



ATTACHMENT I – General Qualifications

ANNUAL REQUEST FOR QUALIFICATIONS AND EXPERIENCE NO:
ADSP015-00004729

STATE PROCUREMENT OFFICE
Department of Administration
100 North 15th Avenue, Suite 201
Phoenix, Arizona 85007

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

1. Annual Request for Qualifications

a. FIRM (OR BRANCH OFFICE) NAME:	Michael Baker Jr., Inc., a Michael Baker International Company
b. FIRM (OR BRANCH OFFICE) STREET:	Phoenix Plaza Tower II, 2929 N. Central Avenue, Ste. 800
c. FIRM (OR BRANCH OFFICE) CITY:	Phoenix
d. FIRM (OR BRANCH OFFICE) STATE:	AZ
e. FIRM (OR BRANCH OFFICE) ZIP CODE:	85012
f. YEAR ESTABLISHED:	1984
(g1). OWNERSHIP - TYPE:	Corporation
(g2) OWNERSHIP - SMALL BUSINESS STATUS:	N/A
h. POINT OF CONTACT NAME AND TITLE:	Doug Plasencia, Vice President
i. POINT OF CONTACT TELEPHONE NUMBER:	602-798-7552
j. POINT OF CONTACT E-MAIL ADDRESS:	dplasencia@mbakerintl.com
k. NAME OF FIRM (If block 1a is a branch office):	Michael Baker Corporation



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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
Archeologist	P	31	
Architect	P	45	6
Biologist	P	8	
CADD Technician	P	165	12
Civil Engineer	P	275	13
Construction Manager	P	75	2
Construction Inspector	P	193	1
Cost Engineer/Estimator	P	1	
Ecologist	P	4	
Electrical Engineer	P	12	
Environmental Engineer	P	7	
Environmental Scientist	P	83	2
Geographic Information System	P	139	3
Geologist	P	21	
Hydrologist	P	6	2
Industrial Engineer	P	1	
Landscape Architect	P	3	
Mechanical Engineer	P	10	
Photogrammetrist	P	1	
Project Manager	P	66	2
Soils Engineer	P	14	
Structural Engineer	P	110	2
Technician/Analyst	P	304	9
Transportation Engineer	P	96	7
Water Resources Engineer	P	31	3
Other	P	735	26
Total		2436	90



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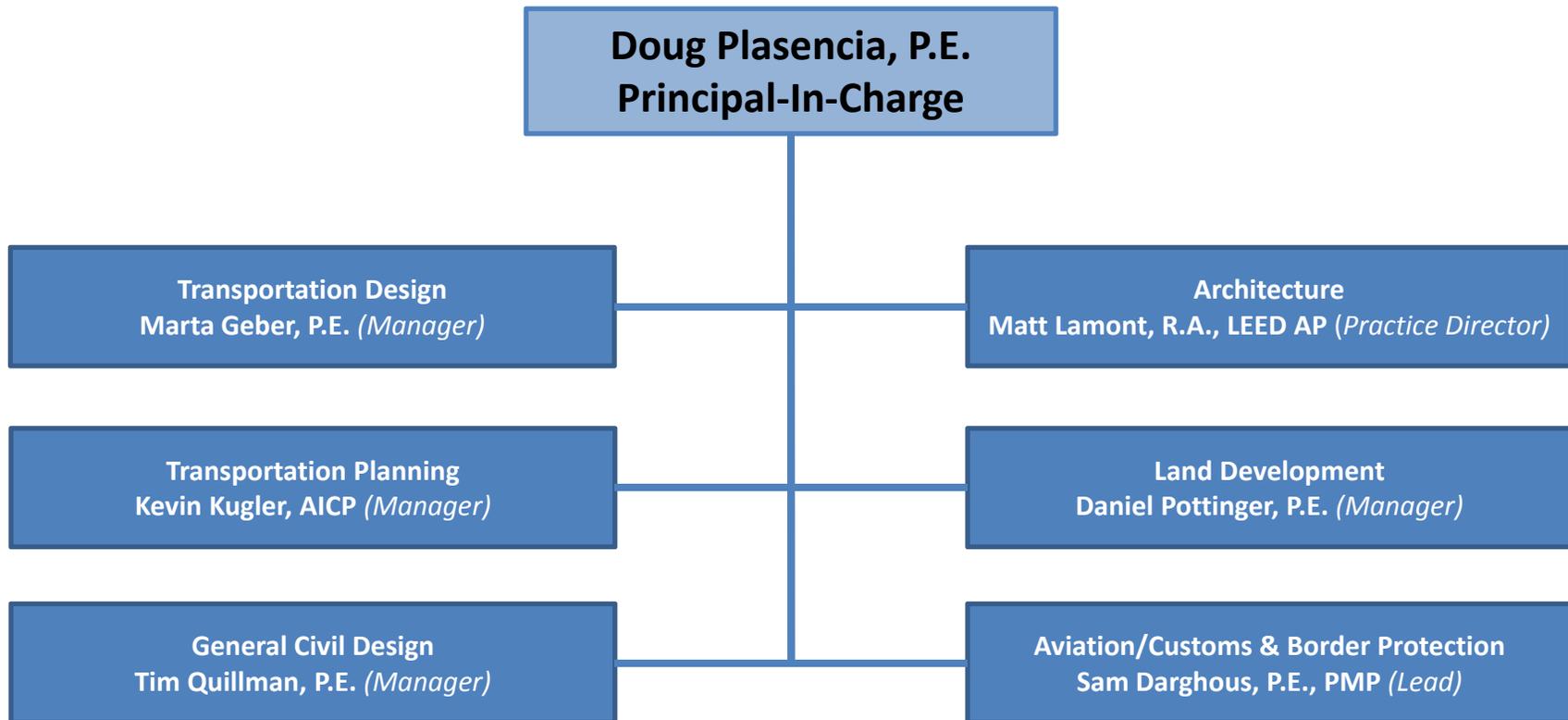
3. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST YEAR

a. Approximate No. of Projects	b. Experience	c. Revenue Index Number (see below)
3	Barracks; Dormitories	3
121	Bridge Design; Bridges	3
17	Commercial Building (Low Rise); Shopping Centers	9
47	Construction Management	10
2	Dams (Concrete; Arch)	5
61	Environmental Impact Studies, Assessments or Statements	10
83	Highways; Streets; Airfield Paving; Parking Lots	6
5	Housing (Residential; Multi-Family; Apartments; Condominiums)	4
10	Land Surveying	6
31	Landscape Architecture	10
20	Structural Design; Special Structures	8
74	Stormwater Handling and Facilities	10
16	Traffic and Transportation Engineering	3
29	Utilities (Gas and Steam)	9
49	Water Resources; Hydrology; Ground Water	4

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 |

Organizational Chart





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4. Resumes of Key Personnel Proposed for this Contract (Complete one Section 4 for each key person.)

a. NAME Doug J. Plasencia, P.E., CFM	b. ROLE IN THIS CONTRACT Principal-In-Charge	c. YEARS EXPERIENCE	
		1. TOTAL 31	2. WITH CURRENT FIRM 9
d. LOCATION (City and State) Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona			
e. EDUCATION (DEGREE AND SPECIALIZATION) M.S., Watershed Management, University of Arizona, 1988 B.S., Forest Resource Management, University of Minnesota, 1982		f. PROFESSIONAL TRAINING - REGISTRATIONS Certified Floodplain Manager: AZ, Professional Engineer - Civil, 24426, 1990 NV, Professional Engineer - Civil, 013764, 1999; VA, Professional Engineer, 022187, 1991	
g. OTHER PROFESSIONAL QUALIFICATIONS (Organizations, Awards, etc.) Mr. Plasencia has been a Baker Senior Manager for nine years and has several years of experience in the industry. He currently co-manages Baker's Civil and Environmental Engineering (CEE) national Practice and is based in Phoenix, Arizona. CEE generates approximately \$100 million in revenue annually with staff distributed in 10 offices. Signature projects include FEMA floodplain mapping and hazard mitigation; tactical infrastructure on the U.S. border; state and municipal projects; and emerging emphasis with traditional private sector environmental, oil and gas permitting, and land development clients. He is a recognized expert in hydrologic-hydraulic engineering, flood control, floodplain management, and policy issues associated with the planning, environmental, and economic aspects of riverine and coastal floodplains. His policy expertise has been called upon by Congress, federal agencies, and the Executive Office of the President, and he has served as a panel member or reviewer of several National Academy of Sciences studies. He currently serves as the President of the ASFPM Foundation and previously was a member of the FEMA Advisory Board, as well as National Chair of ASFPM. Doug is a registered professional engineer in several states and is a certified floodplain manager. He has degrees in Forestry from the University of Minnesota and a Masters in Watershed Management from the University of Arizona.			

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION (City and State) Countywide Digital Flood Insurance Rate Map Conversion and Floodplain Remapping, Stillwater County, Montana	(2) YEAR COMPLETED	
		Professional Services 2015 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Montana Department of Natural Resources and Conservation. Principal-In-Charge. Responsible for ensuring the Baker project manager and team is serving client, executing project scope, while meeting financial and quality control metrics. Baker is providing professional services as needed to complete a Digital Flood Insurance Rate Map (DFIRM) conversion for Stillwater County. Baker will incorporate existing data studies (including a U.S. Army Corps of Engineers study for the entire reach of the Yellowstone River), convert paper floodplain mapping into a GIS-based digital format, incorporate any Letters of Map Change (LOMC), and re-delineate floodplain boundaries using better topographic data. Baker will perform field surveys, review topographic data, and acquire base maps; review hydrologic and hydraulic data for existing data studies; develop floodplain mapping; produce the DFIRM database; develop and distribute preliminary map products; and provide post-processing services, including facilitation of community meetings, as required. \$234,374.00 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION (City and State) French Creek Floodplain Environmental and Engineering Services, Helotes, Texas	(2) YEAR COMPLETED	
		Professional Services 2014	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Bexar County. Principal-In-Charge. Responsible for ensuring the Baker project manager and team is serving client, executing project scope, while meeting financial and quality control metrics. Baker provided environmental and engineering analysis services to assist in removing multiple residential properties in the Cedar Springs Subdivision and the Evans Valley Subdivision from the French Creek floodplain. Baker reviewed and evaluated documents including engineering reports, plans, and digital flood insurance rate maps (DFIRM) computer models that had been prepared previously for French Creek. Baker also performed natural channel design tasks including reviewing existing documents, data, and hydraulic models; estimating bankfull parameters; developing a potential determination and approach; conducting a field assessment; and developing a cost estimate. Baker then developed a preliminary engineering report for the project including schematic layouts, Hydrologic Engineering Center - Hydrologic Modeling System (HEC-HMS) and River Analysis System (HEC-RAS) summaries, drawings indicating the proposed project configuration, an opinion of probable construction cost, and a recommendation for the work to be included in the design phase of the project. \$963,205.15 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION (City and State) Master On-Call Engineering Services (\$800,000), Harris County, Texas	(2) YEAR COMPLETED	
		Professional Services 2014	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Harris County Flood Control District. Principal-In-Charge. Served as principal and subject matter expert. Baker was retained to lead a comprehensive study to investigate a large overflow from the Cypress Creek watershed to the Addicks Reservoir watershed, and to develop management plans to address the overflow. The study involved the development of a coupled 1d/2d model using xpostrom that indicated that, during a 100-year event, the overflow will inundate about 20,000 acres, with a peak discharge of over 11,000 cubic-feet-per-second and a total overflow volume of over 20,000 acre-feet. The resultant floodplain is in an area that is experiencing development pressure from the Houston metropolitan area. Ultimately, a project steering committee selected one of the plans as the preferred plan. This plan has a total land, construction, and professional services cost of about \$370 million. \$1,049,885.89 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION (City and State) Rush Creek Subwatershed Hydraulic Analysis and Channel Stability Analysis, Southeast Tarrant County, Arlington, Texas	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE City of Arlington, TX. Principal-In-Charge. Served as principal and subject matter expert. The Rush Creek watershed is located in southeast Tarrant County, primarily within the City of Arlington. It contains approximately 31,000 highly urbanized acres, and approximately 72 miles of main channel and tributary. Numerous floods have occurred over the past century, and the watershed has developed significantly over the past 40 years. Past development has had an enormous impact on the floodplains and creeks, and has led to increased volumes, velocities, and base flood elevations, as well as decreased water quality. Due to flooding concerns and the lack of knowledge of the true volumes and flood elevations in the watershed, a need was determined for a comprehensive watershed study for the Rush Creek Watershed. The City took a programmatic approach; engaging a Program Manager to oversee four consultant teams in the development of a Physical Map Revision, as well as the consideration of flood management measures to reduce flooding in the watershed. \$768,225.00 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION (City and State) FEMA and Floodplain Management Map Maintenance Services, Maricopa County, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE The Flood Control District of Maricopa County (FCDMC). Principal-In-Charge. Responsible for ensuring the Baker project manager and team is serving client, executing project scope, while meeting financial and quality control metrics. Baker provided mapping support to integrate 12 floodplain delineation studies into Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) data layers. The studies included Upper Dagg Wash, Gavilan Peak, Rio Verde, Theba, Luke Wash, Rainbow Valley, Tres Rios, Rodger Creek, Wittman/Surprise, Wittman Phase III, Palo Verde, and Chandler/Gilbert Phases 1, 2, and 3. Baker acquired base map data, performed technical review of hydrologic and hydraulic analyses, incorporated floodplain boundary data into a master geodatabase, and developed a draft Digital Flood Insurance Rate Map (DFIRM) database. The end product consisted of Preliminary DFIRM/FIRM Panel and respective flood insurance study updates provided to the district and FEMA for finalization. \$510,768.52 (Fee)	<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	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
Marta H. Gerber, P.E.	Project Manager	1. TOTAL 16	2. WITH CURRENT FIRM 4
d. LOCATION <i>(City and State)</i> Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona		Michael Baker INTERNATIONAL	
e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> B.S.E., Civil Engineering, Arizona State University, 1998		f. PROFESSIONAL TRAINING - REGISTRATIONS AZ, Professional Engineer – Civil, 41369, 2004	
g. OTHER PROFESSIONAL QUALIFICATIONS <i>(Organizations, Awards, etc.)</i> Ms. Gerber's experience includes traffic engineering, including safety analysis and designing safety improvements. She has successfully completed and served as project manager for studies that started with a modeling and analysis phase and included final reports. In addition, she successfully managed design projects including signal and signing and marking, signal coordination design, future fiber interconnect, and ITS designs all the way to final plans, specifications and estimates (PS&E) documents for all project improvements. Assignments have also included utility coordination, stakeholder meetings, and public meetings for projects completed for various Arizona municipal cities. She routinely coordinates with City, County, State and Federal agencies; and has both attended and made presentations at public hearings, planning and zoning meetings, and city council meetings.			

