value)	e. TOTAL COST OF PROJECT \$3.2 M (Construction Value)
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

Services

- Architecture
- Civil Engineering
- Environmental Assessments, Permitting, and Compliance
- Special Systems
- Structural
- M/P/E
- Fire Protection
- Survey
- Transportation Design
- Traffic Operations



Description

Stantec provided full design and construction administration services for this improvement project which includes seven processing booths; a new administration building at the existing Arizona State Inspection Facility; dynamic message sign; slow speed weigh-in motion scales; new Portland cement concrete paving; storm drain; and ancillary water, sewer, fire suppression, electrical, data, and communications infrastructure. There are seven new Credential Booths consisting of Level 3 security protection, including bullet-proof glazing and siding. The new Administration Permits building is a 4,000 SF facility that also has Level 3 protection. The facility houses the administrative offices for the ADOT Port Director, a staff of officers, and support. It consists of offices, payment transaction lobby, 24 work stations, restrooms, lockers, and break room areas.

The site is ADA accessible and has parking for 35 vehicles, as well as bicycle, alternative fuel vehicles, and electric vehicles. All work for this facility, including full civil, architectural, structural, mechanical, plumbing, electrical, special systems, and fire protection, was performed in-house. Additionally, there were full time construction administration staff to assist with code compliance, field changes, special structural inspections, change orders, and pay applications. The project was designed to meet LEED® Silver certification and 10% alternative energy consumption.

**RFQ# ADSPO14-00003465, Annual Request for Qualifications and Experience
REVISED - Attachment I – General Qualifications**

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) Fool Hollow Dam; Show Low, Arizona	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2006 - 2007	CONSTRUCTION (If applicable)
23. PROJECT OWNER'S INFORMATION		
c. PROJECT OWNER Arizona Game and Fish Department	d. DOLLAR AMOUNT OF PROJECT \$120,000 (fee value)	e. TOTAL COST OF PROJECT \$120,000 (fee value)

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

Services

- Hydrology
- Spillway Hydraulics
- Design for Rehabilitation
- Permitting Assistance

Description

Stantec performed a dam hazard classification study, including dam breach analysis and downstream flood inundation mapping, for the Arizona Game and Fish Department, which was approved by the Arizona Department of Water Resources (ADWR). The analysis resulted in the adoption of the 0.5 Probable Maximum Flood (PMF) as the inflow design flood rather than the full PMF for the dam.

Our services included the review and revision of the hydrology to evaluate the reservoir freeboard and spillway. We prepared alternatives for improvements to the dam and conducted a dam break analysis of the dam and other upstream and downstream dams, including Show Low Lake, Rainbow Lake, Scott Reservoir, Lone Pine Reservoir, and Schoen's Dam. Finally, we coordinated with the ADWR Dam Safety branch.

Flood hydrology of the 110-square-mile watershed was also prepared for the 72-hour general storm, six-hour local storm, and a critically centered six-hour local storm. Unique aspects of this project were the inclusion of four upstream reservoirs in the flood hydrology and identification of alternatives for raising the crest of the dam to provide adequate freeboard with minimum disturbance while improving maintenance access to the dam crest.

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 <i>(City and State)</i> Mariposa Land Port of Entry (POE) Expansion and Modernization; Nogales, Arizona	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2010 - Ongoing	CONSTRUCTION <i>(If applicable)</i>

23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER GSA Pacific Rim Region	d. DOLLAR AMOUNT OF PROJECT \$156 M (Construction Value)	e. TOTAL COST OF PROJECT \$156 M (Construction Value)
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

Services

- Grading and Earthworks
- Infrastructure Design and Rehabilitation
- Intelligent Transportation Systems
- Civil/Site Development
- Stormwater Management
- Land Surveying
- Traffic Signals and Signage
- Water Storage Facilities
- Land Acquisition Mapping
- Building Information Modeling (BIM)
- Communication Systems
- Transportation
- Utility
- Drainage



Description

Stantec is completely redesigning the extremely constrained Mariposa Land POE site. We are responsible for design for the demolition of the existing facilities (43-acre site) and expansion (12.6 acres) necessary to accommodate the growth in cross border traffic.

The main issue for port expansion projects is space, and in Nogales, the existing port abuts Mexico on a steep plateau. To effectively expand the footprint, over one-mile of retaining wall and 600,000 cubic yards of imported fill were implemented to overcome a 50-foot fall to the adjacent valley floor. The heart of the compound will be completely reconstructed, including nine buildings and over a mile each of storm/sanitary sewer and potable water infrastructure. We developed a four-phase construction plan that allows continuous port operations with minimal disruptions. We also identified the various constraints that must be addressed, including environmental/permitting issues and those that are a result of the surrounding terrain (e.g., waters of the US, 50-foot fills, border wall/fence).

We are continuously communicating with the client, US General Services Administration, and all key stakeholders, including the Department of Homeland Security, Customs and Border Protection, US Department of Agriculture, Food and Drug Administration, US Army Corps of Engineers, Santa Cruz County Flood Control District, City of Nogales, Federal Motor Carrier Safety Administration, and Arizona Department of Transportation.

**RFQ# ADSP014-00003465, Annual Request for Qualifications and Experience
REVISED - Attachment I – General Qualifications**

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) Luke Air Force Base On-Call Engineering Services (Wastewater, Water, Stormwater, Planning); Glendale, Arizona	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable)

23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER Luke Air Force Base	d. DOLLAR AMOUNT OF PROJECT Various	e. TOTAL COST OF PROJECT Various
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

Services

- Water
- Sewer
- Pollution Prevention
- Land Use Planning
- Site Development
- Facility Space Utilization Optimization Studies
- Architecture
- Structural
- Roadway Layout and Design
- M/P/E
- Energy Audits
- Construction Oversight

Description

Stantec has provided a full range of services to Luke AFB since 1988 through on-call contracts. Some of our projects have included:

- [Luke AFB Sewer Study](#) – Identified potential, excessive influent inflow during storm events at WWTF, identified general condition of the sewer collection system through manhole inspection of 20% of the 240 manholes, and surveyed rim and invert elevations of 200 manholes to verify impacts to collection system from low-term ground subsidence.
- [Luke AFB Water Study](#) – Includes water model verification for the two-square mile water system and calibration of the water model.
- [Luke AFB 400 and 900 Area Chill Facilities Design](#) – Prepared an Energy Evaluation Study that demonstrated constructing two central chill facilities in the southern (900) and northern (400) areas of the base would improve energy efficiency.
- [Luke AFB Water Storage Tank and Arsenic Treatment System](#) – Prepared an Engineering Solutions Report and preliminary design for a new 500,000-gallon concrete ground storage tank, a 1.6 MGD arsenic treatment system, a 1,530 gpm pump station, and a chlorine injection system for the Base's high pressure potable water system.

6. ADDITIONAL INFORMATION

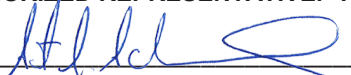
a. PROVIDE ANY ADDITIONAL INFORMATION YOU FEEL MAY BE NECESSARY TO DESCRIBE YOUR FIRMS QUALIFICATIONS. (ATTACH ADDITIONAL SHEETS AS NEEDED.)

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:	30%
b. Percentage of Total Work Attributable to Non-Government Work:	70%

Information represents combined revenue from Stantec's Arizona offices (Phoenix, Tempe, Tucson).

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

Signature: 

Date: December 12, 2013

Name: Scot Schlund, PE

Title: Principal



Stantec Consulting Services Inc.
8211 South 48th Street; Phoenix, Arizona 85044

December 12, 2013

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

Reference

Annual Professional Services List, Solicitation Number: #ADSP013-00002112

Dear Mr. Duval,

On behalf of Stantec, I am pleased to submit our qualifications to continue to provide various engineering services to the Arizona Department of Administration and other State agencies under this contract. We have provided a brief overview of our qualifications in the Additional Information submitted in a separate document, including relevant experience, key staff members, and project management approach.

Our people are our most important competitive resource, ultimately determining our reputation and vitality. We respect and value input and opinion, and encourage self-improvement, innovation, creativity, and entrepreneurship. Teamwork is fundamental to our culture and we take pride in each other's achievements. Stantec has over 350 experienced personnel in our Phoenix, Tempe, and Tucson offices. With these extensive staff resources, Stantec can cover each area of the State to support any agency that may use this on-call contract.

Having performed similar types of "on-call" technical services for other clients over the years, Stantec is very familiar with the unique requirements of this type of contract. Our repeat and continuous services to our clients, including the State of Arizona, illustrates our success in providing quality consulting services in a coordinated, total service environment. We have provided consulting services on an annual, on-call basis to numerous agencies, including:

- Arizona Department of Administration
- Arizona Game and Fish Department
- Arizona Department of Transportation
- Arizona Department of Environmental Quality
- Maricopa County Facilities Management Department
- Maricopa Community College District
- Cities of Phoenix, Tempe, Chandler, Scottsdale, Gilbert, Flagstaff, Tucson, and Sierra Vista
- Luke Air Force Base
- Pima, Pinal, Maricopa and Yuma counties
- Salt River Project
- Roosevelt Irrigation District
- Arizona State University, Northern Arizona University and University of Arizona

Thank you for considering our qualifications to provide statewide services under this on-call contract. We look forward to working with ADOA on the various projects. If you have any questions or wish to discuss any aspect of our proposal in more detail, please feel free to call.

Sincerely,
Stantec Consulting Services Inc.

Scot Schlund, PE
Managing Senior Principal
Tel: (602) 707-4651
scot.schlund@stantec.com

STANTEC CONSULTING SERVICES INC.

The Stantec community unites more than 13,000 specialists working in over 200 locations. We collaborate across disciplines and industries to make buildings, infrastructure, and energy and resource projects happen. Our work—professional consulting in planning, engineering, architecture, interior design, landscape architecture, surveying, environmental sciences, project management, and project economics—begins at the intersection of community, creativity, and client relationships.

Since 1954, our local strength, knowledge, and relationships, coupled with our world-class expertise, have allowed us to go anywhere to meet our clients' needs in more creative and personalized ways. With a long-term commitment to the people and places we serve, Stantec has the unique ability to connect to projects on a personal level and advance the quality of life in communities across the globe.

OFFICE LOCATIONS

Stantec has fully staffed offices in Phoenix, Tempe, and Tucson. With over 300 Arizona based staff, Stantec can quickly and efficiently respond to all issues associated with a potential project regardless of location. Stantec has operated in Arizona since 1991, with experience via acquisition dating back much further. We have worked with almost every public organization in the State and are very familiar with the local labor and materials markets.



Phoenix Office: 169 staff

- Architecture
- Drainage and Irrigation
- Electrical Engineering
- Mechanical Engineering
- Environmental Services
- Landscape Architecture
- Surveys & Geomatics
- Aviation
- Roadways
- Transit
- Urban Development
- Water & Wastewater



Tucson Office: 35 staff

- Drainage
- Electrical Engineering
- Mechanical Engineering
- Surveys & Geomatics
- Roadways
- Traffic Engineering
- Rail & Transit
- Urban Development
- Water & Wastewater



Tempe Office: 131 staff

- Mining Engineering
- Electrical Engineering
- Mechanical Engineering
- Structural Engineering

Relevant Project Experience

The following representative projects exemplify our experience in the services and project types requested by ADOA and listed in the Qualifications Form. As shown in our Introduction Letter, Stantec has worked with numerous agencies across Arizona on similar “on-call” contracts.

Architecture

Green Schoolhouse – Safari; Phoenix, Arizona

- Architecture
- Landscape Architecture
- Rendering Services
- LEED Submittal
- Code Review
- BIM

The purpose is to provide a 21st century sustainable educational facility and as a gift and resource to a well deserving low income community. Several schools submitted an application for this gift and after an interview process Roadrunner Elementary School was selected.

Roadrunner Elementary School was originally constructed in the 1970s and serves approximately 750 students. The single story school includes several buildings and has very few windows. It is a very traditional double loaded corridor facility that is minimalistic in its design. The architecture does not provide inspirational educational space. The staff at the school have made the facility more inspiring by developing things such as a vegetable garden, outdoor learning areas and painting inspirational quotes within the building.

The vision for the Safari Green School House is to allow the students to take an educational safari. As they make a transition from their existing school buildings to the Green School House they will experience inspiring spaces that are filled with natural light, creating a connection to nature and setting the stage for an adventure of discovery in education. The Green School House will be 6,291 GSF/5,661 NSF and will include: an indoor large multi-purpose room; library; teaching kitchen; computer lab; science, technology, engineering and math (STEM) classroom; health/wellness room, outdoor fitness/play area, student green garden, and two outdoor learning classroom gardens.

Sustainability and a connection to nature will be infused into the design in an effort to provide a learning opportunity through experiencing the building. The community will enter through an educational garden that will include native vegetation. Large windows will be located on the North elevation to allow diffused natural light to penetrate the learning environment. Storm water will be conveyed through a free flowing gutter into a catchment area and bio swale. Energy generation will

be provided through photovoltaic panels and an energy efficient heating and cooling system will be incorporated. A digital dashboard will be installed so that students can monitor energy generation and usage. The building will be submitted to USGBC with the goal of LEED platinum.

ADOT Truck Weigh and Credential Processing Facility – Mariposa Land Port of Entry; Nogales, Arizona

- Architecture
- Civil Engineering
- Environmental Assessments, Permitting, and Compliance
- Special Systems
- Structural
- M/P/E
- Fire Protection
- Survey
- Transportation Design
- Traffic Operations

Stantec provided full design and construction administration services for this improvement project which includes seven processing booths; a new administration building at the existing Arizona State Inspection Facility; dynamic message sign; slow speed weigh-in motion scales; new Portland cement concrete paving; storm drain; and ancillary water, sewer, fire suppression, electrical, data, and communications infrastructure. There are seven new Credential Booths consisting of Level 3 security protection, including bullet-proof glazing and siding. The new Administration Permits building is a 4,000 SF facility that also has Level 3 protection. The facility houses the administrative offices for the ADOT Port Director, a staff of officers, and support. It consists of offices, payment transaction lobby, 24 work stations, restrooms, lockers, and break room areas.

The site is ADA accessible and has parking for 35 vehicles, as well as bicycle, alternative fuel vehicles, and electric vehicles. All work for this facility, including full civil, architectural, structural, mechanical, plumbing, electrical, special systems, and fire protection, was performed in-house. Additionally, there were full time construction administration staff to assist with code compliance, field changes, special structural inspections, change orders, and pay applications. The project was designed to meet LEED Silver certification and 10% alternative energy consumption.

91st Avenue Wastewater Treatment Plant Re-Roofing; Phoenix, Arizona

- Civil Engineering
- Mechanical Engineering
- Electrical Engineering
- Permitting

Stantec provided full design, permitting, construction administration, and inspection services for the re-roofing of the City of Phoenix 91st Avenue Wastewater Treatment Plant control building. The project included new rooftop HVAC units with electrical service and roof drains to current codes.

Engineering

Little Colorado River Basin Water Yield; Arizona

- Hydrologic Modeling
- Streamflow Simulation
- STATEMOD Modeling
- Water Rights

As a result of the Zuni Settlement Agreement, the Arizona Game and Fish Department (AGFD) is required to sever and transfer water rights to surface water in the Little Colorado River for use by the Zuni Tribe. Water rights in the basin are administered by the Apache County Superior Court in accordance with the Norviel Decree of 1918, 1921 and 1923. In support of AGFD, Stantec's services include verification of AGFD held water rights in the Basin, quantification of all water rights in the Basin and long-term historic simulation of the system management, identification of severance and transfer strategies, and simulation of those strategies. System management simulation is accomplished using STATEMOD. The STATEMOD model is derived from a spatial database of the water rights documenting the point of diversion, place of beneficial use, priority and decreed allotment. Inflow hydrology to the system is estimated from gage data and historic rainfall records. The STATEMOD model is calibrated to historic streamflow records in the Basin. The model will be used to identify existing AGFD water rights that can be severed and transferred to the Zuni Tribe and/or to identify potential private properties within the Basin that can be purchased by the AGFD for severance and transfer of the water rights.

Black Canyon Lake Dam; Navajo County, Arizona

- Hydrology
- Spillway Hydraulics
- Design for Rehabilitation
- Permitting Assistance

Stantec worked with the Arizona Game and Fish Department to modify the Black Canyon Lake Dam and spillway to accommodate increased runoff due to watershed burn and pass the Probable Maximum Flood (PMF), as well as address all NEPA compliance issues. The watershed of this reservoir was involved in the Rodeo-Chedeski fire of 2002 with a mosaic burn of

differing intensities, which increased the runoff coefficient of the watershed. The PMF is considerably larger than the designed 100-year flood. The improvements must accommodate a peak PMF flow of 21,300 cfs.

Black Canyon Lake Dam is of earthen construction, 420 feet long with a crest width of 24 feet and volume of 1,580 acre feet. The elevation is 7,075 feet, and the dam is 68 feet high. The emergency spillway is a concrete lined chute with a 40-foot wide sill that narrows to 20 feet in the chute and ends in a 50-foot stilling basin. A filter diaphragm to the outlet conduit was designed according to NRCS criteria. The embankment was raised, the spillway enlarged and replaced, and other dam safety improvements were made to the dam.

Fool Hollow Dam; Show Low, Arizona

- Hydrology
- Spillway Hydraulics
- Design for Rehabilitation
- Permitting Assistance

Stantec performed a dam hazard classification study, including dam breach analysis and downstream flood inundation mapping, for the Arizona Game and Fish Department, which was approved by the Arizona Department of Water Resources (ADWR). The analysis resulted in the adoption of the 0.5 Probable Maximum Flood (PMF) as the inflow design flood rather than the full PMF for the dam.