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION <i>(City and State)</i> S.R. 303 Roadway and Traffic Engineering and Design, Glendale and Surprise, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Arizona Department of Transportation.</i> Lead Traffic Engineer. Baker designed a six-lane divided highway between Glendale Avenue and Peoria Avenue with a full System Traffic Interchange (TI) connection with Northern Parkway. Baker worked with ADOT to redesign from 30% plans, reducing construction costs. Baker's Roadway and Drainage Group developed an integrated method of stitching roadway and drainage design together with plan production, thereby reducing errors between design, plans, and quantities. \$7,587,725 (Fee) \$126,000,000 (Construction)	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION <i>(City and State)</i> S.R. 19B, Railroad Crossing Safety Evaluation, Nogales Arizona	(2) YEAR COMPLETED	
		Professional Services 2015	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Arizona Department of Transportation.</i> Project Manager. Responsible managing seven railroad crossing studies to determine deficiencies and necessary safety improvements. Baker is currently studying seven interconnected highway-railroad grade crossings on S.R. 19B to determine deficiencies, safety improvements, ADA and MUTCD compliance. Pre-emption signal timing plans will be updated based on recommended intersection geometric improvements. Signing and marking design services were performed for approximately three miles of S.R. 19B, and modifications and recommendations for new signal and railroad equipment were made to the seven signalized intersection. The Baker team has been working closely with the ADOT railroad liaison and the UPRR representative.	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION <i>(City and State)</i> Logo Sign Placement in Urban Areas – Phase 1; S.R. 101L from Thunderbird Road to Frank Lloyd Wright Blvd., Scottsdale, Arizona	(2) YEAR COMPLETED	
		Professional Services 2014	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>ADOT/GCSLS.</i> Project Manager. Baker provided design services for the section of the S.R. 101L from Thunderbird Road to Frank Lloyd Wright Boulevard. Specific tasks included identifying suitable locations for the installation of specific service (logo) signs along the corridor. Baker obtained MicroStation files from three separate consultants through permission from ADOT. After several field reviews verifying base files and as-builts, Baker prepared 11 roll plots depicting the location of new logo signs and identified existing signs that required relocation. Baker maximized the allowable number of logo signs at each exit. At locations where existing non-logo signs prohibited the placement of a new logo sign, Baker evaluated and recommended alternative locations for mandatory overhead guide signs in order to place new logo signs. At one of the Traffic Interchanges, additional design needed to be completed to accommodate many of the exiting overhead guide signs. Baker worked with GCSLS and ADOT to determine the cost effectiveness of major sign relocations, traffic control costs for construction and ultimately the installation of the new median guide signs as well as Logo Signs. \$153,794 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION <i>(City and State)</i> Traffic Signal Removal Study, Surprise, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>City of Surprise.</i> Traffic QA/QC. Baker completed a comprehensive traffic signal removal study for the intersection of Bell Road and 168th Drive based on current traffic conditions to determine if the existing traffic signal was no longer warranted with the existing traffic volumes, the proximity to adjacent signalized intersections, and the current and alternative roadway network. Baker managed the collection of existing traffic count data, conducted a field inventory of the study intersection and other intersections in the vicinity, analyzed crash data, and completed a capacity analysis. Baker analyzed the existing conditions according to the signal warrants described in the 2003 Manual on Uniform Traffic Control Devices (MUTCD), reviewed current signal coordination plans in Synchro to determine the effects of removing the signal, and completed difference cost analysis comparing the continued signal operation costs versus a one-time signal removal cost. Baker formulated a recommendation as to whether or not the removal of the existing traffic signal was justified. Additionally, Baker provided public involvement services including development of a mailing list, door-to-door business outreach, facilitation of a public open house, and coordination of a project hot line. \$51,650 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION <i>(City and State)</i> Logo Sign Placement in Urban Areas – Phase 2; Section 2 – S.R. 202L Red Mountain, Tempe and Mesa, Arizona	(2) YEAR COMPLETED	
		Professional Services 2015 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Arizona Department of Transportation.</i> Project Manager. The Grand Canyon State Logo Signs (GCSLS) – A Program of the Arizona Department of Transportation (ADOT), procured and continues to procure design consultants through the ADOA Annual Request for Qualifications to work on Logo Sign Placements in Urban Areas. The purpose of the Logo Sign Placement project was to identify suitable locations in compliance with MUTCD and ADOT traffic engineering standards for the installation of Specific Service Signs along Urban Freeway segments in the Phoenix Metropolitan area. Baker provided design services for the section of the S.R. 202L from 24th Street to Broadway Road (15 exits in total). Specific tasks included identifying suitable locations for the installation of specific service (logo) signs along the corridor. Baker obtained MicroStation files from multiple consultants through permission from ADOT. After several field reviews verifying base files and as-builts, Baker prepared roll plots depicting the location of new logo signs and identified existing signs that required relocation. Baker maximized the allowable number of logo signs at each exit. At locations where existing non-logo signs prohibited the placement of a new logo sign, Baker evaluated and recommended alternative locations for mandatory overhead guide signs in order to place new logo signs. At one of the Traffic Interchanges, additional design needed to be completed to accommodate many of the exiting overhead guide signs. Baker has successfully completed and submitted final PS&E documents to ADOT and GCSLS. \$112,875 (Fee)	<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 Chad H. Andrews, P.E.	b. ROLE IN THIS CONTRACT Project Manager/Civil Engineer	c. YEARS EXPERIENCE	
		1. TOTAL 23	2. WITH CURRENT FIRM 8
d. LOCATION (City and State) Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona			
e. EDUCATION (DEGREE AND SPECIALIZATION) Coursework, Civil Engineering, Arizona State University A.A., AutoCAD and Drafting, ITT Technical Institute, 1990	f. PROFESSIONAL TRAINING - REGISTRATIONS AZ, Professional Engineer - Civil, 42821, 2005		

g. OTHER PROFESSIONAL QUALIFICATIONS (Organizations, Awards, etc.)
 Mr. Andrews has experience with urban and rural highways throughout Arizona. He served as the deputy project manager on S.R. 303L, Lake Pleasant Parkway to I-17, and managed quality control for S.R. 303L Glendale to Peoria. He is primarily responsible for scope, schedule, and budget compliance. He has managed over 15 projects for ADOT, including S.R. 101 HOV design-build and S.R. 86, Valencia Road to Kinney Road. These projects included extensive coordination with local municipalities and stakeholders, IGA development, complex utility coordination, traffic control, airport coordination, earthwork management, and coordination with ADOT's Roadside Development Section. Chad has also acted as project manager for ADOT's Roadway On-Call and has overseen quality control on S.R. 89A, Viewpoint. He is also skilled in MicroStation and InRoads design packages.

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION (City and State) S.R. 86, Valencia Road to Kinney Road, Tucson, Arizona	(2) YEAR COMPLETED	
		Professional Services 2014	Construction (if applicable) NA
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Arizona Department of Transportation. Project Manager. Baker designed seven miles of S.R. 86 upgrading it from a two-lane road to a four-lane divided highway from Kinney Road to Valencia Road. The project included the reconstruction of five intersections, 13 drainage structures, two bridges, temporary and ultimate traffic signal designs, and the design of two DMS. To minimize adverse impacts on the adjacent floodplain and existing topography, the new roadway was shifted twice. Baker oversaw the construction phasing design and reviewed ADOT traffic control and signing and marking design for the project. \$4,200,000 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION (City and State) MCDOT On-Call 2012-2014, Maricopa County, Arizona	(2) YEAR COMPLETED	
		Professional Services 2015 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Maricopa County DOT. Lead Roadway Engineer. Responsible for roadway, drainage and utility design, value engineering, and construction support services. Baker is currently working under MCDOT Contract No. 2012-051 On-Call Professional Engineering and Design Services. A major focus of this contract is to produce Scoping Documents according to the current MCDOT Project Development Manual. Baker and its sub-consultants are providing all of the typical design services associated with roadway infrastructure projects. Currently, Baker is working on Scoping Assessment Report for Task Order TT338 Miller Road. This project is a one-mile stretch of Miller Road from Yuma Road to the Army National Guard Facility. The purpose of the project is to pave the dirt road and therefore suppress the amount of dust generated by vehicular traffic. Multiple design issues will be addressed with this project, including Right-of-way acquisition, overhead utility relocation, mitigation of potential environmental impacts, drainage control, and accommodation of the existing FCDMC Flood retarding Structure Buckeye FRS #2. \$200,000 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION (City and State) U.S. Border Pedestrian and Vehicle Fence Design Geospatial Services, Southwestern United States	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE U.S. Army Corps of Engineers, Fort Worth District. QA/QC Engineer. Responsible for reviewing final plans, specs, and estimates prior to construction bid advertisement. Baker provided geospatial services under a compressed schedule for the concurrent design and construction of 525 miles of pedestrian and vehicle border fence in Texas, Arizona, New Mexico, and California. Baker's geospatial tasks included developing a Spatial Data Standard for Facilities, Infrastructure, and Environment-compliant ArcSDE geodatabase; designing an ArcGIS web portal; and performing topographic surveying and mapping for property acquisition, which entailed collecting GPS data for geodetic control, producing digital orthophotos, developing digital terrain models, and performing metes and bounds surveys. \$6,439,653 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION (City and State) S.R. 101L- 23rd to 7th Avenue, Phoenix Metropolitan Area, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable) 2013
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Arizona Department of Transportation. Project Manager. Responsible for producing construction documents for the pavement preservation/striping project within a six-week design schedule. The S.R.101L HOV Lane Widening Project will modify the lane configurations for eastbound S.R. 101L from the S.R. 101L / I-17 Interchange to 7th Avenue. A portion of Ramp S-E and a section of S.R. 101L near the eastbound S.R. 101L/I-17 TI exit ramp gore will also be re-striped. \$40,809 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION (City and State) S.R. 303 Roadway and Traffic Engineering and Design, Glendale and Surprise, Arizona	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Arizona Department of Transportation. QA/QC Engineer. Baker designed a six-lane divided highway between Glendale Avenue and Peoria Avenue with a full System Traffic Interchange (TI) connection with Northern Parkway. Baker worked with ADOT to redesign from 30% plans, reducing construction costs. Baker's Roadway and Drainage Group developed an integrated method of stitching roadway and drainage design together with plan production, thereby reducing errors between design, plans, and quantities. \$7,587,725 (Fee) \$126,000,000 (Construction)	<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.)*

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Geoffrey S. Brownell, P.E.	Water Resources Engineer	1. TOTAL 15	2. WITH CURRENT FIRM 5
d. LOCATION <i>(City and State)</i> Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona		Michael Baker INTERNATIONAL	
e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> B.S. Geological engineering, New Mexico State University, 1999		f. PROFESSIONAL TRAINING - REGISTRATIONS AZ, Professional Engineer - Civil, 42317, 2005; CA, Professional Engineer - Civil, 67438, 2004; NV, Professional Engineer - Civil, 020306, 2009; Certified Floodplain Manager, 2002	
g. OTHER PROFESSIONAL QUALIFICATIONS <i>(Organizations, Awards, etc.)</i> Mr. Brownell has experience as a water resources engineer with extensive knowledge of hydrology, hydraulics, floodplain analysis, roadway drainage design, stormwater best management practices (BMP), and fluvial geomorphology. He has a broad range of experience developing hydrologic and hydraulic models for river systems, local and regional watersheds, and urban development. In addition, Mr. Brownell has completed several drainage master plans, designed large storm drain systems, and developed numerous SWPPPs as part of the NPDES program. Mr. Brownell also has extensive experience preparing and reviewing letters of map change (LOMC) submittals, both as a contractor for local cooperating technical partners (CTP) and as a technical study partner for FEMA. Mr. Brownell has managed projects of similar size and scope in Nevada and Arizona and has been active in the floodplain management community in both states.			

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION <i>(City and State)</i> Monterey Downs and Horse Park and Central Coast Veterans Cemetery Specific Plan EIR, Seaside, California	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> <i>City of Seaside.</i> Served as the Project Facilitator for the Monterey County Housing and Redevelopment Office by providing strategic, technical, planning and environmental support services for coordination and processing of various applications and approvals associated with the proposed Monterey Downs and Horse Park Project (Phase I Due Diligence and ENA Negotiations). Since completion of the Phase I Due Diligence and ENA negotiations, now preparing the Environmental Impact Report (EIR) under contract to the City of Seaside. <i>\$579,930 (Fee)</i>	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION <i>(City and State)</i> Design of Loop 303, Lake Pleasant Parkway to I-17, Peoria, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> <i>Arizona Department of Transportation.</i> Water Resources Engineer. Completed Letter of Map Revision application for submittal to FEMA. Baker has one of the first of many projects to design Loop 303: a brand new interim four-lane divided expressway to be constructed from Lake Pleasant Parkway to I-17. This project includes the final design and preparation of construction plans, specifications and estimate (PS&E) for constructing the interim S.R. 303L from Lake Pleasant Parkway to I-17. This design will also accommodate the future freeway to freeway connection to S.R. 74, service interchanges to local streets as well as the S.R. 303L/I-17 system interchange. <i>\$11,255,500 (Fee) \$70,000,000 (Construction)</i>	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION <i>(City and State)</i> Regional Task Orders for the Flood Map Modernization Program, Nationwide	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> <i>FEMA.</i> Reviewer. Reviewed LOMC submittals to ensure technical accuracy and compliance with FEMA's guidelines and specifications. Baker is performing various tasks leading to the development of digital flood insurance rate maps (DFIRM) and supporting the Map Modernization program in all 10 FEMA Regions. Support tasks include maintenance and management of the web-based Mapping Information Portal (MIP), outreach, cooperating technical partner coordination, coastal guideline and specification updates, technical assistance, project monitoring, support and attendance at conferences, training, post-preliminary support, physical map revisions, floodplain boundary standard documentation, levee research and database support, and other general technical support. <i>\$21,986,992 (Fee)</i>	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION <i>(City and State)</i> FEMA and Floodplain Management Map Maintenance Services, Maricopa County, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> <i>The Flood Control District of Maricopa County (FCDMC).</i> Project Manager. Baker is providing mapping support to integrate 13 floodplain delineation studies into Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) data layers. The studies include Upper Daggs Wash, Gavilan Peak, Rio Verde, Theba, Luke Wash, Rainbow Valley, Tres Rios, Rodger Creek, Wittman/Surprise, Wittman Phase III, Palo Verde, and Chandler/Gilbert Phases 1, 2, and 3. Baker will acquire base map data, perform technical review of hydrologic and hydraulic analyses, incorporate floodplain boundary data into a master geodatabase, and develop a draft Digital Flood Insurance Rate Map (DFIRM) database. The end product will consist of Preliminary DFIRM/FIRM Panel and respective flood insurance study updates provided to the district and FEMA for finalization. <i>\$510,768 (Fee)</i>	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION <i>(City and State)</i> Willow Springs Phase II Floodplain/Floodway Delineation, Maricopa County, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> <i>The Flood Control District of Maricopa County (FCDMC).</i> Project Manager. Baker provided a detailed re-delineation of approximately 6.3 miles of Zone AE floodplain/floodway for Willow Springs Wash and Tributaries. Baker also provided project coordination, collected and reviewed pertinent data, conducted field surveys, performed new hydrologic modeling, delineated floodplains and floodways, and delivered digital data. <i>\$132,281 (Fee)</i>	<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	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
Natalie F. Carrick, P.E.	Traffic Engineer	1. TOTAL 11	2. WITH CURRENT FIRM 4
d. LOCATION (City and State) Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona		Michael Baker INTERNATIONAL	
e. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Civil Engineering, Arizona State University, 2003		f. PROFESSIONAL TRAINING - REGISTRATIONS AZ, Professional Engineer - Civil, 49996, 2009	
g. OTHER PROFESSIONAL QUALIFICATIONS (Organizations, Awards, etc.) Ms. Carrick holds a B.S. degree in Civil Engineering and is a registered Professional Engineer in the State of Arizona. She has experience in the Traffic and Transportation fields. Her experience includes performing TIAs, traffic signal warrant evaluations, level-of-service analyses, accident research and analyses, travel time analysis, signal timing and coordination, designing plans for new and modified traffic signals, traffic signal interconnects, and signing and pavement marking. Ms. Carrick has completed more than 100 traffic impact analyses, over 20 miles of signing and marking designs and over 25 traffic signal designs. She has experience with project specifications and estimates and is proficient in Synchro, Traffix, AutoCAD and MicroStation.			

H. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		Professional Services	Construction (if applicable)
1.	(1) TITLE AND LOCATION (City and State) Logo Sign Placement in Urban Areas – Phase 2; Section 2 – S.R. 202L Red Mountain, Arizona	2014	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <i>Arizona Department of Transportation.</i> Traffic Engineer. Responsible for the design/placement of the logo signs and field verifying for constructibility. Also responsible for reviewing plan sheets for accuracy. The Grand Canyon State Logo Signs (GCSLS) – A Program of the Arizona Department of Transportation (ADOT), procured and continues to procure design consultants through the ADOA Annual Request for Qualifications to work on Logo Sign Placements in Urban Areas. The purpose of the Logo Sign Placement project was to identify suitable locations in compliance with MUTCD and ADOT traffic engineering standards for the installation of Specific Service Signs along Urban Freeway segments in the Phoenix Metropolitan area. Baker provided design services for the section of the S.R. 202L from 24th Street to Broadway Road (15 exits in total). Specific tasks included identifying suitable locations for the installation of specific service (logo) signs along the corridor. Baker obtained MicroStation files from multiple consultants through permission from ADOT. After several field reviews verifying base files and as-builts, Baker prepared roll plots depicting the location of new logo signs and identified existing signs that required relocation. Baker maximized the allowable number of logo signs at each exit. At locations where existing non-logo signs prohibited the placement of a new logo sign, Baker evaluated and recommended alternative locations for mandatory overhead guide signs in order to place new logo signs. At one of the Traffic Interchanges, additional design needed to be completed to accommodate many of the existing overhead guide signs. Baker has successfully completed and submitted final PS&E documents to ADOT and GCSLS. \$112,875 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION (City and State) Paradise Valley Town-Wide Traffic Signal and Intersection Improvements, Paradise Valley, Arizona	2015 (est.)	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <i>Town of Paradise Valley.</i> Project Manager. Responsible for managing the signal study project, conducting field inventory of all 12 town-operated signals, determining deficiencies, and making recommendations for improvements along with the cost estimates associated with the recommendations. Baker developed signal timing and coordination plans for all 12 signalized intersections within the town, identified intersections with non-compliant ADA pedestrian ramps, made recommendations for improvements and developed final plans, specifications and estimates to improve the signal equipment and sidewalk ramps. The design of the traffic signal equipment upgrades included new cabinets and controllers, new 12" signal heads, new poles, and complete re-wire of the signal following the City of Scottsdale Traffic Signal Design Standards. Baker is currently working with the JOC contractor to provide post-design services. Specific project challenges included locating new signal equipment in areas congested with shallow utilities. This required close coordination with utility companies to avoid existing utilities when possible and working with the utility owner's when relocation of their facilities were required. Needs assessment: \$29,294 (lump sum) Design: \$250,000 (lump sum)	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION (City and State) U.S. 290, Manor Expressway Design-Build Services, Travis County, Texas	2014 (est.)	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <i>Central Texas Regional Mobility Authority.</i> Traffic Engineer. Responsible for providing design services for a temporary traffic signal needed during the various construction phases of the project. As part of a design-build team, Baker is leading engineering services for the Manor Expressway (U.S. 290 east), a fully controlled-access, six-mile-long toll highway that is being constructed in the median of U.S. 290, between U.S. 183 and Parmer Lane to east of S.H. 130. The Manor Expressway will alleviate congestion and safety concerns and support the regional transportation network. Baker is developing designs for the new highway, bridges, and frontage roads, including drainage systems and traffic control. \$17,257,470 (Fee) \$210,000,000 (Construction)	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION (City and State) ADOT On-Call District Minor, Safford, Arizona	2014 (est.)	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <i>Arizona Department of Transportation.</i> Task Manager. Responsible for managing the traffic engineering task including signing and marking plans, traffic signal plans, traffic control plans, quantities, and specifications. Baker is responsible for developing the civil and traffic engineering final design elements for the project. This includes intersection improvements and pedestrian facility enhancements such as signing and pavement markings, replacing traffic signals, and making changes to intersections between two state routes. \$192,592 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION (City and State) U.S. 160 Construction Traffic Control Plans, Navajo County, Arizona	2013	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <i>Arizona Department of Transportation.</i> Project Manager. Responsible for managing the signing and marking and traffic control plans, quantities, and specifications for the widening of S.R. 264 to accommodate the new passing lanes in each direction. Baker is developing traffic control plans, pavement marking plans, cost estimate, and special provisions detailing the necessary traffic control to coincide with construction of passing lanes on U.S. 160 from S.R. 564 to Tsegi (milepost 375 to 377). Baker will prepare detailed traffic control plans for the installation and removal of the temporary concrete barrier (TCB). Baker will coordinate with district staff to develop construction phasing concepts and construction durations for each construction. The plans will include traffic control for grading and paving of new eastbound and westbound passing lanes, extension of minor drainage structures, and installation of rumble strips and ATR loop. Baker will also develop double-stacked final signing and pavement marking plan view sheets at 40-scale from MP 375 to MP 377. \$40,564 (Fee)	<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 James Ryan Christensen, P.E., LEED AP	b. ROLE IN THIS CONTRACT Water/Wastewater Engineer	c. YEARS EXPERIENCE	
		1. TOTAL 13	2. WITH CURRENT FIRM 10
d. LOCATION <i>(City and State)</i> Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona		Michael Baker INTERNATIONAL	
e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> B.S.C.E., Civil and Environmental Engineering, Brigham Young University, 2000; M.S.C.E., Civil Engineering (Water Resources), Brigham Young University, 2001		f. PROFESSIONAL TRAINING - REGISTRATIONS AZ, Professional Engineer - Civil, 41186, 2004 CA, Professional Engineer - Civil, C65007, 2003 LEED Accredited Professional, , 2009	

g. OTHER PROFESSIONAL QUALIFICATIONS *(Organizations, Awards, etc.)*
 Mr. Christensen is experienced in project management, design, planning, and construction management of water/wastewater projects. His background includes planning, engineering, and permitting of pump stations, water mains, sewer mains, wells, lift stations, force mains, water treatment plants, and reservoirs. He is also experienced in hydraulic modeling and master planning of water and wastewater systems. Mr. Christensen has been extensively involved in providing public outreach, and presenting to City councils.

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION <i>(City and State)</i> Effluent Transmission Road Improvements, Buckeye, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Town of Buckeye.</i> Lead Water/Wastewater Manager. The project included preparing a design concept report and alignment study for a 20-inch diameter effluent transmission main. This project included identifying various potential water line alignments and recommending a preferred alignment. As part of this project, reclaimed water irrigation demands were calculated and a mass balance was prepared for the City's water reclamation facility effluent production. A effluent booster pump station was also designed as part of this project. <i>\$76,370 (Fee)</i>	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION <i>(City and State)</i> S.R. 86, Valencia Road to Kinney Road, Tucson, Arizona	(2) YEAR COMPLETED	
		Professional Services 2014	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Arizona Department of Transportation.</i> Technical Manager. Responsible for the design of the realignment of a 42-inch diameter transmission main. Baker designed seven miles of S.R. 86 upgrading it from a two-lane road to a four-lane divided highway from Kinney Road to Valencia Road. The project included and the reconstruction of five intersections, 13 drainage structures, two bridges, temporary and ultimate traffic signal designs, and the design and installation of two DMS. To minimize adverse impacts on the adjacent floodplain and existing topography, the new roadway was shifted twice. Baker oversaw the construction phasing design and reviewed ADOT traffic control and signing and marking design for the project. <i>\$4,200,000 (Fee)</i>	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION <i>(City and State)</i> Town of Miami Influent Lift Station, Miami, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>City of Miami.</i> Technical Reviewer. This project included preparing the design plans and specifications for an upgrade to their lift station, consisting of new lift station pumps, piping, site improvements, and electrical design. <i>\$700,000 (Construction)</i>	<input type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION <i>(City and State)</i> Camp Pendleton MCAS AFFF Repair, Oceanside, California	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Oceanside, CA.</i> Project Manager. The project included design of system repairs to the aqueous film forming foam fire protection system at the Marine Corps Air Station Camp Pendleton. This project included the design of a gravity sewer CIPP relining improvements, and various localized repairs to manholes, vaults, and below grade storage tanks. This project as included the design of system repair that required removing and replacing pavement along the flight line. <i>\$65,000 (Fee), \$1.2M (Construction)</i>	<input type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION <i>(City and State)</i> Preliminary Engineer Report (PER), Operation and Maintenance Manual (O&M), and Asset Management Plan for Water System Improvements, Ramah, New Mexico	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Town of Ramah, New Mexico.</i> Water/Wastewater Lead Designer. The project included preparation of a PER, O&M Plan and Asset Management Plan for the Community of Ramah's water system improvements. The PER evaluated four alternatives for water system improvements two of which were a system repair option and a system replacement option. The proposed upgrades consisted of adding an additional deep groundwater well, additional storage to accommodate fire flows and distribution system improvements. The project as included the development of a system specific O&M manual for operation and maintenance of the system. An asset management plan was also a prepared for the system. <i>\$30,000 (Fee)</i>	<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 Kevin J. Kugler, AICP	b. ROLE IN THIS CONTRACT Transportation Planner/Public Involvement	c. YEARS EXPERIENCE	
		1. TOTAL 21	2. WITH CURRENT FIRM 10
d. LOCATION <i>(City and State)</i> Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona			

e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> M.E.P., Urban and Regional Planning, Arizona State University, 2003 B.S., Business Administration, Arizona State University, 1990	f. PROFESSIONAL TRAINING - REGISTRATIONS AZ, American Institute of Certified Planners, 12996, 1997
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g. OTHER PROFESSIONAL QUALIFICATIONS *(Organizations, Awards, etc.)* Mr. Kugler has extensive planning experience that encompass a wide array of planning projects, which includes direct management, oversight, negotiations, leading public meetings and City Council presentations relative to transportation corridor studies and master plans, General Plans, floodplain mitigation, riparian edge design guidelines and rules of development, design concept reports, master planned communities, drafting of General Plans, Specific Area Plans, zoning ordinances, subdivision code updates, land entitlement negotiations and conflict resolution, lead negotiator for sensitive public projects, development agreement negotiations, transportation planning, economic impact studies, watercourse master planning, hillside development guidelines, regional center and commercial site planning, public meeting facilitation, residential subdivision platting, and design guidelines. His Tribal work experiences include five Arizona Tribes having worked particularly close with the White Mountain Apaches and Navajo Nation in establishing the first public transit system in the White Mountain and with the Yavapai-Apache Tribe along with the Town of Camp Verde in a needs assessment and development of a conceptual park master plan. His work experience includes 12 years with the Cities of Phoenix, Show Low and Goodyear, Arizona. Mr. Kugler has planned thousands of acres of residential master planned communities, commercial centers, and business parks while managing a Planning Department in one of Arizona's fastest growing cities.

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION <i>(City and State)</i> Broadway/Rural Drainage Master Plan and Flood Mitigation Alternatives, Tempe, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE The Flood Control District of Maricopa County (FCDMC). Project Manager. Responsible for project management. Baker provided public outreach and involvement support by developing and illustrating various flood mitigation alternatives for three candidate mitigation areas. Baker conveyed FLO-2D modeling results in a graphic and presentation-friendly manner for public consumption and to solicit input from thousands of area property owners. \$14,376.00 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION <i>(City and State)</i> Somerton Zoning Codes and Subdivision Regulations, Arizona	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE City of Somerton. Project Manager. Responsible for project management. Baker, is currently finalizing a comprehensive update to the Somerton Zoning Code and Subdivision Ordinance. Tasks included reorganizing existing zoning code provisions; introducing new uses and definitions; assembling dimensional and development standards into tables and graphically illustrating them; adding new provisions to implement State mandates; simplifying permitting procedures; and reformatting the document to improve readability. In addition, this project required the implementation of a broad city review and public involvement process that included monthly staff roundtable discussions, technical advisory committee meetings, joint commission and council workshops, and community meetings. Several engagement methods were used to elicit feedback during these meetings including the use of handheld polling technology, which allowed participants to "vote" on key issues and see in real time the preferred alternative. \$143,500 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION <i>(City and State)</i> Rio Rico Walk & Bike, Santa Cruz County, California	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Arizona Department of Transportation. Project Manager. Responsible for project management. Baker, will assist Santa Cruz County, who will use this study to program construction of bike lanes and sidewalks to provide safe and convenient pedestrian and bicycle access and connectivity to select Santa Cruz Valley Unified 35 School District facilities. The study identifies short, medium, and long term improvements to sidewalks, trails, street crossings and other bicycle and pedestrian facilities to improve accessibility, safety, connectivity and comfort. The team used a broad array of public and stakeholder outreach including a Youth Workshop, and handheld polling devices during Community Open House events. \$112,220 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION <i>(City and State)</i> ASLD - UPRR Infrastructure	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Arizona State Land Department. Project Manager. Responsible for project management. This project included the complex evaluation, recommendation, infrastructure cost estimation and facilitation of discussions between ASLD, UPRR, Pinal County and other project stakeholders. The project's objective is to identify relevant vehicular access, drainage, water and wastewater infrastructure issues and their respective costs that impact adjacent ASLD lands adjacent to a proposed UPRR Classification Yard whose unique location and property orientation greatly complicate the extension of infrastructure provisions to surrounding ASLD lands. \$50,000 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION <i>(City and State)</i> Surprise General Plan Update, Surprise, Arizona	(2) YEAR COMPLETED	
		Professional Services n/a	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Surprise, City of. Project Manager. Responsible for project management. Baker, updated the city's general plan. The City of Surprise is one of the fastest growing cities in Arizona, with incorporated areas expected to increase significantly over the next several years. Surprise currently encompasses a 310 square-mile planning area and has a current population of 96,000 with projections showing 364,000 by 2020. The recent explosive growth and the projections for the future put the City in a mode to more prudently plan for growth instead of reacting to it. Baker worked with city leaders to solicit citizen input; coordinate with other neighboring cities; and establish short-, medium-, and long-term goals that will mold Surprise into a well-rounded community where residents love to live, work, and play. The fast-track project entailed updating and revising the general plan in order to quickly establish sound goals and policy objectives to guide the city's growth. Developed a coordinated overall framework that fit with existing development, yet was flexible, to manage this growth and to guide infrastructure and economic development throughout the city for the next 15 to 20 years. Following completion of the plan, Baker continued working with the city to develop area plan updates, which were used to fine tune the general plan by more precisely defining and balancing the city's needs for commercial, infrastructure, recreation, and transportation improvements that driven by the current and future influx of residents. \$300,000 (Fee)	<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 Matthew Lamont, R.A., LEED AP	b. ROLE IN THIS CONTRACT Architect	c. YEARS EXPERIENCE	
		1. TOTAL 25	2. WITH CURRENT FIRM 2
d. LOCATION <i>(City and State)</i> Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona		Michael Baker INTERNATIONAL	
e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> B.Arch., Architecture, University of Southern California, 1991		f. PROFESSIONAL TRAINING - REGISTRATIONS AZ, Registered Architect, 37580, 2002; LEED Accredited Professional; ID, Registered Architect, AR 984859, 2007; MT, Registered Architect, 3062, 2008; NV, Registered Architect, 6158, 2007; NM, Registered Architect, 4586, 2008; UT, Registered Architect, 6981077-0301, 2008; , NCARB, 58105, 2004; CO, Registered Architect, 402991, 2012; WA, Registered Architect, 10722, 2013; MI, Registered Architect, 1301060746, 2013	

g. OTHER PROFESSIONAL QUALIFICATIONS *(Organizations, Awards, etc.)*
 Mr. Lamont has extensive experience in health care and mission-critical type projects. His health care project experience includes cancer therapy centers, LDRPs, outpatient surgery centers, and kidney dialysis facilities. He possesses significant telecom experience in serving RBOC and CLEC companies in the southwest United States. His project experience includes wireless towers, microwave repeater arrays, crew operations centers, central office and remote office switching stations, national network data centers and web hosting facilities. Mr. Lamont's DOD/USACE Military Experience includes projects at Beale AFB (548th ISR Group ADP), Luke AFB (VOQ Bldg. 663, 673), Fort Huachuca (Greely Hall energy upgrade, Officers Club energy upgrades), and Davis-Monthan AFB (AMARC Aircraft Parts & Processing Facility).

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION <i>(City and State)</i> Area Development Plan, Beale Air Force Base, California	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE U.S. Army Corps of Engineers, Sacramento District. Participated in the ADP (Area Development Plan) creation, refinement, and issuance. Participated in the on-base charette, and coordinated with units of the 480th ISR WG as well as USACE Sacramento District and Host Base personnel. Led interview and coordination with DPOC-West personnel. Participated with other Baker Team Members in the creation of the architectural narratives and provided QC and oversight to all components of the ADP Report. Baker prepared an area development plan for the 548th Intelligence, Surveillance, and Reconnaissance Group (548 ISR GP) at Beale Air Force Base to optimize the group's campus and accommodate the future live operations and training requirements of the Distributed Ground Station network, as well as the emerging requirements and infrastructures for buildings and utilities that support mission readiness. The 548 ISR GP has been operating at a surge capacity for nearly a decade. \$2,674,500 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION <i>(City and State)</i> Design-Build F-35A Aircraft Engine Shop, Nellis Air Force Base, Nevada	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE U.S. Army Corps of Engineers, Los Angeles District. Principal-In-Charge. Baker is serving as the lead designer for a new design-build, 4,000-square-foot engine maintenance facility attached to the six-bay F 35A aircraft maintenance hangar and aircraft maintenance unit. Baker's services include project management, civil design, architecture, foundation and overall structural design, mechanical design, electrical design, fire protection engineering, and construction services. \$210,797 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION <i>(City and State)</i> Alter Group Parking Study, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE City of Peoria, Arizona. Principal-In-Charge. Led all design and planning efforts, served as chief point-of-contact with the City of Peoria and all project stakeholders. Conducted all presentations to client and stakeholders, and was instrumental in formulating and developing the content of all graphic and written materials used during public presentations. \$26,866 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION <i>(City and State)</i> Henderson PCMTC Generator, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Cox Communications. Principal-In-Charge. Served as the chief planner and designer for the project, and led the onsite due-diligence efforts. As the Nevada Architectural Registrant for the project, sealed all drawings, specifications, and design deliverables. \$15,200 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION <i>(City and State)</i> Data Center Interior and Security System Improvements, Nationwide	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE CenturyLink. Principal-In-Charge. Served as Principal-in-Charge. During calendar-year 2012, coordinated efforts on over 30 A/E Task Orders spread across (10) different States with multiple client Project Managers. Project Delivery methods on Task Orders ranged from Design-Bid-Build and Design-Build-Assist to CMaR and Negotiated Fee. Baker is providing architectural and engineering services for modifications and interior improvements to 15 data centers. Baker's services include architecture and interior design, security system design, and high-level construction cost estimating. Baker is also providing oversight of mechanical, electrical, and plumbing design and construction services by a subconsultant. \$929,626 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm



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Phoenix, Arizona 85007**

4. Resumes of Key Personnel Proposed for this Contract *(Complete one Section 4 for each key person.)*

a. NAME	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
		1. TOTAL	2. WITH CURRENT FIRM
David J. Lawson, P.E.	Structural Engineer	18	12
d. LOCATION <i>(City and State)</i>			
Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona			
e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i>		f. PROFESSIONAL TRAINING - REGISTRATIONS	
M.S.C.E., Structures, California Polytechnic State University, San Luis Obispo, 1997; B.S.C.E., Structures, University of Illinois, 1995		Professional Engineer – Civil: CA, 59055, 1999; AZ, 38412, 2002; AK, 12644, 2010; TX, 110581, 2012; WV, 19953, 2012; UT, Professional Engineer - Structural, 4819593-2203, 2008	
g. OTHER PROFESSIONAL QUALIFICATIONS <i>(Organizations, Awards, etc.)</i> With structural design experience, Mr. Lawson has an excellent track record for producing high quality and cost-effective solutions. David has been directly involved with the design and plan preparation for over 25 bridge projects. He has performed structural engineering design on bridge, building and civil (retaining walls, culverts, sewers) projects for both government (state and federal) and private clients. His experience includes structural design and preparation of construction documents using materials including concrete (cast-in-place, prestressed, & post-tensioned), structural steel, timber, masonry, and light gauge metal. Mr. Lawson has local Load and Resistance Factor Design (LRFD) experience and is very familiar with ADOT standards and personnel.			