Our services included the review and revision of the hydrology to evaluate the reservoir freeboard and spillway. We prepared alternatives for improvements to the dam and conducted a dam break analysis of the dam and other upstream and downstream dams, including Show Low Lake, Rainbow Lake, Scott Reservoir, Lone Pine Reservoir, and Schoen's Dam. Finally, we coordinated with the ADWR Dam Safety branch.

Flood hydrology of the 110-square-mile watershed was also prepared for the 72-hour general storm, six-hour local storm, and a critically centered six-hour local storm. Unique aspects of this project were the inclusion of four upstream reservoirs in the flood hydrology and identification of alternatives for raising the crest of the dam to provide adequate freeboard with minimum disturbance while improving maintenance access to the dam crest.

Lynx Lake Dam and Spillway Modifications; Prescott, Arizona

- Hydrology
- Spillway Hydraulics
- Design for Rehabilitation
- Permitting Assistance

Stantec provided the engineering and construction observation services necessary to increase the spillway. The Phase I National Dam Safety Investigations determined that the dam had an inadequate spillway to pass the inflow design flood, which is the PMF for this high hazard dam. Subsequently, ADWR required the dam owner to increase spillway adequacy for the PMF. We conducted

the first site-specific Probable Maximum Precipitation for the PMF assessment that was performed in Arizona and approved by the ADWR.

As a result of this study, a 20% reduction in required spillway capacity was achieved. We performed an alternatives study to determine the optimum spillway enlargement and embankment raise to pass the inflow design flood. We designed the dam and spillway modifications to meet ADWR safety requirements, performed the environmental compliance for an environmentally sensitive area, and performed the construction engineering services.

The final design included the spillway enlargement, raising the crest of the embankment, replacing upstream slope erosion protection, recreational enhancements, geotechnical studies, surveying, mapping, environmental compliance, and permitting.

Mariposa Land Port of Entry (POE) Expansion and Modernization; Nogales, Arizona

- Grading and Earthworks
- Infrastructure Design and Rehabilitation
- Intelligent Transportation Systems
- Civil/Site Development
- Stormwater Management
- Land Surveying
- Traffic Signals and Signage
- Water Storage Facilities
- Land Acquisition Mapping
- Building Information Modeling (BIM)
- Communication Systems
- Transportation
- Utility
- Drainage

Stantec is completely redesigning the extremely constrained Mariposa Land POE site. We are responsible for design for the demolition of the existing facilities (43-acre site) and expansion (12.6 acres) necessary to accommodate the growth in cross border traffic.

The main issue for port expansion projects is space, and in Nogales, the existing port abuts Mexico on a steep plateau. To effectively expand the footprint, over one-mile of retaining wall and 600,000 cubic yards of imported fill were implemented to overcome a 50-foot fall to the adjacent valley floor. The heart of the compound will be completely reconstructed, including nine buildings and over a mile each of storm/sanitary sewer and potable water infrastructure. We developed a four-phase construction plan that allows continuous port operations with minimal disruptions. We also identified the various constraints that must be addressed, including environmental/permitting issues and those that are a result of the surrounding terrain (e.g., waters of the US, 50-foot fills, border wall/fence).

We are continuously communicating with the client, US General Services Administration, and all key stakeholders, including the Department of Homeland Security, Customs and Border Protection, US Department of Agriculture, Food and Drug Administration, US Army Corps of Engineers, Santa Cruz County Flood Control District, City of Nogales, Federal Motor Carrier Safety Administration, and Arizona Department of Transportation.

Gila County Shop and Roads Facility; Globe, Arizona

- Architecture
- Structural
- Mechanical Engineering
- Plumbing
- Electrical Engineering
- Fire Protection

Stantec provided engineering services for a 10,800 SF, pre-engineered metal shop and office building to house both the Shop and Roads Departments for Gila County. One of the project's successful components was our ability to coordinate with the County's on-call civil engineer for the 10-acre site that included an administrative complex designed by another firm. We worked with both teams to produce construction documents that were consistent between the two projects both in content and presentation.

The shop facility contained five vehicle bays for heavy equipment, including one equipped with embedded steel rails for tracked equipment. A weld shop and tire shop were designed on the end of the vehicle bays, with a separate 2,000 SF office space on the first floor with a public access for the Roads Department.

Working closely with Gila County, we identified salvageable equipment in the existing facility. The gasoline and diesel dispensing system was also relocated to the new site. It is envisioned that photovoltaic panels will be placed on the roof to reduce Gila County's energy cost.

We also provided a "stand-alone" underground package to allow the site contractor to begin work under a separate contract prior to completion of the building design. The project budget for the total site was \$2.4 million.

22nd Street Drainage Study; Phoenix, Arizona

- Hydrologic and Hydraulic Analyses
- Alternatives Analyses
- Preparation of Cost Estimates

Stantec provided a design concept report of a local flooding problem for the City of Phoenix. The project included hydrologic and hydraulic analyses, alternative analyses, and preparation of cost estimates.

Crystal Creek Apartments Drainage Study; Phoenix, Arizona

- Hydrologic and Hydraulic Analyses
- Alternatives Analyses
- Preparation of Cost Estimates

Stantec provided a design concept report of a local flooding problem for the City of Phoenix. The project included hydrologic and hydraulic analyses, alternative analyses and preparation of cost estimates for each alternative.

SOLON Photovoltaic Test Facility; Tucson, Arizona

- Civil Engineering
- Structural Engineering
- Electrical Engineering
- Hydrology
- Landscape Architecture
- Survey

Stantec provided engineering services for a photovoltaic panel test facility located within a two-acre stormwater retention basin. The design team worked with the City of Tucson Development Services Department to define the specific requirements for the construction of the project.

The test facility included fixed, single-axis, and two-axis tracking systems. Since construction within the retention basin is prohibited by the City of Tucson Flood Control Ordinance, our engineers designed a plan to construct the PV test facility on piers in order to maintain the existing volume of the basin. We presented the plan to the City for review and approval prior to commencing design. This innovative approach was approved by the City and provided the Owner with confidence moving into the design phase. The electrical system was modular in design to allow for the repeated removal and replacement of panels as new products are being tested.

City of Scottsdale Energy Analysis; Scottsdale, Arizona

- Building Energy Audits

Stantec worked with the City of Scottsdale to perform energy audits for 29 buildings totaling 912,500 SF. Our approach for these audits was simple: Analyze, Adapt, and Advance. First, we conducted a detailed energy audit of the facilities. This audit, the Analyze portion of our approach, involved the review of general building information, such as construction type, use, and hours of operation. The review included the following: system identification, configuration, and condition; indoor air quality at specific locations; HVAC equipment performance and condition; tenant imposed HVAC system loads; electrical load and capacity; outside air requirements and potential future requirements; and energy management system and control system components and potential modifications. We also interviewed City operations personnel regarding performance of building systems and review utility consumption history.

The audit identified the energy conservation potential, catalogued existing energy performance and end-uses (baseline conditions), and generated a list of Energy Conservation Measures (ECM) that can be implemented. A description of the work, opinion of probable costs, annual energy saving potential per system, and expected economic return in the aforementioned report were documented for each ECM.

A final report summarized the resource, financial, and environmental findings and recommendations. This constitutes the Adapt and Advance phases of our approach. The Adapt phase occurs when our recommendations are implemented, and the Advance phase is the documentation of the reduction in energy consumption at each facility.

Luke Air Force Base On-Call Engineering Services (Wastewater, Water, Stormwater, Planning); Glendale, Arizona

- Water
- Sewer
- Pollution Prevention
- Land Use Planning
- Site Development
- Facility Space Utilization
- Optimization Studies
- Architecture
- Structural
- Roadway Layout and Design
- M/P/E
- Energy Audits
- Construction Oversight

Stantec has provided a full range of services to Luke AFB since 1988 through on-call contracts. Some of our projects have included:

- [Luke AFB Sewer Study](#) – Identified potential, excessive influent inflow during storm events at WWTF, identified general condition of the sewer collection system through manhole inspection of 20% of the 240 manholes, and surveyed rim and invert elevations of 200 manholes to verify impacts to collection system from low-term ground subsidence.
- [Luke AFB Water Study](#) – Includes water model verification for the two-square mile water system and calibration of the water model.
- [Luke AFB 400 and 900 Area Chill Facilities Design](#) – Prepared an Energy Evaluation Study that demonstrated constructing two central chill facilities in the southern (900) and northern (400) areas of the base would improve energy efficiency.
- [Luke AFB Water Storage Tank and Arsenic Treatment System](#) – Prepared an Engineering Solutions Report and preliminary design for a new 500,000-gallon concrete ground storage tank, a 1.6 MGD arsenic treatment system, a 1,530 gpm pump station, and a chlorine injection system for the Base's high pressure potable water system.

Salt River Project Open-End Contract; Maricopa County, Arizona

- Planning
- Survey
- Design
- Raw Water Delivery Designs
- Canals and Gates
- Dam Rehabilitation and Design
- Pipelines and Stand Pipes
- Roof Evaluations
- Roof Rehabilitation

Stantec has completed more than 50 on-call projects for SRP since the late 1980s. Services include planning, surveying, designs, and plans for the relocation of SRP laterals and drainage channels into new open alignments or buried pipelines to accommodate land development and/or major streets and highway improvements. Projects completed range in size from a few hundred feet to several miles in length. Representative projects include:

- [Baseline Road Widening Irrigation System Relocations](#) – Four miles of concrete pipe 24- to 30-inches in diameter; 15 delivery structures; 21 headwall structures; and 20 manhole structures.
- [Laveen Conveyance Channel](#) – 720 lf, 18-foot diameter ductile iron pipe; one broadcrested weir; one modified headwall structure with trashrack; and one pump can structure.
- [San Tan I-10 TI Irrigation System Relocations](#) – 1,720 lf, 24-inch concrete pipe; one headwall; four manholes.

Location of Growth, Urban Form, and Cost of Infrastructure Study – White Paper; Tucson, Arizona

- Land Planning
- Roads and Highways
- Transit
- Transportation Planning
- Urban Land Engineering
- Wastewater Treatment
- Water Treatment

Stantec worked with a team of City of Tucson and Pima County staff to examine the impacts of both the location and form of growth. We identified criteria to evaluate areas most suitable for future development, developed detailed GIS-based models of future growth scenarios, and outlined the most likely positive and negative aspects of various forms of development. We used benchmark data from other communities to analyze the pros and cons of various urban form patterns from a sustainability perspective. Four major scenarios were examined: the status quo, enhanced habitat protection, infrastructure efficient/taxpayer savings, and transit-oriented development. Four general infill and outlying growth areas were predicted.

The key finding from the report is that where and how we grow are important, and the City and County can plan for future growth in a way that is more sustainable than the status quo. How and where we grow impact a variety of factors, including how much infrastructure we need to build,

the cost of public services and tax levels, water consumption, public health/walk ability, driving distances versus viability of public transit, energy consumption, greenhouse gas emissions, and housing choice and diversity.

Southwest Infrastructure Plan, Phase I and II; Pima County, Arizona

- Community Planning
- Feasibility Study
- Financial Analysis
- Flood Control and Drainage Management
- Geographic Information Systems (GIS)
- Infrastructure and Management Master Plans
- Master Drainage Planning
- Opportunity/Constraint Analysis
- Ownership & Operations Models
- Partnership Arrangements
- Procurement Models & Processes
- Recreation Master Planning & Development
- Regional Planning

Stantec provided planning services to initiate the Southwest Infrastructure Plan (SWIP), which quantified the nature, phasing, financial impacts, and funding possibilities for flood control, recreation, wastewater infrastructure, and other improvements that are necessary to service future saturation growth within the study area. The 71-square-mile project area is generally bounded by Tucson Mountain Park to the north, Mission Road to the east, the Tohono O’odham Nation/San Xavier District to the south, and Sandario Road to the west.

The plan leveraged extensive input from Pima County agencies, and proceeded in concert with a transportation planning component prepared by others. Envisioned products (phased infrastructure plans, estimates of probable cost, and funding analysis outputs), from this work will serve to collaboratively develop and evolve an infrastructure planning process suitable for deployment elsewhere in the County. Phase II of this project incorporated a sustainability assessment of the plan.

Nogales International Wastewater Treatment Plant; Nogales, Arizona

- Wastewater
- Odor Control
- Instrumentation and Controls
- Permitting
- Startup and Commissioning
- Flood Control
- Site Development
- Architecture
- Structural
- M/P/E
- Construction Oversight

The project budget was particularly tight given the client’s requirements of less than \$5/gallon to construct a 14.74 MGD facility in a market where capacity of that size is typically constructed for \$10/gallon.

Stantec teamed with PCL to provide design-build services for the 14.74 MGD upgrade of the Nogales International Wastewater Treatment Plant. The original lagoon based plant did not meet federal effluent limits and was negatively impacting aquatic life in the Santa Cruz River. A number of local citizens and environmental groups had been monitoring the river for years and raised the issue of river quality with the City of Nogales. The city and IBWC had tried several times over the last 10 years to construct a new plant via conventional design-bid-build; however, bid prices consistently exceeded the engineer's estimate and project budget. The project completed by PCL and Stantec delivered this much needed facility both ahead of schedule and on budget.

The project's impact upon the community has been immediate. Follow-up sampling in the river indicates a number of fish species have now returned to the area in the vicinity of the effluent discharge. In addition, many of the citizen and environmental groups who monitor the river have complimented the plant operators on the effluent quality and significant improvement in the river's health.

The project, designed in a compressed six month schedule, included decommissioning of the existing detritors and replacement with vortex grit tanks, 6 mm screens downstream of the existing 25 mm coarse screens, biofilters for plant wide odor control, and three secondary process trains for nitrification and denitrification. Our design accommodated a two-stage construction sequence allowing PCL to build the clarifiers and aeration basins under ideal groundwater conditions reducing dewatering requirements with significant cost savings.

El Rio Watercourse Master Plan and Area Drainage Master Plan; Maricopa County, Arizona

- Environmental
- Hydrologic and Hydraulic Analyses
- Permitting
- Flood Control
- Stormwater Management

The master plan is an evolutionary, living document that provides a framework for enhancing and preserving the river, and a path for development that ensures public safety and flood control strategies are sustainable and environmentally sensitive, while staying responsive to current, local realities.

Stantec provided civil engineering, environmental management, and planning services for the El Rio Watercourse and Area Drainage Master Plan, which provides sustainable flood management solutions that conserve the natural environment and accommodate future growth along 18 miles of the Gila River. The Gila River watershed is the largest in the state contributing storm water runoff from approximately 45,000 square miles to the project area. Recently, the river has

experienced several large flood events resulting in significant damage to property and infrastructure. These events, along with other environmental issues and development pressures, threaten the river's ecosystem and surrounding open space.

The Stantec team used a regional approach to multi-use floodplain management strategies focusing on public safety, while still maintaining and enhancing the natural functions of the river. The master plan elements will cost \$150 million to fully implement over the anticipated 15-20 year build-out. Over 3,000 acres will be reclaimed from the floodplain, miles of trails will be constructed, several hundred acres of open space and open water will be created, and the local economy and quality of life for area residents will be greatly enhanced.

The project won four major industry awards in 2006, including the Valley Forward Environmental Excellence Awards, Crescordia Award; WESTMARC Best of the West Awards, Honor Award; Arizona Planning Association's State Planning Awards, Best Regional Plan; and American Council of Engineering Companies of Arizona, Honor Award.

Central Phoenix/East Valley Light Rail Transit Project - Line Section 3; Phoenix, Arizona

- Drainage
- Utilities
- Roadway Design
- Communications
- Survey
- Electrical Engineering
- Structural Engineering

Line Section 3, considered to be the most complex of the five sections, runs through downtown Phoenix and was the single largest construction contract issued by the City.

Stantec provided engineering services for approximately eight miles of track (double) for Line Section 3 of the Central Phoenix/East Valley Light Rail Transit project, a 20-mile starter system that links major business and commerce areas within the cities of Phoenix, Tempe, and Mesa.

Unlike other line sections, the track on this project is "in-street" running on one-way couplets, which meant twice the amount of design, significantly increasing design challenges. The single-track guideway was positioned asymmetrically to allow for property access on both sides while retaining the arterial roadway to one side. Instead of using conventional crossovers, loop tracks were implemented to connect the two tracks a block apart, furthering the complexity of both transit and street infrastructure systems. Several utilities had to be relocated out from under the guideway in an already congested area with scant record information. This required extensive field checks and coordination among the design teams and utility companies.

Vertical profiles for the street and guideway were critical to ensure positive drainage and retain existing drainage patterns. We used a unique "flow-through" guideway curb to keep stormwater from flooding adjacent properties. Several

subsurface buildings were discovered under or adjacent to the guideway, and our team identified unique solutions to protect the existing structures.

We continued on with design services during the construction of the project, assisting the constructor in expediting owner requested changes and resolving differing site conditions. As a result, the construction was completed on schedule in December 2008.

Plan Review/Code Compliance

Electronic Plan Review; Various Cities, Arizona

- Electronic Plan Review

Using specialized software, Stantec personnel are trained to review digital plans. We are currently providing Electronic Plan Review services to the Town of Gilbert, and cities of Tempe and Flagstaff, as well as private clients. These clients have found a number of significant benefits when compared to traditional review, including:

- Digital commenting directly on plans allows for more accurate and easier to understand mark ups;
- Reduction in paper use; and
- No courier or pickup/drop off fees.

This truly unique service has been embraced by the development community, as well as our municipal clients, for its ability to reduce costs and streamline the review process.

There is no additional cost for this new method of plan review.

Radisson Fort McDowell Resort & Casino; Fort McDowell, Arizona

- Plan Review
- Inspection

Stantec provided plan review and inspection services for this Radisson branded, four diamond, 250-room resort in Arizona. Civil engineering improvements reviewed included grading and drainage, drainage reports, paving, sewer, water, and storm drains. Building review included entry feature upgrades of a new three-lane facility, including a 220-foot-long bridge and the new RV resort with 150 RV spaces on three acres. All reviews and inspections were done in compliance with the Fort McDowell Yavapai Nation's adopted codes and standards.