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION <i>(City and State)</i> Design of Loop 303, Lake Pleasant Parkway to I-17, Peoria, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable) 2011
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Arizona Department of Transportation.</i> Structural Engineer. Responsible for Lead structural engineer duties for all the bridges. Baker has one of the first of many projects to design Loop 303: a brand new interim four-lane divided expressway to be constructed from Lake Pleasant Parkway to I-17. This project includes the final design and preparation of construction plans, specifications and estimate (PS&E) for constructing the interim S.R. 303L from Lake Pleasant Parkway to I-17. This design will also accommodate the future freeway to freeway connection to S.R. 74, service interchanges to local streets as well as the S.R. 303L/I-17 system interchange. \$11,255,500 (Fee) \$70,000,000 (Construction)	<input checked="" type="checkbox"/> Check if project performed with current firm	
2.	(1) TITLE AND LOCATION <i>(City and State)</i> Preliminary Engineering and Environmental Documentation for the FasTracks I-225 Corridor Project, Aurora, Colorado	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Regional Transportation District.</i> Structural Engineer. Baker provided preliminary engineering design, an environmental evaluation study, and public involvement for the 10.5-mile light-rail extension along the I-225 corridor. Baker evaluated more than 15 conceptual alternatives, for connectivity, compatibility with interstate operations, environmental impacts, constructibility, cost, community impacts and benefits, opportunity for transit-oriented development, and stakeholder support. Baker prepared preliminary design plans for the LRT alignment, stations, park-and-ride, and related roadway improvements. Baker also led an extensive stakeholder and public involvement program, including a mentoring program for students at area middle schools and high schools. \$10,532,928 (Fee)	<input checked="" type="checkbox"/> Check if project performed with current firm	
3.	(1) TITLE AND LOCATION <i>(City and State)</i> Specialty Load Rating Analyses of Bridges for Super Load Transport, San Clemente, California, to Clive, Utah	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Perkins Specialized Transportation.</i> Lead Structural Engineer. Baker performed load rating analyses and substructure analyses of more than 50 Caltrans and locally owned bridges as part of a project to support a 700-ton, 400-foot long heavy load to be transported over an 800-mile route from the San Diego, California area, through Nevada, to a nuclear waste depot near Salt Lake City, Utah. The analysis calculations were submitted to Caltrans Structural Maintenance and Inspection Group for their review and acceptance. The load rating was performed on behalf of a specialized heavy transportation contractor to obtain permits to transport these Superloads using a purpose-built transporter consisting of 33 axle lines (each with 4 wheel lines with a 20-foot overall width between tires) and over 375 feet long. The total weight of the transporter and load was approximately 715 tons with typical axle weights of over 51,000 lbs. During the transport operations, Baker worked with the transporter to establish the correct position on each bridge where the transporter could travel and conducted pre-move and post-move bridge inspections with Caltrans bridge engineers to ensure that no damage to the bridges occurred. \$713,191 (Fee)	<input checked="" type="checkbox"/> Check if project performed with current firm	
4.	(1) TITLE AND LOCATION <i>(City and State)</i> Highway Construction Project Alternative Contract Delivery Assistance, Statewide, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Arizona Department of Transportation.</i> Lead Structural Engineer. Baker is assisting with development and implementation of alternative contract delivery administration for highway construction projects. Baker will assist with matching project scopes with delivery methods; developing contract documents and requests for proposals; selecting and negotiating with contractors; offering advice on project development and construction management; evaluating schedules; developing independent cost estimates, value analysis, value engineering, and constructibility plan reviews; and reviewing traffic control proposals and contractor phasing plans. Baker served as prime consultant for the design concept report and environmental documentation for the addition of high occupancy vehicle (HOV) lanes along the 30-mile stretch of State Route Loop 101, between I-10 and Tatum Boulevard. Baker was subsequently retained to serve as the general engineering consultant (GEC) for the design-build team and was tasked with assignments related to design-build improvements, including scope of work and request for qualification/request for proposal package development, design review, and construction administration. \$1,551,427 (Fee)	<input checked="" type="checkbox"/> Check if project performed with current firm	
5.	(1) TITLE AND LOCATION <i>(City and State)</i> U.S. 36 Managed Lanes BRT Phase I Design-Build, Broomfield, Colorado	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>HDR Engineering, Inc.</i> Structural Engineer. As part of the Ames-Granite JV Team, Baker is providing roadway, bridge, retaining wall, drainage, and traffic design services. The project will widen U.S. 36 to accommodate 12-foot-wide inside and outside shoulders, the addition of an express lane in each direction for BRT, High Occupancy Vehicles (HOV) and tolled Single Occupancy Vehicles (SOV), and install a separate commuter bikeway along the corridor. This project is located in a recreational hub of trails for non-motorized users, requiring extensive design and construction of trail underpasses. In addition to HOV and SOV vehicles utilizing the U.S. 36 managed lanes, the Regional Transportation District will also be using the managed lanes as BRT lanes. The managed lanes are center buffer separated with stations located on the outset of the roadway limits. The buses enter/exit the managed lane at designated locations, typically at interchanges. The managed lane system is a fully integrated managed lane with automated advanced traffic management systems (ATMS). \$4,057,958 (Fee)	<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	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
		1. TOTAL	2. WITH CURRENT FIRM
John Gary Matthews, GISP, CFM	GIS	16	15
d. LOCATION (City and State) Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona		<div style="border: 1px solid black; padding: 2px; display: inline-block;"> Michael Baker <small>INTERNATIONAL</small> </div>	
e. EDUCATION (DEGREE AND SPECIALIZATION) B.A., Geography, Simon Fraser University, 1998 Certificate, Spatial Information, Simon Fraser University, 1998		f. PROFESSIONAL TRAINING - REGISTRATIONS Certified Floodplain Manager, US-08-03393, 2008 Certified GIS Professional, 00060702, 2009	

g. OTHER PROFESSIONAL QUALIFICATIONS (Organizations, Awards, etc.)

Mr. Matthews is an experienced geographic information systems (GIS) specialist. He spent one year working on a 3D mapping project for the government of British Columbia, and for more than nine years he performed mapping for the FEMA Flood Mapping program. For five of those years he supported the FEMA Response/Recovery Division Mapping program in the Mapping and Analysis Center (MAC). For three years of his tenure there he was the technical lead in charge of production and training. Mr. Matthews led production/mapping efforts for the terrorist attacks on September 11, the Shuttle Columbia disaster, and Hurricanes Katrina and Rita. Mr. Matthews has also worked for the FEMA Map Modernization Program, supporting the Comprehensive Flood Risk Resources and Response joint venture, which provides updated flood maps to counties affected by tropical Storm Allison. Mr. Matthews has also supported various other GIS projects, including the U.S. Customs and Border Patrol's Primary Fence Construction along the southern border, Fort Huachuca Real Property Master Plan Update, Buckeye FRS Rehabilitation, Canada Del Oro Hydrologic Study, Lackland AFB Preliminary Design Recruit Housing and Training Replacement Program, Maricopa County On-Call Physical Map Revision (PMR), and Alaska Stand Alone Gas pipeline project.

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION (City and State) Civil Engineering for Transportation Enhancement Projects, Various Locations, Arizona	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Arizona Department of Transportation. GIS Specialist. Duties included data conversion in and out of CAD and GIS environments, field GPS unit preparation, and mapping support. Baker is providing civil engineering services for a variety of transportation enhancement projects, including pedestrian and shared-use pathways, curbs, gutters, and sidewalks. Baker is preparing Americans with Disability Act-compliant conceptual plans, evaluating locations and materials, developing drainage plans, and providing utility coordination. \$336,900 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION (City and State) Design of Loop 303, Lake Pleasant Parkway to I-17, Peoria, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable) 2011
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Arizona Department of Transportation. GIS Specialist. Responsible for drainage report map production. Baker has one of the first of many projects to design Loop 303: a brand new interim four-lane divided expressway to be constructed from Lake Pleasant Parkway to I-17. This project includes the final design and preparation of construction plans, specifications and estimate (PS&E) for constructing the interim S.R. 303L from Lake Pleasant Parkway to I-17. This design will also accommodate the future freeway to freeway connection to S.R. 74, service interchanges to local streets as well as the S.R. 303L/I-17 system interchange. \$11,255,500 (Fee) \$70,000,000 (Construction)	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION (City and State) Mapping Information Platform (MIP) Support, Prescott, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE City of Prescott. GIS Specialist. Duties included MIP administration and metadata processing. Baker is providing services to update the Mapping Information Platform (MIP) for the Prescott Flood Study expected to begin January 2011 and conclude January 2012. The MIP updates will revise the project progress on a monthly basis. Baker will prepare various reports requested by the city that can be generated from the MIP. Baker will also create the study area geodatabase and perform metadata uploads at the completion of preparation of basemap datasets, terrain development, field survey, and engineering (hydrology and hydraulics). \$11,963 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION (City and State) Show Low Traffic Study, Show Low, Arizona	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Arizona Department of Transportation. GIS Specialist. Responsible for report exhibit creation, Census Bureau data acquisition, GIS data analysis, and GIS Data management. The purpose of the Show Low Trails and Transit Connectivity Study is to improve and enhance the inter-connectivity of trails and transit mobility in the City of Show Low and transit efficiency in the White Mountains, including the communities of Pinetop-Lakeside, Snowflake, Taylor, Holbrook and the White Mountain Apache Tribe. \$226,550 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION (City and State) AZ Dept of Environmental Quality Report – Statewide	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Arizona Department of Transportation. GIS Specialist. The Baker Team assisted ADOT with simplifying the transportation conformity process and establishing a general uniformity through the development of an Air Quality Guidebook for Transportation Conformity. The guidebook was designed as a tool for technical staff and included detailed examples and procedures as well as detailed tables and maps, highlighting nonattainment and maintenance areas by criteria pollutant, MPO and COG. Role was in report exhibit creation, GIS data analysis, GIS Data management. \$207,780 (Fee)	<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 Scott A. Nelson, R.L.S.	b. ROLE IN THIS CONTRACT Surveyor/GIS	c. YEARS EXPERIENCE	
		1. TOTAL 29	2. WITH CURRENT FIRM 2
d. LOCATION <i>(City and State)</i> Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona		Michael Baker INTERNATIONAL	
e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> B.S.E., Surveying, Iowa State University, 1984		f. PROFESSIONAL TRAINING - REGISTRATIONS AZ, Land Surveyor, 21782, 1988 NV, Land Surveyor, 8553, 1989	

g. OTHER PROFESSIONAL QUALIFICATIONS *(Organizations, Awards, etc.)*
Mr. Nelson is a registered land surveyor in Arizona and Nevada. He has successfully managed numerous projects and performed field surveys using the latest global positioning system equipment. Mr. Nelson's experience includes research; right-of-way centerline and corridor calculations and analysis; and preparation of right-of-way surveys, plans, and exhibits. He has exceptional experience and proficiency in MicroStation, AutoCAD, Trimble Geomatics Office, and Microsoft Word® and Excel®. He has been a survey department manager and project manager for many years, responsible for all aspects of multiple survey projects, including budgeting, technical services, project coordination, and client relationships.

H. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		Professional Services	Construction (if applicable)
1.	TO#1 S.R.169/Cherry/Orme Rd PA, Dewey, Arizona	2013	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Arizona Department of Transportation. Survey Project Manager. Responsible for preparing topographic design base mapping at the intersection of S.R.169 and Orme Road. Performed research for existing right-of-way documents and plans and survey existing right-of-way monuments in field to establish existing ADOT right-of-way in project area. Surveyed highway cross sections and as-built culvert crossing and utilities along with setting of aerial panels. \$103,026 (Fee)</i>	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	CM#59 US60/Penrod Lane Intersection, Show Low, Arizona	2014 (est.)	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Arizona Department of Transportation. Survey Project Manager. Responsible for preparing results of survey and final right-of-way plans for construction and right-of-way project to improve safety and traffic operations along US 60 by providing additional roadway capacity. The project involves widening the east side of Penrod Lane south of US 60 to provide a dedicated right hand turn lane on eastbound US 60. \$43,454 (Fee)</i>	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	Assignment No. 1/Lower Salt River Delineation Study, Phoenix, Arizona	2013	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Flood Control District Maricopa County. Survey Project Manager. Provided two-foot contour interval floodplain mapping over approximately 9,250 acres of the Salt River Corridor. Established three Airborne GPS base stations and 28 aerial panels for aerial flight. Surveyed 15 cross sections of river bottom for aerial mapping quality control checks. Deliverables conformed to FCDMC and FEMA mapping guidelines. \$211,951 (Fee)</i>	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	W91278-10-D-0102/005 /M-13-26, Fort Bliss, El Paso, Texas	2013	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>US Department of Defense. Survey Project Manager. Provided surveying support services for LIDAR mapping the area north of the former Castner Range encompassing approximately 14,000 acres northwest of El Paso, Texas. Established survey control network on UTM Zone 13 WGS 84 and NAVD88. Located four Photo ID points and 45 ground check shots for LIDAR mapping quality control checks.</i>	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	I-19/San Xavier Rd – Jct. I-10, Tucson, Arizona	2014 (est.)	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Arizona Department of Transportation. Survey Project Manager. Prepared Results of Survey and Existing right-of-way Exhibit Maps 10-mile portion of I-19 and I-10 including the I-10/I-19 interchange for future construction projects along I-19. Located in the Tucson metropolitan area, the project included many older areas of Tucson requiring extensive research to determine over 75 sectional corners and the existing right-of-way corridor. This project has required the calculations of multiple Existing right-of-way centerlines to accurately reestablish the right-of-way corridor. The existing R/W of many arterial side streets were also established for the survey.</i>	<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	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
		1. TOTAL	2. WITH CURRENT FIRM
Barrett C. Olson, P.E.	Roadway Engineer	22	5
d. LOCATION (City and State) Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona			
e. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Civil Engineering, University of Arizona, 1992		f. PROFESSIONAL TRAINING - REGISTRATIONS AZ, Professional Engineer - Civil, 31706, 1997	
g. OTHER PROFESSIONAL QUALIFICATIONS (Organizations, Awards, etc.) Mr. Olson brings 19 years of roadway design experience with municipal roadway projects. He has gained valuable experience in the areas of urban freeways, municipal roadways, geometrics, earthwork, drainage, utility relocation, traffic control, quantity computations, cost estimating, and preparation of final contract documents. He has also successfully completed projects meeting ADOT requirements for federally funded local governments' projects. Mr. Olson served as project manager and/or senior engineer on numerous roadway projects, responsible for the coordination of all design aspects.			