University of Arizona Science & Technology Park (STP), Building 9052 Kitchen Exhaust Hoods; Tucson, Arizona

- Code Compliance Review
- Mechanical Engineering
- Electrical Engineering
- Fire Protection

Stantec provided mechanical, electrical, and fire protection design services for the design-build project involving the renovation of the existing exhaust hoods serving the cafeteria in building 9052 at the University of Arizona STP.

The project began with the review of the existing kitchen hood mechanical and electrical drawings for code compliance. We then performed mechanical design for a new bakery which included a convection oven and pot washer exhaust fans. Electrical design was done for the addition of a new section of motor control center and the addition of a new 200 amp, 120/208 volt, three-phase, 42 circuit panel board. We also provided electrical design on the control system for the kitchen exhaust fans and data/communication systems. Fire alarms, mechanical registers, and light fixtures were all replaced.

Geological

ADEQ Broadway Pantano WQARF Site; Tucson, Arizona

- Remedial investigation
- Feasibility study

The project commenced with initiation of a remedial investigation/feasibility study (RI/FS) at the Broadway-Pantano WQARF site where a PCE plume, over 1.5 miles long, had contaminated an aquifer that supplies drinking water used by the residents of Tucson. The source of the groundwater plume is the Broadway North Landfill, which was operated in the 1960s. Over a ten year period, Stantec was responsible for investigating the extent of contamination in groundwater and in the landfill source area. The project involved the installation of 23 groundwater monitoring wells up to 450 feet deep, geophysical logging, and sampling a network of 60 wells using discrete interval sampling methods to map the vertical characteristics of the plume. Using data from this work, a Health Risk Assessment and the RI for the Groundwater Operable Unit were completed in 2007. The RI for the Landfill Operable Unit was also completed. In addition to the RI, an important part of Stantec's responsibility at this site was oversight and critical evaluation of the design, groundwater modeling, and operation of an interim containment system designed to prevent downgradient migration of the groundwater plume.

Former Ted's Truck Stop; Quartzite, Arizona

- Preliminary Investigation
- Early Response Actions

Stantec is responsible for the ongoing preliminary investigation and early response actions under the direction of the ADEQ Remedial Projects Unit at the Former Ted's Truck Stop site located in Quartzite. The site is an inactive fueling facility that consists of multiple generations of above ground storage tanks, underground storage tanks, and fuel dispensing areas. The site is underlain by interlayered clay and sand and the depth to water is approximately 45 feet below ground surface. Stantec designed, built, and is currently operating and maintaining a remediation system that consists of 31 SVE wells, 14 wells with pumps, and 19 OS wells. A PLC has been installed at the site which allows remote monitoring and control of the system. The contaminants of concern are benzene, toluene, ethylbenzene, total xylenes, and liquid phase hydrocarbons (gasoline and diesel fuel). The remediation technologies include dual phase extraction, soil vapor extraction, ozone sparging, catalytic and thermal oxidation for vapor abatement, and activated carbon treatment for the groundwater effluent. The remediation system, which included 38 remediation wells, was started up in late January 2008 and to date over 60,000 pounds of petroleum hydrocarbons have been removed by the SVE system, over 1.8 million gallons of impacted water have been removed and treated, and over 125 gallons of FP have been removed.

Landscape Architecture

ADOT Statewide Rest Area Rehabilitation; Statewide, Arizona

- Civil Engineering
- Water/Wastewater
- Architecture
- M/P/E
- Landscape
- Architecture
- Construction
- Observation/
- Administration

Stantec provided engineering and construction phase services for the rehabilitation of numerous interstate rest areas throughout Arizona. Improvements included new ramps/parking areas, restroom buildings, information and vending kiosks, caretaker's residences, picnic shelters, pumphouses, mechanical and irrigation systems, site furnishings, hardscaping, and new well development.

Our landscaping design emphasized the use of the xeriscape design principles, including native and indigenous plant materials and low water use irrigation systems. The projects are all designed to be fully accessible and in compliance with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

Apache Neighborhood Park; Scottsdale, Arizona

- Hardscape Design
- Planning

Stantec provided site reconnaissance, planning, and design for utility and infrastructure upgrades, site grading and paving, and horizontal control for this 10-acre specialty park. Park improvements included the parking lot, restroom building, two picnic ramadas, children's playground, basketball courts, two multi-use fields, turf open space, pathways/neighborhood pedestrian connections, and native desert landscape/salvage/revegetation.

The restroom and ramadas design was based upon a cultural interpretation of historic Hohokam habitation of the Salt River Valley expressed through constructed "protected ruins". This theme utilized low "ruins" walls of stained concrete for the restroom building and site walls. The landscape design theme incorporated the context of the neighborhood's traditional landscape juxtaposed with the native Sonoran desert.

Land Surveying

ADOA 1000-Bed Prison Expansion; Various, Arizona

- Construction Staking
- As-builts

This project involved the 180,000-sf addition of 1,000-beds Level one (low security) dorm housing at multiple facilities around the State. The project included housing, grading drainage improvements along with associated site utilities and security improvements. This was a fast-track project that completed in five months and ahead of schedule. Stantec provided construction staking and as-builts at the Douglas and Perryville locations for McCarthy Builders. The architect was Arrington Watkins Architects.

ADOA 4000-Bed Prison Expansion; Various, Arizona

- Construction Staking
- As-builts

This project involved the 4,000-bed minimum security prison expansion with 2,000 beds in Yuma and 1,000 beds in Tucson and Perryville. The facilities include water storage at Tucson and Perryville, and a water and wastewater treatment plant in Yuma. The facilities also include complex kitchens and education and administration buildings along with grading drainage improvements and associated site utilities and security improvements. Stantec provided construction staking and as-builts at the Perryville location. The architect was Arrington Watkins Architects.

Metropolitan Domestic Water Improvement District (MDWID); Tucson, Arizona

- Topographical Surveys for Design
- Construction Staking
- Control Surveys
- As-builts
- Boundary Surveys and Legal Descriptions

Stantec was appointed in June 2009 as exclusive on-call surveyor for MDWID, to carry out all their construction layout, topographical surveys, well elevation surveys, and boundary work. The annual maximum is \$100,000 and they have recently renewed the contract for a fourth year. To date, twenty-six separate projects have been successfully completed under this contract.

ADOT I-10 Widening, Ruthrauff Road to Prince Road; Tucson, Arizona

- Construction Staking

This ongoing, 2-year project involves the widening of I-10 to four lanes in each direction, together with reconstruction of the Prince Road interchange, to take Prince Road over the freeway and adjacent railroad. In addition to the road widening, there are significant utility and drainage improvements as well as three bridge structures. Stantec is providing construction staking services for ADOT's General Contractor, Pulice Construction.

Environmental

B&C Colonia Environmental Assessment; Yuma County, Arizona

- Assessments, Permitting, and Compliance

This Environmental Assessment increased health and safety conditions within the B&C Colonia. Our Environmental Assessment (EA) described the impacts of three viable alternatives for providing wastewater service to 838 house lots on 512 acres that currently rely on septic tanks and outhouses in Yuma County. Known as B&C Colonia, the project area is under the jurisdiction of both the City of Yuma and Yuma County. A Colonia is an area that has substandard utilities or lacks utility service entirely. Prepared pursuant to the National Environmental Policy Act, the EA addressed the community's location, service area, population, topography, geology, climate, air quality, water resources, water quality, and environmental inventory. It determined potential direct and indirect impacts as a result of the chosen alternative, as well as mitigation measures to be considered.

City of Phoenix Phase I/Phase II ESA; Phoenix, Arizona

- Phase I Assessments
- Phase II Assessments

Stantec conducted Phase I & Phase II assessments at sites across Phoenix including a multi-parcel right-of-way acquisition project along 7th Avenue. This project involved the assessment of portions of 20 parcels that included residential, commercial and industrial properties. Additional assessments were conducted on residential and commercial parcels. Phase II assessments were conducted on parcels where recognized environmental conditions were identified and included soil sample collection and analysis.

Mining

Resolution Copper No. 9 Shaft Deep Well Pumping Project; East of Superior, Arizona

- Underground Mine Infrastructure
- Electrical Engineering
- Mechanical Engineering
- Structural Engineering

Stantec provided a unique approach to dewater a flooded mine, which enhanced safety and productivity during the mine restoration efforts. As an integral part of the underground mine recovery, we conducted extensive investigations and studies to determine the unique challenges associated with dewatering a mine of this nature safely and productively. In excess of 2.5 billion gallons of water was to be removed while sinking a new production shaft and refurbishing the old No. 9 shaft simultaneously. A mine dewatering schedule of two years was requested, which calculated to a required pumping rate of 2,500 usgpm, 24 hours per day. We used oilfield technology for the concept and provided the basic engineering required to construct a dual, deep well, multi-stage pumping system. The system was capable of providing higher flow rates than required and achieved dewatering past the mine working levels. The potential safety risk for the miners was alleviated due to the decreased threat of existing bulkhead failures. Stantec provided feasibility, conceptual design, basic engineering, and site services to support the initiative.

Training and State Standard Development

State Standard Detention/Retention Training Seminar; Arizona

- Training and Professional Development
- Knowledge of State Standards

Stantec developed a training course and PowerPoint presentation for the Arizona Department of Water Resources (ADWR) on State Standard 8-99 for stormwater detention/retention (various methods and models). Specific tasks included developing a course outline, creating the appropriate (PowerPoint) handouts, and conducting the training sessions. The course was presented in seven communities throughout Arizona.

State Standard Floodplain Issues in Transportation Design Training Seminar; Arizona

- Training and Professional Development
- Knowledge of State Standards

Stantec developed a training program for ADWR that included a course outline and PowerPoint presentation (including three example projects), and conducted four 8-hour training sessions throughout Arizona. The objective of the course is to present training to transportation designers and other applicable participants in the application of State Standards for Floodplain Management.

State Standard Floodplain/Floodway Delineation Training Seminar; Arizona and California

- Training and Professional Development
- Knowledge of State Standards (ADWR)

Stantec developed a training course for ADWR based on the State Standard for Requirement for Floodplain and Floodway Delineation in Riverine Environments. The project included developing a course outline and appropriate handouts and facilitating the training sessions.

LEED® Design

Stantec has one of the largest integrated building design teams in North America, currently with almost 500 LEED-accredited professionals (eight in Arizona). To date, we have provided consulting and/or design services on 105 LEED certified projects, including 17 LEED Platinum projects and 50 LEED Gold certifications, accounting for 62 percent of the ratings.

While the projects span many sectors, so too do the services provided, ranging from full service architecture and engineering design, to buildings engineering, LEED consulting, transportation engineering, commissioning, and project management. Likewise, the projects reflect our ability to achieve certifications for our clients under a host of LEED rating systems, including New Construction, Commercial Interiors, Neighborhood Development, Core and Shell, Existing Buildings, and LEED for Schools.

National Renewable Energy Laboratory (NREL) Research Support Facility LEED-NC Platinum and Zero Energy Building Targets; Golden, Colorado

- Design for LEED Platinum Certification
- Electrical Engineering
- Mechanical Engineering
- Heat Recovery/Energy Conservation

This new signature 220,000 SF administration building is the gateway to the National Renewable Energy Laboratory campus in Golden, Colorado. Stantec is providing mechanical and electrical engineering design services and sustainable design guidance for this project, which aims for LEED Platinum Certification and Zero Energy Building (ZEB) under the strict definition from NREL.

We are providing extensive thermal and energy modeling to maximize the passive performance of this facility. Energy saving design strategies include robust natural ventilation strategies, hydronic radiant slab heating and cooling, displacement ventilation, passive air preheat via transpired collectors, a below-grade remote mass labyrinth to store thermal energy, and extensive heat recovery and daylight harvesting to meet an energy target of more than 50 percent better than code. One hundred percent of all typical work spaces are designed to receive adequate daylight (based on LEED criteria) by utilizing a narrow floorplate and an advanced light bouncing device on the south face of the building. A huge photovoltaic array will be integrated into the building roof and adjacent visitor's parking lot, which will be designed to produce more energy than the facility will use in a year.

The project received the ACEC Grand Award of Engineering Excellence in 2011 and has been featured in numerous publications, including the New York Times, the Wall Street Journal, and Metropolis Magazine.

Rincon Solid Waste Transfer Station; Tucson, Arizona

- Design for LEED Gold Certification
- Architecture
- Civil Engineering
- Structural Engineering
- Mechanical Engineering
- Plumbing
- Electrical Engineering

Stantec completed planning, permitting, and design services for this solid waste transfer station for Waste Management of Arizona. The project was completed using the CM@Risk alternative project delivery method. We worked closely with the Owner, Waste Management, and the Contractor throughout the project. We assisted during construction with shop drawing review, RFI response, inspections, and preparation of as-built drawings.

This facility includes inbound and outbound electronic deck scales with a scale house, a facility operations building, and a transfer building for processing of up to 1,500 tons of municipal solid waste per day, expandable to 2,500 tons. The transfer station consisted of a 15,000 SF, fully-enclosed metal building with a concrete tipping floor with load out openings above one tunnel bay and electronic in-ground tunnel scales. It included an innovative tipping/pushwall structure for end-dump operations that significantly reduces the potential of end-dump tip over during unloading operations. The planning for this project included allowance for future tipping floor expansion and addition of a second tunnel.

This project has achieved LEED Gold certification. The decision to pursue LEED Certification was not made until after the design, permitting, and bidding were complete. The buildings were redesigned and re-permitted as quickly as possible to minimize construction delays. We worked closely with Waste Management and the Contractor throughout construction to maximize the potential LEED points with minimum project costs.

Project Teams

An experienced group of key project team members are presented in this section, each of whom represent a major discipline being offered by Stantec. Each of these professionals have worked in Arizona for a number of years and are familiar with local, state and federal regulations. Additional staff resources are available in our Phoenix, Tempe, and Tucson offices to support these key staff members for your projects. All of these staff members will be available to perform the required work at your notice to proceed.

Scot Schlund, PE – Principal-in-Charge (Phoenix)

Mr. Schlund is the Managing Principal for our Phoenix and Tucson offices. He will be the main point of contact for this contract. He has the authority to dedicate the necessary resources to ensure any projects we are assigned are completed on schedule and within budget. He will also be responsible for project team coordination and management and QA/QC.

Architecture

Annette Zacherson, RA, NCARB, AIA, LEED AP BD+C (Phoenix)

Ms. Zacherson has 21 years of hands-on design and construction experience. Her broad understanding of the design process coupled with her attention to detail, and knowledge of projects offers owners' client service from start to finish. She stays closely involved with the project design, validation of design, development of construction documents, and coordination through out the project. Annette's involvement in every step of the project offers the client design solutions that focus on critical issues, goals, and ultimately successful projects.

Brian McClure, RA, CSI, CDT (Phoenix)

Mr. McClure has 24 years of design experience. He excels in the application of technology throughout his design while maintaining a focus on the client and their goals. His previous design experience includes technical facilities, schools, offices, and event venues.

Paul Mullins, RA (Phoenix)

Mr. Mullins brings to the team more than 30 years of planning, design, and construction experience. His experience includes program management, design architecture, construction administration, field inspections, site studies and oversight for municipal, public, and private work. Paul is a very practical architect who brings a wealth of experience in real world construction issues and resolution for successful implementation on any assignment in which he is involved.

Engineering

Water/Wastewater

Maria Brady, PE (Phoenix)

Ms. Brady has 26 years of experience in water, wastewater, storm water, and environmental management projects. Her expertise provides a broad focus on the development, planning, design, construction, start-up, and post-construction follow-up for water, wastewater, storm water, irrigation distribution systems, reuse systems, and other civil projects Maria has been involved in the planning phase of many projects both for individual projects and overall facilities. Her efforts have included technical analysis of water and wastewater systems and design report preparation, coordination of biological, archaeological and environmental assessment evaluations and report preparation, permit application preparation and coordination and soil/land suitability studies for agricultural, commercial, and industrial purposes.

Maria is involved in the design of water supply, transmission, storage, pumping, and distribution systems; wastewater collection, pumping, treatment, and reuse systems; large-diameter storm collection systems; land grading and site development; wastewater and storm water permitting, and pollution prevention; site, soil and environmental evaluations; and project design and construction estimates.

John Take, PE (Tucson)

Mr. Take has more than 20 years of water and wastewater engineering experience concentrating on the master planning and analysis of linear underground infrastructure systems. He has acted as Project Principal on five water and wastewater master plans, Project Manager on more than ten underground infrastructure master plans, and as Project Engineer on numerous water and wastewater related projects. John is familiar with dozens of pressurized pipe and gravity flow simulation models and analytical tools.

Drainage

John Wise, PE, CFM (Tucson)

Mr. Wise has 34 years of hydrologic/hydraulic engineering experience, including 28 years with Stantec as a Principal. He is responsible for the preparation and management of federal flood insurance studies, map revisions, flood control and drainage design, stormwater and drainage master plans, storm sewer systems, and water/wastewater design projects. John has been involved with ADWR State Standards Program for approximately 20 years, including development of State Standards, as well as preparing and instructing training classes. He is also well-versed and experienced with permitting programs: USACOE 404 Program and EPA/ADEQ Stormwater Permit Program. John is a member of the Stantec STARR team, which is one of FEMA's national Production and Technical Services contractors, providing DFIRM studies and associated tasks.

Patrick Ellison, PE (Phoenix)

Mr. Ellison has more than 25 years of experience in the project management and technical evaluations associated with a variety of flood control projects, including floodplain delineation studies, ADMPs, WCMPs, flood control design, and roadway drainage projects. Through this experience, He has acquired significant experience in the application of engineering software, such as HEC-1, HEC-2, HY8, StormCAD, and HEC-RAS. In addition to his engineering modeling experience, Pat has extensive experience in the development of flood control management alternatives, planning evaluations, Rules of Development, Design Guidelines, and conducting public meetings.