H. RELEVANT PROJECTS

4.	(1) TITLE AND LOCATION (City and State) S.R. 86, Valencia Road to Kinney Road, Tucson, Arizona	(2) YEAR COMPLETED	
		Professional Services 2014	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <i>Arizona Department of Transportation.</i> Project Engineer. Baker designed seven miles of S.R. 86 upgrading it from a two-lane road to a four-lane divided highway from Kinney Road to Valencia Road. The project included the reconstruction of five intersections, 13 drainage structures, two bridges, temporary and ultimate traffic signal designs, and the design of two DMS. To minimize adverse impacts on the adjacent floodplain and existing topography, the new roadway was shifted twice. Baker oversaw the construction phasing design and reviewed ADOT traffic control and signing and marking design for the project. \$4,200,000 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION (City and State) Alaska Stand Alone Gas Pipeline/ASAP, North Slope to South Central, Alaska	(2) YEAR COMPLETED	
		Professional Services 2015 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <i>Alaska Gasline Development Corporation (AGDC).</i> Project Engineer. Responsible for creating an innovative solution to streamline the identification and creation of right-of-way easements from a 900 mile long pipeline corridor. Baker is providing preliminary pipeline engineering, geotechnical and thermal analysis, GIS services, cost estimating, regulatory support, and owner project planning support for a gas pipeline system from the Alaska North Slope to the South Central region. The route is more than 730 miles, north to south. \$29,077,799 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION (City and State) VelociRFTA Bus Rapid Transit Advanced Preliminary Engineering and Final Design, Garfield, Eagle, and Pitkin Counties, Colorado	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <i>Roaring Fork Transportation Authority.</i> Project Engineer. Responsible for the creation and execution of a QA/QC recovery plan. Baker is providing project management and engineering services for a new a new Bus Rapid Transit (BRT) route from Glenwood Springs to Aspen along State Highway 82. Baker will manage all engineering and architecture activities for the BRT stations and platforms, park and rides, roadway improvements, and traffic signal improvements. Baker will provide 60%, 90%, and 100% design plans, Basis of Design and Station Standards reports, and support for environmental commitments from the National Environmental Policy Act (NEPA) process. Additionally, Baker will facilitate meetings, oversee construction budgets, and coordinate communication with outside agencies and interested public organizations. \$2,551,476 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION (City and State) IH 35 Trans Texas Corridor (TTC) Study, IH 10 to Oklahoma State Line, Texas	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <i>Texas Department of Transportation, Texas Turnpike Authority.</i> Project Engineer. Responsible for design and analysis for implementation of managed lanes within an existing freeway corridor. Design elements included roadway design, alternative analysis, horizontal and vertical geometry, quantities, and exhibit production. The Texas Turnpike Authority of the Texas Department of Transportation selected Baker to perform professional and project management services including preliminary engineering and environmental services for one or more segments of independent utility of the Trans-Texas Corridor. This work included the production of an Environmental Impact Statement (through receipt of a Record of Decision), developing overview environmental documents identifying segments of independent utility for one or more corridors, systems planning, and preliminary engineering. \$6,587,192 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION (City and State) Lakefront West Corridor Planning, Cleveland, Ohio	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <i>Ohio Department of Transportation, District 12.</i> Project Engineer. Responsible for overall quantity coordination between all design team members. Baker provided engineering and environmental studies for the Lakefront West Plan. The project, which will connect the city's west side neighborhoods with the lakefront by creating multi-modal connections along the West Shoreway between West Boulevard and the Main Avenue Bridge, will increase access to Lake Erie; improve green space, biking, and pedestrian facilities; increase development potential; and simplify connections along a currently limited-access freeway. Baker developed and reviewed preliminary alternatives for constructibility, conducted traffic modeling and analysis, identified potential impacts to natural and human resources, developed a categorical exclusion environmental document, produced project mapping and construction design documents, and reviewed public involvement activities and materials. \$11,505,149 (Fee) \$40,000,000 (Construction)	<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 Daniel J. Pottinger, P.E.	b. ROLE IN THIS CONTRACT Civil Engineer/Land Development	c. YEARS EXPERIENCE	
		1. TOTAL 17	2. WITH CURRENT FIRM 17
d. LOCATION <i>(City and State)</i> Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona		Michael Baker INTERNATIONAL	
e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> B.S., Civil Engineering, North Dakota State University, 1996		f. PROFESSIONAL TRAINING - REGISTRATIONS AZ, Professional Engineer - Civil, 36384, 2000 CA, Professional Engineer - Civil, C60766, 2000	

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

Mr. Pottinger is an experienced Engineer with a varied civil engineering background. He has been involved with public and private sector projects that have included roadway projects, grading design, potable water distribution, reclaimed water lines, raw water lines, plan review, sanitary sewer, utility coordination, hydraulics, hydrology, and cost estimates. His project experience ranges from site improvements for 10,000 SF well sites to 6,000-acre master planned communities.

During his professional career, Mr. Pottinger has coordinated with multiple entities and governmental agencies. Mr. Pottinger has experience in dealing with the Arizona State Land Department, Army Corp of Engineers, Federal Emergency Management Agency, Arizona Department of Water Resources, Flood Control District of Maricopa County, and the Bureau of Land Management. Mr. Pottinger is directly involved with the Quality Assurance and Quality Control of every plan set that the Phoenix office produces through his role on the Peer Review Committee. Mr. Pottinger is responsible for scheduling and conducting a multidiscipline QA/QC of every project prior to major project milestones. This process helps ensure a complete and constructible plan set is delivered to the Client on every project.

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION <i>(City and State)</i> Data Center Interior and Security System Improvements, Nationwide	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE CenturyLink. Project Engineer. Prepared construction documents for grading, drainage, and utility improvements to existing CenturyLink facilities. The improvements are needed to serve a new customer service building, alleviate flooding issues of existing structures, and to improve traffic circulation within the site. The project is being coordinated through the City of Henderson and Nevada Department of Transportation. Baker is providing architectural and engineering services for modifications and interior improvements to 15 data centers. Baker's services include architecture and interior design, security system design, and high-level construction cost estimating. Baker is also providing oversight of mechanical, electrical, and plumbing design and construction services by a subconsultant. \$929,626 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION <i>(City and State)</i> City of Phoenix Water Main Replacement Program - 52nd St./53rd Pl., Doubletree Ranch Rd. to Hatcher Rd., Phoenix, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE City of Phoenix, Arizona. Project Manager. Responsible for project management. Baker provided design services for 2,000 LF of 6" water main, five fire hydrants, one cut and plug, and 24 water service connections. \$45,514 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION <i>(City and State)</i> Water Main Replacement On-Call, Phoenix, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE City of Phoenix, Arizona. Project Manager. Responsible for project management. Baker provided design services for the replacement of 9,950 linear feet of water main within the city quarter sections 12-29 and 12-30. The project included design of various size water mains, 171 water service connections, utility research, public water line abandonment (cut & plug), new fire hydrants, cost estimating, and topographic surveys and base mapping. \$221,991.07 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION <i>(City and State)</i> City of Grace Site Improvements, Scottsdale, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE City of Grace. Project Manager. Baker performed hydrology, preliminary hydraulics, and preliminary site grading for a church site located at Cactus and 96th Street. The design was needed to address a shortage of parking spaces during church services. The project investigates alternatives for drainage retention, including offsite basins, underground retention, and bleed-off into adjacent washes. The project included coordination with a City of Scottsdale and Flood Control District of Maricopa Project improvement project. \$18,377 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION <i>(City and State)</i> Fourth Avenue Pedestrian Corridor and Senior Living Sidewalk, Buckeye, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Town of Buckeye. Project Manager. Baker, prepared final plans, specifications, and estimates for implementation of pedestrian corridors in the Valencia area of Buckeye. The project also included a pedestrian link between the Senior Living Center and the Buckeye Sports Fields. The project was one segment in a series of pedestrian links planned for the Valencia area. The work included the addition of curb, gutter, and sidewalk to Fourth Avenue, drainage evaluation, intersection improvements, and bid phase assistance. This project was performed as part of a Town of Buckeye On-Call Contact. \$206,022 (Fee)	<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 Simon Pratt, P.E.	b. ROLE IN THIS CONTRACT Roadway/Transportation Engineer	c. YEARS EXPERIENCE	
		1. TOTAL 27	2. WITH CURRENT FIRM 8
d. LOCATION <i>(City and State)</i> Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona		Michael Baker INTERNATIONAL	
e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> B.S., Civil Engineering, Oxford Polytechnic, UK, 1986		f. PROFESSIONAL TRAINING - REGISTRATIONS AZ, Professional Engineer - Civil, 42766, 2005; Chartered Engineer - UK, 47096119, 1998	
g. OTHER PROFESSIONAL QUALIFICATIONS <i>(Organizations, Awards, etc.)</i> Mr. Pratt has extensive experience in transportation engineering and infrastructure design including preparation of plans, specifications, and estimates for projects ranging from development stage through detailed design and maintenance. He is proficient in design concept development along with final PS&E construction packages for ADOT. He has experience with the utility, right-of-way, and environmental clearance processes. Design experience includes both rural and urban highway design, interchange design, earthwork balancing, construction sequencing, and traffic control. He has a good knowledge of Arizona Department of Transportation (ADOT) and Maricopa County Department of Transportation (MCDOT) standards and specifications.			

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION <i>(City and State)</i> S.R. 89A Viewpoint Drive, Arizona	(2) YEAR COMPLETED	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Arizona Department of Transportation.</i> Assistant Project Manager. Responsible for the design and preparing construction plans and reports. Coordinated the roadway design, utility coordination and drainage along with a detailed traffic analysis. The project consists of adding auxiliary lanes between Glassford Hill Road and Viewpoint Drive the Viewpoint Drive T1 by constructing a three-span, cast-in-place, concrete structure; constructing a signalized intersection at Robert Road; and widening approximately 2.5 miles of S.R. 89A and Fain Road from two lanes to a four lane divided highway. Baker also performed a detailed traffic analysis to design the signals and turn lane requirements at both the Robert Road and Viewpoint Drive ramp intersections \$1,954,400 (Fee), Construction \$18,215,000	Professional Services 2013	Construction (if applicable)
<input checked="" type="checkbox"/>		Check if project performed with current firm	
2.	(1) TITLE AND LOCATION <i>(City and State)</i> I-17 to Fain Rd Connector Corridor Location Study and Environmental Overview, Yavapai County, Arizona	(2) YEAR COMPLETED	
	<i>Arizona Department of Transportation.</i> Project Manager. Responsible for the preparation of the corridor location and environmental overview report for an alternative route that would efficiently move regional traffic while accommodating local and regional development. Coordinated with the public, agencies, subconsultants, and internal discipline groups regarding the continuing growth of the surrounding area and the anticipated congestion on S.R. 69 and S.R. 169. Collected background data to determine and document existing and future conditions; forecasted future traffic volumes and their impact on existing routes; developed and evaluated corridor alignments in terms of changes in land use and land ownership, impacts to biological and cultural resources and changes in travel times on adjacent roadways; and prepared a preliminary drainage study. Baker is developing a corridor location study and environmental overview assessing the need for and feasibility of a potential new route connecting Interstate 17 to the proposed Fain Road Connector. Baker will collect background data and information to determine and document existing and future conditions, forecast future traffic volumes and their potential impact on existing routes, develop and evaluate corridor alternatives in terms of functional characteristics and potential impacts, and prepare preliminary drainage and geotechnical studies. \$436,637 (Fee)	Professional Services 2013	Construction (if applicable)
<input checked="" type="checkbox"/>		Check if project performed with current firm	
3.	(1) TITLE AND LOCATION <i>(City and State)</i> Meridian Road Corridor Study, Apache Junction, Arizona	(2) YEAR COMPLETED	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>ADOT MPD.</i> Project Manager for this 13-mile corridor from Germann Rd to McDowell Rd that is coincident with the County line between Maricopa County and Pinal County. Mike also coordinated the long-range travel demand modeling. Pinal County and the City of Apache Junction are joint sponsors for this ADOT contracted PARA (Planning Assistance for Rural Areas) study. The Study recommends a preferred roadway alignment, roadway improvement, and roadway right-of-way. \$180,000 (Fee)	Professional Services 2013	Construction (if applicable)
<input checked="" type="checkbox"/>		Check if project performed with current firm	
4.	(1) TITLE AND LOCATION <i>(City and State)</i> U.S. Border Pedestrian and Vehicle Fence Design Geospatial Services, Southwestern United States	(2) YEAR COMPLETED	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>U.S. Army Corps of Engineers, Fort Worth District.</i> Engineer. Responsible for design and design coordination of border patrol roads and preparation of a cost estimate for final design. Baker provided geospatial services under a compressed schedule for the concurrent design and construction of 525 miles of pedestrian and vehicle border fence in Texas, Arizona, New Mexico, and California. Baker's geospatial tasks included developing a Spatial Data Standard for Facilities, Infrastructure, and Environment-compliant ArcSDE geodatabase; designing an ArcGIS web portal; and performing topographic surveying and mapping for property acquisition, which entailed collecting GPS data for geodetic control, producing digital orthophotos, developing digital terrain models, and performing metes and bounds surveys. \$6,439,653 (Fee) \$1,200,000,000 (Construction)	Professional Services 2013	Construction (if applicable)
<input checked="" type="checkbox"/>		Check if project performed with current firm	
5.	(1) TITLE AND LOCATION <i>(City and State)</i> I-15 Corridor Expansion, Utah County, Utah	(2) YEAR COMPLETED	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Utah Department of Transportation.</i> Reviewer. Responsible for QC reviews. Baker is performing complete design of a four-mile segment of I-15, including three full interchanges. In addition to designing all the structures within the segment, Baker is designing two, two-span accelerated bridge construction bridges that will be set in place using self-propelled modular transporters. Baker is also providing maintenance of traffic and construction phasing design. Baker team members are serving as the overall structures design manager and overall drainage design manager, overseeing structural and drainage design for the entire design team. \$10,503,021 (Fee)	Professional Services 2013	Construction (if applicable)
<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 Timothy E. Quillman, P.E.	b. ROLE IN THIS CONTRACT Project Manager/General Civil Engineer	c. YEARS EXPERIENCE	
		1. TOTAL 16	2. WITH CURRENT FIRM 10
d. LOCATION (City and State) Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona		Michael Baker INTERNATIONAL	
e. EDUCATION (DEGREE AND SPECIALIZATION) Master's Certificate, Project Management, University of Houston, Clear Lake, 2006; B.S., Civil Engineering, University of Arizona, 1999		f. PROFESSIONAL TRAINING - REGISTRATIONS AZ, Professional Engineer - Civil, 40857, 2004; CA, Professional Engineer - Civil, C68643, 2005 TX, Professional Engineer - Civil, 97633, 2006	
g. OTHER PROFESSIONAL QUALIFICATIONS (Organizations, Awards, etc.) Mr. Quillman is a registered professional engineer in the state of Arizona, California, New Mexico, and Texas with a technical background in civil design along with bridge design and inspection. For the past eight years, Mr. Quillman has gained experience working with the United States Army Corps of Engineers, Fort Worth District (USACE). Over that time span, USACE has been contracted to provide Department of Homeland Security, Customs and Border Protect assistance in improving their tactical infrastructure (TI) for various Border Patrol Sectors (OBP). With USACE as a client, Mr. Quillman has had the opportunity to provide Engineering and Project Management services for upgrading OBP TI which includes items such as roads, fence/barriers, lighting and bridges. In addition to working with USACE, Mr. Quillman also has experience working on ADOT and other local Municipalities bridge design projects. Bridge design experience includes numerous types of both concrete and steel bridges including Precast Prestressed Concrete Girder, Cast-in-place Post-Tension Concrete, Steel Girder and Steel Truss.			

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION (City and State) Rio de Flag Flood Control Bridge Design, Flagstaff	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE City of Flagstaff, Arizona. Project Manager. Responsible for coordinating the design internally, with the City of Flagstaff and with the Corps of Engineers. Baker completed two bridge designs and one project assessment required as part of a flood control project. Baker completed calculations and construction plans and specifications for two two-barrel super box-culverts. The required study was completed where the Rio de Flag crossed historic Route 66, and the project assessment was completed for planning the funding for new construction in the future. Additionally, Baker participated in a value engineering (VE) workshop that resulted in the project team reducing the structure crossings from 11 down to two by implementing closed-channel flow at strategic locations within the upper reach. \$289,441 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION (City and State) Thorpe Road Bridge HEC-RAS Model and Final Design, Flagstaff, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE RCDS Contractors, Inc. Project Manager. Responsible for overall production of the final plans and specifications for construction of the Thorpe Road crossing of the Rio De Flag in Flagstaff Arizona. Also coordinated the Engineering support for RFI and submittal review throughout the construction process. Baker and sub-consultant SWI teamed with contractors RCDS Contractors, Inc. and Hunter to complete the final design and construction of a double barrel concrete arch culvert, associated roadway demolition and re-construction, and associated channel improvements. Final design tasks included floodplain modeling per USACE and FEMA criteria, USACE 404 permitting, and completion of final construction documents. During the construction phase, Baker and SWI provided construction administration support. \$136,290 (Fee) \$2,500,000 (Construction)	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION (City and State) San Diego Sector A-1 All Weather Road Engineering Design, San Diego, California	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE U.S. Army Corps of Engineers, Fort Worth District. Project Manager. Baker provided engineering design services in support of Customs and Border Protection's Border Patrol Facilities and Tactical Infrastructure Program Management Office for the Pedestrian Fence (PF) 225 A-1 All Weather Road Improvements project. A-1 has a 5.2-mile-long construction road that is being improved for use as a part of the border road system. Baker designed safety barriers to protect roadway users from rock and debris falls associated with the steep cut embankments. Baker also designed roadway improvements, including minor grading, subgrade preparation, compacted aggregate surface course, drainage improvements, and installation of traffic warning signs. \$291,564 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION (City and State) Fence and Roadway Design Revision, El Paso, Texas	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE U.S. Army Corps of Engineers, Fort Worth District. Engineering Manager. Responsibilities included project reviews, quality control, and oversight in coordination with the project manager. Coordination efforts with the PM included providing procedures and performance results as well as introduce lessons learned from other similar projects within the southwest border program. Baker revised the fence and roadway design and draft request for proposal (RFP) for 0.62 miles of the K-1B pedestrian fence along the United States Section of the International Boundary and Water Commission (US-IBWC) American Canal in support of the technical infrastructure program for the El Paso Sector of the U.S. Border Patrol. \$87,961 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION (City and State) Border Fence Gate Construction Support, Rio Grande Valley, Southern Border States	(2) YEAR COMPLETED	
		Professional Services 2014	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE U.S. Army Corps of Engineers, Fort Worth District. Technical Manager. Responsibilities included project reviews, quality control, and oversight in coordination with the project manager. Coordination efforts with the PM included providing procedures and performance results as well as introduce lessons learned from other similar projects within the southwest border program. Baker is providing pedestrian border fence construction program support for the design and installation of 42 gates. Baker will furnish architectural and engineering review of the gate contractor's design documents and project management of the gate construction projects. Baker will establish a team of electrical, mechanical, structural, and geotechnical engineers to review gate design calculations, plans, and specifications. The review team will attend site visits to verify that the test gates are designed and will perform in substantial accordance with established specifications. Baker will also set up and attend conference calls and on-site meetings with project stakeholders to discuss design issues and resolution of unforeseen field conditions at gate construction locations. \$399,715 (Fee)	<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	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
		1. TOTAL	2. WITH CURRENT FIRM
Michael W. Sabatini, P.E.	Transportation Planner	38	3
d. LOCATION (City and State) Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona			
e. EDUCATION (DEGREE AND SPECIALIZATION) Graduate Studies, Transportation Planning, University of Arizona, 1988 Graduate Studies, Civil Engineering/Environmental Engineering, University of Illinois at Urbana-Champaign, 1977 B.S.C.E., Transportation, University of Illinois at Urbana-Champaign, 1976		f. PROFESSIONAL TRAINING - REGISTRATIONS AZ, Professional Engineer - Civil, 18781, 1985	