Michael Gerlach, PE (Phoenix)

Mr. Gerlach conducts studies in surface water hydrology including rainfall and runoff modeling, open channel hydraulics, and sediment analysis. He has more than 14 years of experience in the areas of hydrology, hydraulic and drainage studies and design engineering and dam safety studies and analyses. He has served as project engineer for numerous large floodplain delineation studies and area drainage master plans and is experienced with HEC-1/HMS hydrologic modeling as well as the application of engineering software integrated with GIS software for the development of hydrologic and hydraulic models. Mike is very experienced in the creation of GIS relational databases for drainage masterplanning which are used by Stantec for data analysis and alternatives formulation.

Chuck Williams, PE (Tucson)

Mr. Williams has more than 20 years of experience in civil engineering and resource management projects. He has worked in both the public and private sector as an engineer and manager, and his extensive public sector experience gives him a unique perspective, and a valuable set of skills. He possesses a thorough understanding of how to navigate through complex resource and stakeholder issues in order to get his clients public work completed on time and within budget.

Site Civil

Corey Thompson, PE (Tucson)

Mr. Thompson has 26 years of experience in civil engineering, including 20 years in project management. He is in charge of the Urban Land group, which provides services in planning, rezoning, hydrology, and design of residential, commercial, institutional, industrial, landscaping, and biological projects. Corey brings a team approach that provides design solutions for the client. He has extensive experience in contract negotiation and administration, site assessment, entitlement, planning and engineering, project costing and financing, project scheduling, and quality assurance and quality control, along with coordination between architects, developers, builders, sub-consultants, and public agencies. After working with the government agencies on plan approval and permitting, he works closely with contractors, surveyors, inspectors, government agencies and owners to make sure the project is built according to plans and specifications.

Warren Thompson, PE, RLS (Tucson)

Mr. Thompson has 40 years of project management and civil engineering design experience. His major field of expertise is in providing consulting engineering services for land development of recreational, single-family, multi-family, commercial, governmental, and industrial projects. His project experience includes plans and specifications for recreational centers, offices, restrooms, comfort stations, parking lots, and community facilities. Design experience consists of utilities, potable water and wastewater systems, site improvements, and grading, paving, and drainage plans. Development projects range in size from 1-acre to 915-acre parcels. Warren is proficient in rezonings, tentative and final plats, development plans, and improvement plans.

Warren also served as part of a core group of stakeholders who worked with the City of Tucson Manager's office to redesign and create a streamlined development plan review process. He is a member of the Pima County Wastewater Management Oversight Committee, the Pima County Wastewater Management Engineers Standards Committee, the Pima County Department of Environmental Quality Advisory Council, as well as numerous city, county, and town committees for development policy reviews, ordinance reviews, and oversight reviews.

Tricia Cook, PE (Phoenix)

Ms. Cook is a project engineer with 22 years of experience in design and construction management of civil projects. She has been involved in the conceptual design, planning, and design of municipal infrastructure systems including water, wastewater, roads, and stormwater. Tricia has experience with computer analyses, computer modeling, report preparation, contract preparation, and permit applications. She has been involved in the design and project management for water supply, water distribution, water treatment, wastewater collection, wastewater pumping, and wastewater treatment. She also has roads and drainage experience with operation and maintenance requirements including providing operator assistance and training.

Transportation

Bill Ferris, Jr., PE (Phoenix)

Mr. Ferris has been with Stantec for 25 years and has been responsible for the management, planning, and design of numerous transportation improvement projects from rural/urban arterials to expressways and interchanges. In total, he has led design teams on 30 capital projects totaling over \$300 million in construction costs. His recent responsibilities include the management of design for the expansion and modernization of the Mariposa Land Port of Entry (\$156M) and management of three sequential construction contracts for a \$140 million system interchange and expressway reconstruction project in Steuben County, New York.

Douglas Moseke, PE (Tucson)

Mr. Moseke serves as Transportation Project Manager for Stantec where he has been a key part of the Transportation team for more than 16 years. He focuses on providing context sensitive design processes and sustainable solutions that are essential elements of civil engineering. He understands that these elements must be incorporated at the inception of the project and continuously addressed through final design.

Doug possesses a breadth of ability and experience ranging from project management to project design and planning. His project experience comprises transportation improvement projects ranging from urban arterials to pedestrian enhancements, multiuse paths, and roundabouts. Additionally, he has been involved in all phases of the public involvement and outreach and has worked extensively with clients in effectively presenting concepts to the public and regulatory authorities for their consideration and acceptance.

He has successfully worked with clients throughout the State from as far south as Yuma to as far north as Page. His recent responsibilities include the management of a three-mile, three phase project with the City of Scottsdale along Cactus Road from the Loop 101 to Frank Lloyd Wright Boulevard.

Electrical/Mechanical

Martin Armenta, PE, RCDD, LEED® AP (Phoenix)

Mr. Armenta is a professional engineer with 22 years of electrical engineering and project management experience. His expertise include the design of medium voltage (2.4kV - 46kV) power distribution, low voltage (120V - 600V) power distribution, exterior area lighting, street lighting, interior lighting, grounding, traffic signals, lightning protection, fire alarm, telecommunications, access control, closed circuit television, integrated security, intercom, public address, distributed control systems, and PLC/HMI control systems for design-build, CMAR, and conventional delivery projects.

Martin is directly involved in all aspects of design, including the preparation of specifications and cost estimates. He also possesses general contracting, construction management, and construction administration experience to complement his design experience. His experience in operations, project, and quality management round out his skill set. Martin's Registered Communications Distribution Designer (RCDD) credential is the most widely recognized credential for knowledge and experience in telecommunications system design.

John Theiss, IAEI (Tucson)

Mr. Theiss has 30 years of experience, the last 20 with Stantec, and is responsible for the technical quality of all mechanical, plumbing, electrical, and structural engineering projects produced in the region. John performs detailed quality control, interdisciplinary coordination, and constructability reviews of civil, architectural, structural, mechanical, plumbing, and electrical drawings and specifications. His responsibilities include project management, client relations, and oversight of the design process and construction administration.

Patrick McKenna, PE, LEED® AP (Tucson)

Mr. McKenna has 13 years of mechanical engineering and plumbing design experience, with an emphasis on energy efficient and environmentally conscious designs. His expertise includes life cycle cost, energy consumption and building energy envelope analyses; as well as the design of HVAC, plumbing and medical gas systems. He also has experience with applying his mechanical and plumbing system knowledge to water treatment and wastewater facilities and collaborating with all other engineering disciplines to create a well thought-out facility for the end users.

Patrick approaches his design with an emphasis on energy efficient and environmentally conscious designs without providing unnecessary system complexity for the end user. His expertise includes life cycle cost analyses, energy consumption and building energy envelope analyses, load calculations, as well as the design of mechanical and plumbing systems. He is also experienced in the creation of as-built drawings, load calculations, cost estimating and scheduling.

John Nel, A.Sc.T., PMP (Phoenix)

Mr. Nel is an accomplished senior electrical and controls technologist. His work experience has been in both the commercial and municipal sectors. He has been actively involved with leading edge technology in the security and building automation fields and has provided services from system design, project management, and security assessments to implementation and commissioning on many projects. John has provided high end security system design for a large number of projects, and as a result, is very well known in the security industry. He continues to keep current with today's requirements for the application and implementation of industrial and building automation products to new and existing facilities.

Plan Review/Code Compliance

Bert Stone, CBO (Phoenix)

Mr. Stone has over 38 years in the building construction and administration industry, including bid preparation, staff supervision, code compliance, plan review, teaching, and special projects. He has extensive experience in single and multi-family, multi-story, townhomes, apartments, office buildings, hotels, hospitals, semiconductor plants, industrial occupancies, warehouses, storage facilities, fire stations and administration buildings, schools, colleges, malls and shopping centers, retirement facilities, recreational facilities, manufactured dwelling park, fisheries, recreational vehicle park, churches, amusement parks, automotive centers, garages and service stations. His additional responsibilities have included fire and life safety plan review, plumbing inspections and reviews, mechanical inspections and reviews, energy inspections and reviews, accessibility inspections and reviews, electrical, and other civil inspections as required to achieve compliance with all applicable state and local jurisdictional rules and regulations.

Geological

Theresa Jones, RG (Phoenix)

Ms. Jones has 17 years experience in environmental consulting and management. She has managed and conducted corrective action programs in Arizona, California, New Jersey, New Mexico, New York, Pennsylvania, Rhode Island, Texas, Utah, the Salt River Pima-Maricopa Indian Community, and the Navajo Nation. Ms. Jones' client base has ranged from major oil companies to local school districts. Her combined background in the geological and environmental science fields has been instrumental in executing an interdisciplinary approach to defining and resolving a wide range of environmental concerns. Based on education and experience, her ability to make critical decisions based upon observations and

analytical data has proven invaluable in reducing project costs without compromising the integrity of the projects that she has managed. These abilities have made Ms. Jones instrumental not only in managing and conducting corrective action programs, but also in obtaining site closure and maintaining a high level of client satisfaction.

Landscape Architecture

Galen Drake, RLA, CPESC, LEED® AP (Phoenix)

As a professional landscape architect in Arizona for nearly 30 years, Mr. Drake has a wide range of experience and knowledge of local conditions in regard to plant materials, irrigation systems, and construction techniques. In addition, he has experience in the environmental inspection and administration for large-scale rural highway projects. His experience has included salvage of native vegetation, seeding and revegetation, rock sculpting and slope contouring, erosion and sediment control, and NPDES compliance.

Galen's projects involve numerous aspects of site development, including site analysis and design, grading and drainage, planting and irrigation design, construction documents, cost estimating, and construction administration and inspection. His extensive experience has also given him a thorough knowledge of local conditions in regard to plant materials, irrigation systems, and construction techniques.

Land Surveying

Ed Balliet, RLS (Phoenix)

Mr. Balliet has more 22 years of experience and has participated as a project manager and survey crew chief on a wide variety of survey projects, including GPS, aerial control, ALTA, boundary, design, mining claims, and topographic and wetlands surveys. He has been responsible for construction surveys consisting of large commercial, utility, flood control, and roadway projects.

David Hill, RLS (Tucson)

Mr. Hill has 39 years of experience in the preparation of subdivision plats, boundary surveys, ALTA surveys and legal descriptions, together with supervision of topographical surveys (by both ground and aerial methods), construction staking, as-built surveys and terrestrial scanning projects. Recent projects include Tucson International Airport Terminal Apron Improvements (topography and scanning), Rosemont Copper Mine (topography, boundary surveys, ALTA surveys, right-of-way surveys and legal descriptions), I-10 Widening, Ruthrauff Road to Prince Road (construction staking) and Rancho Sahuarita Master Planned Community (topography, boundary surveys, legal descriptions, subdivision plats, construction staking and as-built surveys). In addition to the above, Dave acts as project manager for all survey projects in the Tucson office.

Environmental

Bob Larkin, RPA, AICP (Phoenix)

Mr. Larkin manages the Environmental Planning and Archaeology group for Stantec's Phoenix office and has over 16 years of experience performing and managing the preparation of Phase I and Phase II environmental site assessments. The assessments have all been performed to ASTM standards. He has either prepared or managed the preparation of more than 100 NEPA environmental assessments and environmental impact statements. Bob has also prepared or managed the preparation of over 300 reports of archaeological surveys and excavations.

Theresa Jones, RG (Phoenix)

Ms. Jones has 17 years experience in environmental consulting and management. She has managed and conducted corrective action programs in Arizona, California, New Jersey, New Mexico, New York, Pennsylvania, Rhode Island, Texas, Utah, the Salt River Pima-Maricopa Indian Community, and the Navajo Nation. Ms. Jones' client base has ranged from major oil companies to local school districts. Her combined background in the geological and environmental science fields has been instrumental in executing an interdisciplinary approach to defining and resolving a wide range of environmental concerns. Based on education and experience, her ability to make critical decisions based upon observations and analytical data has proven invaluable in reducing project costs without compromising the integrity of the projects that she has managed. These abilities have made Ms. Jones instrumental not only in managing and conducting corrective action programs, but also in obtaining site closure and maintaining a high level of client satisfaction.

Construction Management/ Administration

Jim Van Houten, PE (Phoenix)

Mr. Van Houten has 30 years of experience in construction administration/management, project inspection, and materials testing on a variety of projects. He performed construction administration, construction observation, and material testing of airport Portland Cement Concrete paving reinforced concrete, structural masonry, structural steel, soils fill control, asphalt paving, roof construction, concrete batch plants, pre-stressed concrete, electrical, mechanical, fireproofing, structural welding, high-strength bolted connections, structural slabs, and continuous and isolated spread footings. Jim is also experienced with many alternate project delivery methods, including design-build and CM@Risk.

Richard Bigelow (Tucson)

Mr. Bigelow has 19 years of experience engineering design as well as in construction administration, inspection, and observation in both public wastewater collections systems within new development and as a Pima County Regional Wastewater Reclamation Department representative for Capital Improvement Projects (CIP). His experience with public sewer construction within new developments includes maintaining shop drawings, job reports, and construction permits; ensuring proper construction techniques such as depth, bedding, pipe joining, line and grade, shading, and backfill; verifying adequate utility separation; ensuring proper HCS construction; observing manhole base construction; mirror, mandrel, and pressure testing pipe segments; vacuum testing manholes; and ensuring manhole rings and covers established at finished grade. Mr. Bigelow is certified by the American Concrete Institute as a Concrete Field Testing Technician - Grade 1 and by the Arizona Technical Testing Institute as an ATTI Field Technician. He is also certified by National Association of Sewer Service Companies to practice pipeline assessments, manhole assessments, and lateral assessments.

Mining

Sandy Watson (Tempe)

Mr. Ronald Hegge has 28 years of experience in the mining mineral processing, geothermal energy production, petroleum, waste incineration, wastewater processing, chemical, construction, and aerospace industries as a group, project, engineering, and business development manager, project engineer, mechanical engineer, and field engineer. He has significant experience in project management and his engineering experience reflects a broad range of work assignments, including analytical design, maintenance, budgets, construction management, and quality assurance and quality control.

Mary Shewmaker (Tempe)

Ms. Mary Shewmaker is a Senior Project Engineer with more than 30 years of experience in the mining, power and large industrial equipment fields as a Project Manager, Project Engineer, Mechanical Engineer, technical report writer, analyst, estimator, and scheduler. She prepares feasibility studies, energy audits, project proposals, contracts, budget estimates, project cost evaluations, forecasts, schedules, and evaluated bids and change orders. Mary's project work includes EPCM Project Management, coordination with Owners, Contractors and Architects on complex projects, mechanical system design, development of equipment and construction specifications, and performing shop drawing reviews. Her technical writing experience includes writing and compiling information for extensive technical reports, procedures, policies, studies, energy audits, and construction specifications.

Management Approach

Stantec's approach to meet the needs of ADOA will be patterned after the successful approaches we have developed and refined over the years while providing services for similar on-call contracts. This experience includes the incorporation of project management tools and techniques, a thorough and consistent Quality Assurance/Quality Control (QA/QC) program, maintaining open and constant communication between all involved parties, and assigning our most experienced personnel to the proposed project.

Management Team

Stantec's efforts on this contract will be lead by Scot Schlund, PE. Once awarded a project/task, Scot will work with local office management to determine the best project team for that particular task order. Our Arizona offices are lead by an experienced management team who are actively involved in management, design, and quality control of each project completed within their areas of responsibility. Their direction ensures that our projects are adequately budgeted and staffed throughout the life of the project. They attend partnering meetings with the client, design team, and affected stakeholders during development of the project and provide experienced input and expertise relating to specific project criteria.

Capacity

With over 350 Arizona based staff members, Stantec has the capacity to complete any task we may be assigned. To ensure that we can respond rapidly to your requests and that all project tasks will be completed on schedule, current and expected workloads will be reviewed for each team member prior to project assignments.

Quality Management System

Stantec has a formal quality management system in use across the organization which is registered to the ISO9001:2008 Quality Management standard. The quality management system promotes quality practices across the organization with the goal of:

- Reducing the risk and consequences of design errors;
- Helping us grow by promoting reliable processes;
- Improving productivity and efficiency;
- Promoting the quality and reliability of our services;
- Improving the financial performance of our operations;
- Increasing client confidence and loyalty; and
- Supporting regulatory compliance.

Cost Control

A thorough understanding and agreement on the scope of services is the first step of our design services cost control process. During the contract negotiation phase, we will work closely with the client to prepare a detailed scope of services, estimated work hours for each task, labor cost, and other direct costs. Additionally, we will work with the client's staff to identify project budgetary limitations associated with the construction costs, administrative efforts, indirect project costs, and other project constraints that would affect these issues during the project-scoping phase. This depth of understanding aids us in determining how we can best meet the client's needs while maintaining the project budget.

Schedule Control

The project or task schedule is a valuable tool for both the determination of the progress of work and to assist with budgetary controls. We will develop written project work plans identifying the goals of each project. In addition to the work plan, a design schedule is developed to monitor progress and manpower loading. Stantec uses Microsoft Project to monitor progress relative to the original schedule. Major milestones and critical dates are monitored against progress and adjustments are made to the project commitment as necessary.

Value Engineering

As an integral part of the design process, Stantec uses value engineering (VE) to ensure the most appropriate, efficient, and cost effective systems are incorporated into every project. VE analyzes the functional, aesthetic, and long-term operational issues in the context of budget, schedule, and constructability. It scrutinizes all components of a project from a variety of viewpoints, modifying or eliminating elements that add cost without contributing to functionality, efficiency, or form. The most successful VE programs are multi-disciplined and comprise all planning and design stages— programming, schematic design, design development, contract document, and 95% completion. Formal workshops are held at each stage and documented for use by all design and construction team members. This ensures that the team clearly understands the owner's objectives and the implementation reflects the design intent.