g. OTHER PROFESSIONAL QUALIFICATIONS (Organizations, Awards, etc.) Mr. Sabatini offers more than 35 years of experience, including 18 years with the Maricopa County Department of Transportation (MCDOT), the final 15 years as the Engineering & Transportation Planning Division Manager, and five years as the Long Range Planning Branch Manager for the Pima Association of Governments Transportation Planning Division (PAGTPD). His Divisions and Branches were responsible for compliance with Federal planning guidelines: travel demand modeling; regional long range transportation plans; sub-regional and small area transportation studies; corridor studies; modal planning; programming; intergovernmental and legislative relations; policy research and development; community relations, including public involvement and public information; and environmental planning, compliance, and mitigation. He routinely used performance measures like volume/capacity, vehicle miles of travel, tons of pollutants, and vehicle delay in regional and small area transportation studies, capital improvement programming, and other planning efforts. He also served for two years as the City Engineer for Rawlins, WY including six months as the Director of Public Works responsible for water supply, treatment and distribution; wastewater collection and treatment; solid waste landfill; streets and an airport for a community of 10,000 people in south central Wyoming. He also worked as a project manager for the Pima County Department of Transportation and Flood Control District for road design and river bank stabilization projects. Additionally, he worked for nearly 10 years for consulting engineering firms in survey, street design and inspection, water distribution design and inspection, wastewater collection design and inspection and land development planning and design.

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION (City and State) Rio Rico Walk & Bike, Santa Cruz County, California	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Arizona Department of Transportation. QA/QC. Santa Cruz County uses this study to program construction of bike lanes and sidewalks to provide safe and convenient pedestrian and bicycle access and connectivity to select Santa Cruz Valley Unified 35 School District facilities. The study identified short, medium, and long term improvements to sidewalks, trails, street crossings and other bicycle and pedestrian facilities to improve accessibility, safety, connectivity and comfort. The team used a broad array of public and stakeholder outreach including a Youth Workshop, and handheld polling devices during Community Open House events. \$112,220 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION (City and State) Cave Creek Carefree Transportation Framework Study, Cave Creek and Carefree, Arizona	(2) YEAR COMPLETED	
		Professional Services 2014	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Maricopa Association of Governments. Project Manager. Baker developed a master transportation plan for Cave Creek and Carefree, AZ. The project included extensive public outreach, existing conditions inventory, development of goals and objectives, alternatives development and analysis and recommendation, policy and funding analysis, phasing recommendations and action plan. The final recommendations included road diets and complete streets in a context sensitive manner to enhance bicycle and pedestrian safety and connectivity. The plan reinforced place making in activity nodes to enhance economic activity and encourage a park once and walk environment. The Councils for both communities unanimously accepted the Study. \$250,000 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION (City and State) Somerton Comprehensive Transportation Plan, Somerton, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Ayers Corporation. QA/QC/Project Management. This study updates a previous plan completed through the ADOT PARA program. The study evaluated all modes of transportation in the context of the regional network and local circulation. Somerton desired to enhance the economic activity of their town center and associated special events. They wished to maintain the regional function of their Main Street but calm the traffic at select times. The context sensitivity embraces the road diet for Main Street through the town center and the study recommended developing parallel streets to allow traffic to bypass the town center during special events. The study also incorporated special transportation service recommendations to enhance the overall transportation system. The shared use path component envisioned a series of walking/biking loops that provide varying degrees of exercise and recreation while also supporting commuter mode alternatives to the vehicle. Trail amenities like trash receptacles, benches, trail markers, and exercise stations enhance the shared use path system and the user experience.	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION (City and State) Meridian Road Corridor Study, Apache Junction, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ADOT MPD. Project Manager for this 13-mile corridor from Germann Rd to McDowell Blvd that is coincident with the County line between Maricopa County and Pinal County. Mike also coordinated the long-range travel demand modeling, Pinal County and the City of Apache Junction were joint sponsors for this ADOT contracted PARA (Planning Assistance for Rural Areas) study. Meridian Road is included in transportation plans for both Counties, Apache Junction, Mesa, MAG and CAG. Maricopa County completed a corridor study for a portion of the corridor in the mid-2000's. Baker compiled the results from all of those studies and updated them for population and traffic information in 2013. The effort included coordination with all project partners as well as major stakeholders in the Arizona State Land Department and the Flood Control Districts of Maricopa County and Pinal County. The Study satisfied the applicant's goal to identify a preferred roadway alignment, roadway facility type and associated cross section elements, and roadway right-of-way to preserve. Baker also prepared a sample Memorandum of Understanding to help guide future corridor development and how the agencies would work together. \$180,000 (Fee)	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION (City and State) Southern Parkway Corridor Study, Maricopa County, Arizona	(2) YEAR COMPLETED	
		Professional Services 2014	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Maricopa County Department of Transportation. Project Manager. Baker was developed a corridor feasibility study for the Southern Parkway corridor identified in the I-10 Hassayampa Valley Transportation Framework Study. The study identified a corridor alignment to allow local jurisdictions to preserve right-of-way for future parkway development. The study collected and evaluated existing and future conditions that influence or prevent the future parkway corridor and developed conceptual alternatives based on that data that were reduced to a limited number of candidate alternatives. The candidates are evaluated in more detail and a preferred alternative was recommended based on that analysis. The process included extensive outreach to affected jurisdictions and other stakeholders. \$320,000 (Fee)	<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 Sam S. Darghous , P.E., PMP	b. ROLE IN THIS CONTRACT Aviation/Customs and Border Protection	c. YEARS EXPERIENCE	
		1. TOTAL 27	2. WITH CURRENT FIRM 15
d. LOCATION <i>(City and State)</i> Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona		Michael Baker INTERNATIONAL	
e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> B.E., Civil Engineering, Youngstown State University, 1991		f. PROFESSIONAL TRAINING - REGISTRATIONS AZ, Professional Engineer, 37541, 2002; PA, Project Management Professional (PMP), 1749566, 2014; OH, Professional Engineer, 66213, 2001	
g. OTHER PROFESSIONAL QUALIFICATIONS <i>(Organizations, Awards, etc.)</i> As vice president and Customs and Border Protection market national director, Mr. Darghous is responsible for the overall financials and development of the growing portfolio in the Homeland Security market. Mr. Darghous has over 20 years of civil engineering and project and program management experience supporting federal projects. Mr. Darghous has also logged thousands of flight hours as a FAA Certificated Commercial Pilot and currently holds a Flight Instructor certificate. His excellent knowledge and experience in Civil Engineering, combined with his aviation and Program Management qualifications makes Mr. Darghous a valued asset to any project or program. His unique background allows him to implement effective engineering solutions that can be practical and cost effective.			

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION <i>(City and State)</i> Border Fence Gate Construction Support, Rio Grande Valley, Southern Border States	(2) YEAR COMPLETED	
		Professional Services 2014 (est.)	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>U.S. Army Corps of Engineers, Fort Worth District.</i> Principal-In-Charge. Oversaw contract negotiations and final contract execution. Participated in project progress meetings. Lead client satisfaction and performance feedback surveys/meetings. Provided feedback and lead Baker internal lessons learned meeting. Baker is providing pedestrian border fence construction program support for the design and installation of 42 gates. Baker will furnish architectural and engineering review of the gate contractor's design documents and project management of the gate construction projects. Baker will establish a team of electrical, mechanical, structural, and geotechnical engineers to review gate design calculations, plans, and specifications. The review team will attend site visits to verify that the test gates are designed and will perform in substantial accordance with established specifications. Baker will also set up and attend conference calls and on-site meetings with project stakeholders to discuss design issues and resolution of unforeseen field conditions at gate construction locations. \$399,715.06 (Fee)	<input checked="" type="checkbox"/> Check if project performed with current firm	
2.	(1) TITLE AND LOCATION <i>(City and State)</i> Tactical Infrastructure Standard Design Toolkit, Southwest Border States	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>U.S. Army Corps of Engineers, Fort Worth District.</i> Principal-In-Charge. Oversaw contract negotiations and final contract execution. Participated in project progress meetings. Lead client satisfaction and performance feedback surveys/meetings. Provided feedback and lead Baker internal lessons learned meeting. Baker is working with the Office of Border Patrol and their Facilities Management and Engineering team to develop standard design criteria, specifications, and details for their Tactical Infrastructure (TI) program. TI includes items such as fence, roads, and lighting that are used in fulfilling Border Patrol operational requirements. Tasks include interviewing sectors across the southwest border, identifying consensus, and standardizing design criteria, specifications, and details for use on future TI projects. \$314,878.17 (Fee)	<input checked="" type="checkbox"/> Check if project performed with current firm	
3.	(1) TITLE AND LOCATION <i>(City and State)</i> BMGR and C-1 Fence Segments Wind Scour Pilot Project, Southwestern Arizona, Arizona	(2) YEAR COMPLETED	
		Professional Services 2012	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>U.S. Army Corps of Engineers, Fort Worth District.</i> Principal-In-Charge. Oversaw contract negotiations and final contract execution. Participated in project progress meetings. Lead client satisfaction and performance feedback surveys/meetings. Provided feedback and lead Baker internal lessons learned meeting. Baker prepared plans, technical specifications, studies, and a construction cost estimate for the Barry M Goldwater Guntery Range (BMGR) and C-1 Fence Segments Wind Scour Stabilization Pilot Project, which consists of three one-half-mile segments of soil stabilization at the primary fence along the U.S.-Mexico International Boundary in the Yuma Sector of the U.S. Border Patrol. Baker developed plans for three treatment methods including a "pre-mixed bonded flowable soil apron" installed on a section of fence in the BMGR, a "mixed-in-place bonded soil apron" used on a separate one-half mile section of the BMGR, and "surface treatment with polymer" installed on a one-half-mile section of the C-1 fence segment. In addition, all of the treated areas will be monitored on a monthly basis for a period of one year to determine their longevity and overall cost effectiveness. \$40,472.40 (Fee)	<input checked="" type="checkbox"/> Check if project performed with current firm	
4.	(1) TITLE AND LOCATION <i>(City and State)</i> Douglas International Ditch Design and Construction Phase Services, Douglas, Arizona	(2) YEAR COMPLETED	
		Professional Services 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>U.S. Army Corps of Engineers, Fort Worth District.</i> Principal-In-Charge. Oversaw contract negotiations and final contract execution. Participated in project progress meetings. Lead client satisfaction and performance feedback surveys/meetings. Provided feedback and lead Baker internal lessons learned meeting. Baker provided design and construction phase services for the Douglas International Ditch, which is located in the City of Douglas, Arizona, adjacent to the international boundary with Agua Prieta, Sonora, Mexico. Tasks were performed under a nationwide architectural and engineering indefinite delivery/indefinite quantity contract. The project will facilitate border patrol access to the channel-and-culvert system for the apprehension of illegal aliens, interdiction of narcotics, and prevention of further erosion and damage to the adjacent roadway and border fence. Joint Task Force North deployment labor and private commercial contractors constructed the project. \$6,616,853.71 (Fee)	<input checked="" type="checkbox"/> Check if project performed with current firm	
5.	(1) TITLE AND LOCATION <i>(City and State)</i> Access Road Construction Deployment Support, Nogales, Arizona	(2) YEAR COMPLETED	
		Professional Services 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>U.S. Army Corps of Engineers, Fort Worth District.</i> Principal-In-Charge. Oversaw contract negotiations and final contract execution. Participated in project progress meetings. Lead client satisfaction and performance feedback surveys/meetings. Provided feedback and lead Baker internal lessons learned meeting. Baker provided construction management, survey, staking, inspection, and material testing in support of scheduled and proposed deployments for construction of two miles of all-weather access roadway along D5A west of the Mariposa Land Port of Entry. The project consisted of four separate deployments over a period of approximately six months. \$542,123.80 (Fee)	<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 Todd Gregory Williams	b. ROLE IN THIS CONTRACT Environmental	c. YEARS EXPERIENCE	
		1. TOTAL 27	2. WITH CURRENT FIRM <1

d. LOCATION *(City and State)*
Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, Phoenix, Arizona **Michael Baker**
INTERNATIONAL

e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> M.Sc., Biology, University of Waterloo, 1993 B.Sc., Biology, University of Toronto, 1989	f. PROFESSIONAL TRAINING - REGISTRATIONS
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g. OTHER PROFESSIONAL QUALIFICATIONS *(Organizations, Awards, etc.)*
Mr. Williams is a program manager with many years of experience leading a wide range of environmental projects, most recently focusing on stormwater management and water quality. He has extensive knowledge in developing and implementing National Pollutant Discharge Elimination System (NPDES) programs on the federal, state, and county levels.

H. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		Professional Services	Construction (if applicable)
1.	Environmental Program Development, Phoenix, Arizona	2014	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Arizona Department of Transportation.</i> Chief Administrative and Executive Environmental Officer for the agency (Environmental Services Director). Establishment of the Arizona Department of Transportation's (ADOT's) environmental office. Responsible for developing the agency environmental program, directing the implementation of environmental best practices, coordination of environmental enforcement actions, promoting and fostering environmental stewardship. Hired multiple staff and established new annual resources totaling \$2,500,000 - \$4,000,000 annual budget.	<input type="checkbox"/>	Check if project performed with current firm
2.	Stormwater Permit Negotiation/Consent Order Implementation, Phoenix, Arizona	2014	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Arizona Department of Transportation.</i> Stormwater technical expert and as the Environmental Services Director for ADOT managing staff. Negotiation with ADEQ on the renewal of ADOT's National Pollutant Discharge Elimination System/Arizona Pollutant Discharge Elimination System permit (2X) after needing to respond to separate consent orders and the implementation of a 2013 Administrative Order on Consent with the Environmental Protection Agency. Implementation of consent orders significantly advanced the progress made by ADOT on a number of issues.	<input type="checkbox"/>	Check if project performed with current firm
3.	Facility Pollution Prevention Plan Development at ADOT Facilities Statewide, Phoenix, Arizona	2011	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Arizona Department of Transportation.</i> Stormwater technical expert and as the Environmental Services Director for ADOT managing staff. Development of site specific manuals to promote Best Management Practices and to comply with ADOT's Arizona Pollutant Discharge Elimination System permit and the Spill Prevention Control and Countermeasure regulations at 90+ ADOT facilities statewide.	<input type="checkbox"/>	Check if project performed with current firm
4.	Regional Stormwater Quality Monitoring Program, Maricopa County, Phoenix, Arizona	n/a	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Flood Control District of Maricopa County.</i> Water Quality Program Manager. Monitoring for the Cities of Phoenix, Glendale, Scottsdale and Mesa to meet their permitting requirements under the federal National Pollutant Discharge Elimination System. Regional resource to assist municipalities in meeting their stormwater permitting requirements.	<input type="checkbox"/>	Check if project performed with current firm
5.	Drainage Design Manual for Maricopa County, Arizona – Erosion Control Flood Control District of Maricopa County, Phoenix, Arizona	2004	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <i>Flood Control District of Maricopa County.</i> Project Manager. The manual provides guidance to agencies, municipalities, developers, property owners, engineers and contractors involved with construction to comply with the AZPDES/NPDES stormwater permitting requirements for construction activities. 292 page document.	<input type="checkbox"/>	Check if project performed with current firm



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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> Tempe Fire Training Center Drainage Improvements, Tempe, Arizona	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(If applicable)</i>

23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER City of Tempe	d. ORIGINAL BUDGET/NTE AMOUNT OF PROJECT \$55,301 (Fee)	e. TOTAL COST OF PROJECT \$211,193 (Construction)
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

Baker provided architecture, civil design, and limited construction phase services to provide a drainage solution for the Fire Department Point-of-Presence (POP) facility to prevent the building from flooding and impacting mission critical fire and police communication equipment.

A storm in January 2010 overtopped the southeast retention basin, which had been modified by the construction of a new tower and communication building. The height of the water inundated the parking lot and approached the bottom of the communication building's entry doors. An evaluation of the basin outlet elevation and the communication building finish floor elevation revealed that the communication building was constructed in a localized low spot.

Options considered included providing an outfall, raising the building floor elevation, installing a storm drain, constructing a floodwall, and increasing the retention basin capacity. The recommended solution was to construct a vestibule in front of the existing doorways to provide an access point higher than the water outfall elevation. The vestibule and building lower block courses were flood proofed to protect against water seeping into the building. Additionally, a storm drain connection was made to provide an outflow for the retention basin.

Baker examined the topography, survey information, and the city storm drain GIS database to evaluate the existing drainage area impacting the southeast and northwest retention basins. Baker determined the basins' outfall elevations, investigated alternatives, and provided conceptual designs for the recommended solution. Baker designed the vestibule addition along the west side of the existing building to provide building entry at a level above the 100-year floodplain, afford access during and after a major flood event, and protect sensitive telecommunications and power equipment. Baker prepared construction plans for the proposed civil site improvements and developed an opinion of probable costs. Baker also provided mechanical design for relief louver assemblies at the new vestibule and incidental electrical design for relocation of security cameras, exterior wall-pak lighting fixtures, interior lighting, and door alarm contacts.



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

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a. TITLE AND LOCATION (City and State) Logo Sign Placement in Urban Areas – Phase 2; Section 2 – S.R. 202L Red Mountain, Tempe and Mesa, Arizona	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION (If applicable)

23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER ADOT/Grand Canyon State Logo Signs	d. ORIGINAL BUDGET/NTE AMOUNT OF PROJECT \$112,875 (Fee)	e. TOTAL COST OF PROJECT \$112,875 (Fee)
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

The Grand Canyon State Logo Signs (GCSLS) – A Program of the Arizona Department of Transportation (ADOT), procured and continues to procure design consultants through the ADOA Annual Request for Qualifications to work on Logo Sign Placements in Urban Areas. The purpose of the Logo Sign Placement project was to identify suitable locations in compliance with MUTCD and ADOT traffic engineering standards for the installation of Specific Service Signs along Urban Freeway segments in the Phoenix Metropolitan area.

Baker provided design services for the section of the S.R. 202L from 24th Street to Broadway Road (15 exits in total). Specific tasks included identifying suitable locations for the installation of specific service (logo) signs along the corridor. Baker obtained MicroStation files from multiple consultants through permission from ADOT. After several field reviews verifying base files and as-builts, Baker prepared roll plots depicting the location of new logo signs and identified existing signs that required relocation. Baker maximized the allowable number of logo signs at each exit. At locations where existing non-logo signs prohibited the placement of a new logo sign, Baker evaluated and recommended alternative locations for mandatory overhead guide signs in order to place new logo signs. At one of the Traffic Interchanges, additional design needed to be completed to accommodate many of the exiting overhead guide signs.

Baker has successfully completed and submitted final PS&E documents to ADOT and GCSLS.



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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> Meridian Road Corridor Study, Apache Junction, Arizona	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(If applicable)</i>

23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER Arizona Department of Transportation MPD	d. ORIGINAL BUDGET/NTE AMOUNT OF PROJECT \$180,000	e. TOTAL COST OF PROJECT \$180,000
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

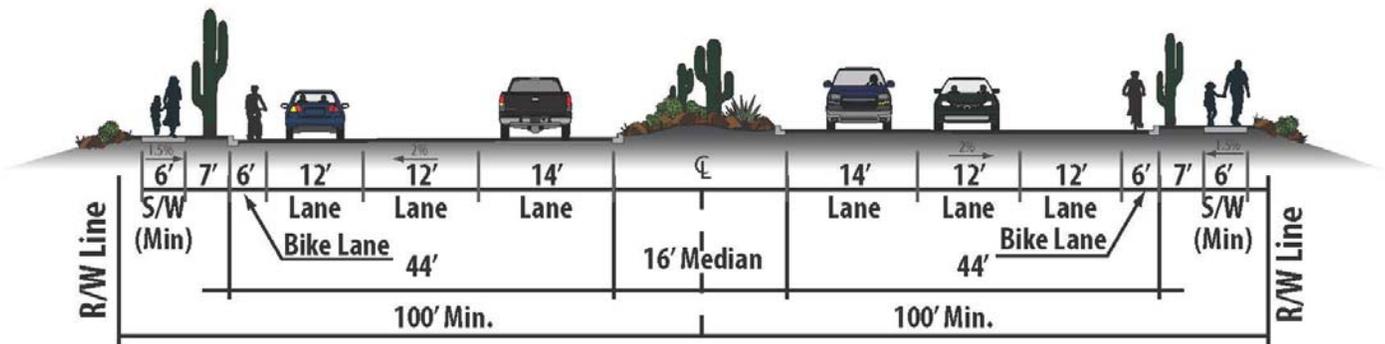
The Meridian Road Corridor Study was a planning study in ADOT's Planning Assistance for Rural Areas (PARA) program. The Study applicant was Pinal County on behalf of the City of Apache Junction. Meridian Road is a section line road that lies on the boundary between Maricopa County and Pinal County in Central Arizona. The study corridor extends nearly 13 miles from Germann Road on the south to McDowell Blvd on the north. It is a discontinuous road that varies from alignment only in the undeveloped desert to a major arterial in Apache Junction.

Baker coordinated the interests of the various partners and stakeholders in the Corridor. The City of Apache Junction lies in Pinal County east of and adjacent to Meridian Road. The City of Mesa lies in Maricopa County west of and adjacent to Meridian Road. Unincorporated lands also about Meridian Road in Maricopa and Pinal Counties. Other major stakeholders include the Arizona State Land Department (ASLD), the Flood Control District of Maricopa County (FCDMC) and the Town of Queen Creek (TOQC). ASLD has major land holdings in Pinal County known as Superstition Vistas adjacent to Meridian Road. FCDMC manages several flood control facilities that transverse and run parallel to Meridian Road. The TOQC lies immediately south of the study area.

Meridian is included in long range transportation plans in each of the local jurisdictions, the Maricopa Association of Governments Regional Transportation Plan and the Central Arizona Governments long range plan. Maricopa County had conducted a corridor study for the southern half of the corridor in mid-2000's. The primary goals of the study were to:

- Agree on a functional classification
- Agree on an alignment
- Agree on the Right-of-Way to preserve

Baker successfully led the study effort compiling data from the various existing studies and updating that data where necessary. The study satisfied the primary goals as well as identifying safety issues and resolutions and recommending a phasing plan based on future capacity driven needs. Baker was also one of the first to apply ADOT's new Planning and Environmental Linkages (PEL) process resulting in sign-offs from the ADOT State Engineer and the FHWA Arizona Division Administrator. Baker also prepared a sample Memorandum of Understanding (MOU) that the agencies could use to establish how they would work together to implement the Corridor Study and manage the corridor development.





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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> US 60 Grand Avenue Intersection Improvements at 43rd Avenue and 51st Avenue, Phoenix and Glendale, Arizona	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2008	CONSTRUCTION <i>(If applicable)</i>

23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER Arizona Department of Transportation	d. ORIGINAL BUDGET/NTE AMOUNT OF PROJECT \$2,528,592 (Fee)	e. TOTAL COST OF PROJECT \$2,528,592 (Fee)
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

Grand Avenue (US 60), is aligned diagonally from downtown Phoenix to the northwest area of the Phoenix Metropolitan Area. Originally designed more than 70 years ago to serve outlying farming communities, it is now an urban regional and local surface street transportation corridor that serves residential, retail, commercial and industrial interests.

Grand Avenue and the parallel Burlington Northern Santa Fe (BNSF) Railroad diagonally cross a grid network of arterial streets forming several six-legged intersections and at-grade railroad crossings. These intersections and railroad crossings are the cause of limited traffic capacity within the corridor, excessive traffic congestion, long commuter delays and impediments to non-motorized and transit use within the corridor.

Working with the Arizona Department of Transportation, Baker designed the intersection improvements and developed construction documents on two intersections of the eight locations in the corridor designated for reconstruction.

- Avenue / Camelback Road
- Avenue / Bethany Home Road

Each intersection improved complex vehicular movements, reduced or removed BNSF railroad conflicts and converted the six-legged intersections to four-legged intersections. Construction was sequenced so that local streets could remain open during construction.

Extensive negotiations were conducted on ADOT's behalf with the Cities of Glendale and Phoenix to resolve right of way, traffic circulation, aesthetics / artist participation, drainage, and intergovernmental coordination issues. Except for US 60 Grand Avenue, each intersection will ultimately be turned over to local government jurisdiction.

The **Grand Avenue and Camelback Road** intersection was reconfigured to carry Grand Avenue traffic over the intersection with the new Grand Avenue offset to the east. All design and utility permitting activities were **completed within an aggressive 12-month schedule**. Issues resolved with the Cities of Phoenix and Glendale included a major right-of-way acquisition, artist involvement, street access and drainage issues. The project provided:

- An eastbound, 4-span, 53-foot wide by 500-foot long precast girder bridge
- A westbound, 5-span, 53-foot wide by 600-foot long precast girder bridge
- Avenue street connector concrete frame overpass structure
- New ramps and traffic signals
- Retaining walls
- Artist enhancements
- Three drainage basins totaling 18 acres
- Signing and striping
- Utility relocations that involved Salt River Project (SRP) Irrigation and Power (12kV and 69kV lines), Southwest Gas, and Cox Communications.

The **Grand Avenue and Bethany Home Road** intersection was reconfigured to carry 51 Avenue over a four-legged Grand Avenue / Bethany Home Road intersection and the BNSF railroad. The new 51 Avenue bridge was offset to the west of the existing intersection to shorten the bridge spans and to minimize street closures. The bridge was a 2-span; 70-foot wide by 360-foot long precast girder substructure with a spliced precast girder superstructure.

Working with ADOT, successful discussions with SRP Irrigation yielded a maintenance agreement with the City of Glendale that enabled SRP to relocate their 51 Avenue system. This minimized project costs and conflicts with other facilities, and resulted in **project savings of over \$1 million**. Baker also worked with ADOT Utilities & Railroad and BNSF Railroad to assure that signal conflicts were eliminated and to determine the railroad's 5% contribution toward elimination of an at-grade crossing. Design issues addressed were:

- Five-lane roadway cross-section on the bridge
- Local traffic circulation
- Location of bicycle lanes
- Air and noise impacts
- Elimination of sidewalks from the bridge
- Six drainage basins totaling 6 acres were designed to address drainage issues resulting from construction of the overpass embankment
- Utility coordination included SRP Irrigation and Power (12kV), Arizona Public Service (230kV and 12kV), Southwest Gas, Qwest, MCI Worldcom, Electric Lightwave and Cox Communications.

An Environmental Assessment was also conducted.





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

a. TITLE AND LOCATION <i>(City and State)</i> Rio de Flag Flood Control and Design Concept Report, Flagstaff, Arizona	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(If applicable)</i>

23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER City of Flagstaff, Arizona	d. ORIGINAL BUDGET/NTE AMOUNT OF PROJECT \$241,488 (Fee)	e. TOTAL COST OF PROJECT \$241,488 (Fee)
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

Baker prepared a Design Concept Report for the City of Flagstaff, incorporating multiple alternatives and a preferred alternative for 100-year flood control facilities for two miles of Rio de Flag and one mile of Clay Avenue Wash through densely populated downtown Flagstaff. The goal of the project was to reduce costs associated with the project by value engineering and through the use of FEMA 100-year discharge rates as an alternative to discharge rates previously calculated for the project. Baker worked with Hunter Contracting to develop construction costs and sequencing, and to value engineer the preferred design to ensure the client realizes the greatest efficiencies. In addition, Baker completed existing conditions floodplain modeling and mapping so that the project can be submitted to FEMA as a CLOMR prior to construction.



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6. ADDITIONAL INFORMATION

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

Nearly 75 years ago, a young engineer envisioned a world in which life doesn't stop at the banks of a river and dreams aren't limited by distance and time; a world in which people can travel great distances quickly and effortlessly, and then find safe havens in which to live and work when they arrive at their destinations. He envisioned a world in which bridges pay tribute to the majesty of the rivers they span, and the highways that ribbon the countryside are monuments to human ingenuity that last for generations.

From that vision evolved a full-service planning, architectural, engineering, and construction management firm dedicated to creating innovative and environmentally responsible infrastructure solutions throughout the United States and internationally.

Michael Baker Jr., Inc. (Baker), a Michael Baker International Company, founded in 1940, serves public agencies and private industry from more than 90 offices in the United States and nine internationally. With more than 5,000 employees worldwide, Baker provides a broad array of services to address the complete life cycle of facilities and infrastructure in 11 primary markets:

- Architecture
- Aviation
- Environmental
- Geospatial
- Municipal and civil
- Transportation
- Defense
- Facilities
- Homeland security
- Pipelines and utilities
- Water

Baker provides services to local, state, and national agencies throughout the United States and all over the world. *Engineering News-Record* (ENR) magazine consistently ranks Baker in the top 10 percent of the 500 largest U.S. engineering design firms (currently 26th).

Phoenix office overview

Baker has a history of specializing in complex and demanding projects for the public and private sector, and established a full-service, multi-disciplined, regional branch office in Phoenix in 1986. Baker's current Phoenix office is a 90-person resident staff that prides itself with the long tenures of its people, and has performed numerous task orders for federal, state, and municipal clients, such as Arizona Department of Transportation, Flood Control District of Maricopa County, Pinal County, City of Phoenix, City of Peoria, City of Glendale, U.S. Department of Homeland Security, and U.S. Army Corp of Engineers.

Innovative solutions to infrastructure problems.

Our fast-paced world demands that we get things done quickly and accurately, that we travel great distances within short spans of time. In response, the public demands that both government and private industry provide the infrastructure that gets us where we need to go safely, quickly, and almost effortlessly, and accommodates us in comfort when we get there. Meeting today's infrastructure needs in the face of economic, political, geographical, and social obstacles requires innovation—the kind of innovative thinking that is at the foundation of Baker's consulting practice. Baker continuously develops new ideas, techniques, and technology to meet this challenge, and is frequently asked to teach these techniques to staff of public agencies at all levels of government.

A focus on sustainability.

Long before "sustainability" became part of the American vocabulary, before "green" became a verb, Baker's dedication to environmental responsibility permeated all aspects of its activities and continues to be at the forefront of Baker's consulting services today. Sustainability is usually synonymous with cost-effectiveness, and Baker recognizes the importance of protecting natural resources while delivering the highest quality possible for the lowest possible cost.

Many of Baker's architects and engineering professionals are Leadership in Energy and Environmental Design Accredited Professionals (LEED® AP). From site selection to design to construction, their goal is to develop energy-efficient facilities that will serve populations for generations to come. Whether designing bridges, highways, airports, transit stations, or military housing, this focus on sustainability drives Baker's delivery of services. It also lowers costs for clients—and the public—over the long term.

Architectural services.

The Baker Facilities group provides complete planning, architectural, engineering, and construction phase services that can be tailored to suit clients' diverse needs. We employ a team of highly skilled architects and engineers who specialize in the commercial, higher education, aviation, transit, and government sectors. This team environment encourages an exchange of ideas that adds value in both the design and building phases of a project, especially when it comes to resource allocation due to the demands of tight production schedules.

Baker excels at delivering complex and demanding projects in both the private and public sectors. And, we are meticulous when it comes to the details that can reduce budgets and improve schedules. Consequently, our construction management and program management services save our clients both time and money.

Throughout our history, we have developed an impressive list of new and renovation projects in the following markets:

Military and Government Facilities

- Company operations facilities
- Readiness centers
- Vehicle maintenance facilities
- Barracks and dormitories
- Family housing
- Research and development
- Industrial parks
- Correctional facilities
- Child development centers

Aviation

- Terminals and hangars
- Cargo and support buildings
- Ice wolf deicing system

Education

- Colleges and universities
- K-12
- Libraries and museums

Commercial

- Office parks and buildings
- Retail and recreation
- Hospitality and entertainment

Transit

- Parking structures
- Maintenance facilities
- Bus, rail, and train stations



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Recent architectural design projects include:

- **Pinal County Architectural On-Call Services, Pinal County, Arizona.** As part of an on-call services contract, Baker is providing architectural and planning services countywide on an as-needed basis. These services have included:
 - **Apache Junction Health Clinic**–Programming, conceptual design, and cost estimating for a new 10,000- to 12,000-square-foot public health clinic that will be considered a prototype for future clinics in Pinal County.
 - **Pinal County Warehouse**–Architecture, civil engineering, mechanical engineering, plumbing, and electrical engineering for a 6,000-square-foot metal building designed for the unloading of equipment and storage of traffic lights and signs. It also includes an office for the construction crew chief and staff, two conference rooms, restrooms, a break room, storage, and an IT/telecommunications room.
 - **Pinal County Mini Clinic and Library**–Baker is responsible for the site development and cost estimating for the 2,000-square-foot clinic and 1,000-square-foot library.
- **Advanced Individual Training (AIT) Barracks Complex, Ft. Huachuca, Sierra Vista, Arizona, USACE- Ft. Huachuca Project Office.** Baker is serving as the Designer of Record, providing architectural and structural design, and civil engineering for four three-story, wood-framed barracks buildings (93,000 square feet each) and approximately 36 acres of site design.
- **George W. Carver Museum and Cultural Center, City of Phoenix, Arizona.** The Baker team was recently selected to provide design-build services for the design and construction of the phase II renovation of The George W. Carver Museum and Cultural Center, which was registered as a historic property by the City of Phoenix Historic Preservation Office.

Mechanical engineering services.

Baker's mechanical engineering experts are highly skilled in the design of mechanical systems for aviation, highway, transit and rail, and facilities. Typical mechanical engineering services include:

- | | | |
|--|---|-------------------|
| • HVAC systems | • Highway toll collection systems | • Retaining walls |
| • Direct digital control (DDC) systems | • Locks, dams, and levees | • Rail tracks |
| • Baggage handling systems | • Plumbing, fire protection, and security systems | |
| • Pipelines | | |

Electrical engineering services.

Baker's facilities design team also provides electrical engineering services for new or renovated buildings. Baker has designed facilities for hundreds of private, public, and military clients.

Highway projects often require electrical engineering services for utility relocation. Recent projects for which Baker has provided these services include:

- Tuba City, Arizona, Lighting Project, *Arizona Department of Transportation*
- Route 17 UFI, *Virginia Department of Transportation*
- Midland Avenue Streetscape Improvements, *Midland, Pennsylvania*

Civil engineering services.

Baker's civil engineering services include surveying, planning, mapping, GIS, and engineering design services for a wide variety of projects, including fiber-optic cable routes, hydroelectric development, dams and impoundments, marine facilities, airports and highways, and recreational facilities. The group has the ability to take a project from the earliest phases of planning, through engineering to the preparation of plans and specifications, and into construction, in which resident engineering and inspection services are provided if required by the client. Typical assignments include:

- | | |
|---|---|
| • Facilities planning | • Municipal water and wastewater treatment |
| • Environmental evaluations and assessments | • Geotechnical engineering for highway, disposal, and site development projects, including planning and oversight of subsurface investigations and subsequent foundation design |
| • Land use and natural resources planning | • Construction management |
| • Groundwater assessment | • Emergency/Security Management for Public Infrastructure |
| • Site development | |
| • Disposal site design and permitting, including residual waste disposal facilities | |

Recent highway and civil engineering projects for the Arizona Department of Transportation include:

- S.R. 86, Valencia Road to Kinney Road (Completed 2014, \$4,200,000 costs)
- S.R. 89A Viewpoint Drive PDS (Completed 2013, \$112,543 costs)
- Various District Minor On-Call Task Orders (Estimated Completion 2014, \$192,592 costs)
- S.R. 101L HOV Lane DCR and Final Design (Completed 2012, \$1,062,346 costs)
- S.R. 303L Glendale to Peoria Project (Completed 2013, \$7,587,725 costs)
- S.R. 303L Lake Pleasant Parkway to I-17 (Completed 2013, \$11,255,500 costs)
- Douglas Strategic Weigh and Inspection Station - (Completed 2008, \$86,625 costs)
- S.R. 89 - Dry Creek to Sedona Highway Design,(Completed 2009, \$1,094,874 costs)
- U.S. 60 Grand Avenue Intersection Improvements at 43rd Avenue and 51st Avenue - (Completed 2008, \$2,528,591 costs)
- Benson-Stein Pass Highway, San Simon Port of Entry - (Completed 2006, \$26,360 costs)
- San Luis Port of Entry Weigh Scale and Site Improvements - (Completed 2006, \$23,750 costs)
- 202L Santan Freeway (Power Road to Elliott Road) Final Design - (Completed 2004, \$3,289,635 costs)

Steam Generator Replacement Project, Puerto Penasco, Mexico to Phoenix, Arizona. *Arizona Public Service Company.* Baker performed roadway improvements for over 200 miles of two-lane highway in Arizona and New Mexico, including a 13-mile private road. Baker also provided highway design, bridge structure and shoring design, culvert protection and remediation design, bridge inspection, dock design, environmental investigations and permitting, time and motion studies, traffic engineering, utility coordination, railroad permitting, coordination with private landowners, engineering and permitting, and construction management services for this project. The road improvements were done to support the transportation of six 1,000-ton vessels to Palo Verde Nuclear Generating Station.

Border Barrier System, Laredo, Texas. *U.S. Army Corps of Engineers, Fort Worth District.* N/A. N/A DHS created a multi discipline team of USBP agents, engineers, planners, military construction specialists, environmental specialists, and archaeologists to identify, prioritize, plan and execute projects that would assist the USBP in their mission to control illegal immigration into the US as well as the detection and apprehension of illegal drug traffickers between the ports-of-entries. These individuals comprised the Laredo Sector Project Delivery Team (PDT) with Baker as the Engineer. Under this contract Baker developed fencing, all weather roads, bridges, lighting and other infrastructure projects to assist the USBP. This project was a task order under the Nationwide A-E IDIQ Contract for the USACE - Ft. Worth District. (Completed 2008, \$670,857 costs)



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ADOT Facilities Security Assessment. *Arizona Department of Transportation.* At the heart of a DOT's Homeland Security Program is the physical security of its facilities, both facilities for transportation service and for internal department operations. The terrorist attacks of 9/11 and subsequent threats to the nation's transportation systems serve to remind transportation agencies of the vulnerability of their critical infrastructure. In addition to attacks directly against their own facilities, transportation agencies and their systems could be affected by terrorist attacks against other targets, as was dramatically demonstrated in New York. DOT transportation systems are essential for responding to any disaster.

Baker developed a needs study and strategy for physical security within ADOT by performing the following:

Met with ADOT executives and staff to determine the basic parameters for physical security, using the AASHTO guidance as a foundation; such parameters included hazards and types of facilities to be addressed, levels of protection, and performance metrics for the plans Conducted a limited review of physical protection strategies and schemes implemented by other DOTs Conducted a limited assessment and prioritization of ADOT's critical facilities/nodes, particularly identifying choke points in system Identified and assessed critical internal ADOT facilities, such as the headquarters buildings, Traffic Operations Center, and field offices Reviewed and assessed existing VA and security analyses, both within ADOT and through the Department of Public Safety and ADEM Examined potential vulnerability assessment methodologies and provided recommendations to ADOT staff; these VA methodologies included the AASHTO methodology and several risk assessment methodologies developed by Sandia National Laboratories; Baker is licensed in the application of these Sandia methodologies Reviewed existing plans for physical security investments

Department of Homeland Security Various Infrastructure Improvement Projects, Various Locations. *U.S. Army Corps of Engineers, Fort Worth District, Various Locations.* Baker provided a variety of engineering, water resources and construction services for infrastructure improvements along the U.S.-Mexico border for the U.S. Department of Homeland Security:

Construction Oversight and Staking, Douglas, Arizona

Baker provided construction oversight services to the U.S. Department of Homeland Security, Bureau of Customs and Border Protection, Office of Border Patrol, Tucson sector, for roadway projects in Douglas, Arizona. Tasks performed by Baker include reviewing earthwork operations, monitoring construction staking, inspecting steel reinforcements, monitoring concrete testing, documenting material quantities, overseeing drainage ditch and structure construction, and observing and documenting installation of the stormwater pollution prevention system.

Naco West Lighting Construction Support, Tucson, Arizona

Baker was responsible for constructing approximately one mile of new lights west of the Naco point of entry along the U.S./Mexico border.

Project Delivery Team Meetings, Tucson, Arizona

Baker attended the Tucson Sector Border Infrastructure Project Delivery Team meetings to provide assistance in planning and programming on-going and future projects to ensure compliance with engineering standards.

Tucson Sector Border Patrol Road Design, Sonoita, Arizona

Baker provided the final engineering plans for an upgraded border patrol road through U.S. Forest Service property. This design plan of 4.4 miles of roadway also included geotechnical, hydrologic/drainage, and structural designs. Baker also coordinated with the U.S. Forest Service for work on this project.

Tucson Sector Construction Oversight, Naco, Arizona

Baker performed construction oversight and staking for six miles of proposed roadway for the Department of Homeland Security and the Bureau of Customs and Border Protection.

Tucson Sector Roadway Design, Nogales, Arizona

Baker performed the final design of two additional miles of roadway west of the Point of Entry (POE) for the Department of Homeland Security and the Bureau of Customs and Border Protection. Baker's plans and specifications for the project also included numerous drainage crossings and the need for primary fencing.

Other recent civil engineering projects include:

- Douglas International Ditch, Tucson Sector, Douglas, Arizona - *(Completed 2007, \$2,423,195 costs)*
- I-19 Continental Road Civil Design, Green Valley, Arizona - *(Completed 2008, \$35,824 costs)*
- Civil and Site Design for the Tempe Transportation Center, Tempe, Arizona - *(Completed 2008, \$98,507 costs)*
- Cotton Lane Bridge, MC85 to Estrella Parkway, Goodyear, Arizona - *(Completed 2008, \$3,483,884 costs)*
- Glendale Water System Vulnerability Assessment, Glendale, Arizona - *(Completed 2004, \$178,811 costs)*

Structural engineering services.

Structural engineering has been the hallmark of Baker's expertise since the company was founded in 1940. Throughout its history, Baker has undertaken some of the world's most complex and difficult bridge engineering projects. Services range from the design of small box culverts and retaining walls to major complex river crossings. These include steel plate girder bridges, trusses, cablestayed bridges, arch spans, and concrete segmental spans. Rating analysis and rehabilitation design encompassing diverse bridge types has also been a primary service offered by Baker's Bridge Department. Services include attention to rehabilitation measures or retrofit of fatigue-prone details, elimination of joints where possible, creation of continuous spans, and seismic retrofit considerations.

Baker literally "wrote the book" on bridge inspection, having authored the Federal Highway Administration's *Bridge Inspectors' Reference Manual (BIRM)*. Baker also developed National Highway Institute Course No. 130055, "Safety Inspection of Inservice Bridges," and has crossed the country teaching the course to thousands of bridge inspectors. The firm is also one of the largest and longest-standing software development groups in the bridge consulting community. Baker has been a leading provider of bridge design, analysis, and rating software for more than 20 years, having developed software in support of the implementation of load and resistance factor design (LRFD) bridge specifications, and AASHTO BRIDGEWare®, the suite of bridge design, load rating, and management software.

However, Baker's structural engineering expertise is not limited to bridges; the firm also provides structural design, inspection, and rehabilitation services for roads, retaining structures and walls, tunnels, dams, foundations, railways, and pipelines.

Recent structural engineering projects within the State of Arizona include:

- Roadway and Bridge Modifications, Arizona Public Service Company, Southern Arizona and Sonora, Mexico
- San Diego Sector Primary Fence, US Army Corp of Engineers – Fort Worth District, San Diego, CA
- Douglas International Ditch, Tucson Sector, US Army Corp of Engineers – Fort Worth District, Southern Arizona, AZ



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Surveying

Baker is a leader in the survey industry, using the most current technology and providing clients with innovative solutions. Survey crews are equipped with total stations interfaced with data collectors, and perform high-accuracy GPS surveys using dual-frequency receivers with kinematic capability. Baker's survey crews also collect feature positions, to sub-meter accuracy, and feature attributes using Pathfinder GPS receivers.

Baker has provided photogrammetric mapping services for over 45 years. The firm has complete in-house aerial photo reproduction services. Digital topographic mapping is performed on first-order analytical stereoplotters interfaced to graphic workstations. Digital orthophotos are produced using our Intergraph/Zeiss high-resolution photo scanner and Intergraph ImageStations running Imager software. Digital topographic map files and digital orthophoto files are delivered in a variety of formats compatible with the customer's hardware/software platform of choice. Baker personnel have extensive training from Intergraph in various hardware and software application packages, in addition to experience with system management, programming, Oracle/Informix/dBase databases, Microstation 5.0, and InRoads.

Baker has provided surveying and mapping services for many thousands of miles of corridor projects serving the highway, rail transportation, pipeline, telecommunications, and power industries. Topography ranges from urban inner-city areas to isolated and rugged terrain through mountains and across plains. Baker's full spectrum of surveying services include design alignment staking, construction staking, boundary, right-of-way, easement, condemnation, land title, subsidence monitoring, hazardous material sites, topographic data collection, photogrammetric mapping control, and magnetic location/tracing surveys.

Mapping services include aerial photography, photo enlargements, control extension by analytical aerotriangulation, digital terrain modeling (DTM), profiling and cross sectioning by digitizing or extraction from DTM, digital planimetric and topographic mapping, and color and black-and-white digital orthophotography.

At the end of 2008, Baker completed an IDIQ contract for the USACE Louisville District that involved leading U.S. Department of Homeland Security (DHS) project delivery teams for the Laredo, Del Rio, San Diego, and Tucson sectors, providing a complete range of mapping, general civil engineering, architectural, GIS, risk management and force protection, and construction management services. As part of this contract, Baker developed 132 miles of aerial mapping and survey along the U.S.-Mexico border that provided 50-foot scale mapping, aerial photos, and color orthophotos that were used as as-builts. A notebook containing 26 CDs of TIFF images, TIFF world files, and MicroStation aerial reference frames, and seven pages of instructions and station references were also provided. This was used as base mapping for design work.

Other recent surveying and mapping projects include:

- Nationwide ID/IQ for Immigration and Naturalization Service (INS), 2005-2008
- Design-Build Construction of Primary Fence at U.S./Mexican Border in Tempe and Sasabe, Arizona

Construction management and construction administration services.

Baker provides construction management and construction administration services for transportation, infrastructure, and utility projects. Baker's clients include private companies, as well as federal, state, and local government agencies. Projects range in size and complexity, and include new or rehabilitation construction, traditional design-bid-construct, and design-build project delivery. Baker's construction experience includes highways, bridge structures, infrastructure rehabilitation, freight and passenger railroads, transit facilities, airports, and utilities.

Baker is very familiar with standard practices of highway and bridge construction for major arteries, as well as local roadway systems. Baker's construction management and construction inspection staff has exceptional experience, certifications, and credentials supported by proven performance. Baker has a current staff of over 200 construction-oriented personnel in its Transportation Construction Management (CM) Services Group. It is from this experienced staff that teams are generated to orchestrate the services required to administer successful construction projects ranging from \$2 million to \$1 billion in program value.

Baker provided design, post-design, and construction management services for the **Douglas International Ditch** project, in Douglas, Arizona, adjacent to the international boundary with Agua Prieta, Sonora, Mexico. The completed project will provide easier access for the U.S. Border Patrol to the channel and culvert system to apprehend illegal aliens, interdict narcotics, and prevent further erosion and damage to the adjacent roadway and border fence. The project was constructed by utilizing both Joint Task Force North deployment labor and private commercial contractors. Baker provided channel and access road design, low water crossing design, boundary survey, hydrology and hydraulic analysis, geologic and soil investigation, foundation designs and various options analysis, construction management, construction survey support, and material testing and inspection.

Project estimating services.

Cost estimating for engineering and architectural projects is a complex process that goes beyond determining labor, equipment, and materials costs. Costs for permits, utility connections, and other "incidental" fees can be enough to put projects over budget or reduce cost-effectiveness. Baker's construction management group supports the designers by providing quantity survey takeoffs and cost estimates for projects.

Baker's staff has a number of estimating resources available—including affiliations with contractors and contractor associations. The staff is very familiar with contracting methods and specifications used by local, state, and federal agencies and can provide cost estimating at any stage of the design and construction process. Baker has broad experience in conducting economic analyses using the Programming Administration and Execution System (PAX) 1391 module, including ECONPAK, and developing cost estimates using USACE cost estimating software packages, such as MCACES, PC-Cost, and the Parametric Cost Estimating System (PACES). Baker's staff also has the ability to convert data from one software format to another, providing more detailed and accurate cost estimating.

The following recent Baker projects included cost estimating services:

- S.R.80, Fremont Street Project Assessment, Tombstone, Arizona, *Arizona Department of Transportation*
- The Nationwide IDIQ for A-E Services in support of DHS, *USACE, Fort Worth District*
- Douglas International Ditch, Tucson Sector, *USACE, Fort Worth District*
- The Tuba City Lighting Project, *Arizona Department of Transportation*
- GAP Design Concept Report, Phoenix, Arizona, *USACE, Fort Worth District*
- ID/IQ-Immigration and Naturalization Service (INS), *USACE, Fort Worth District*

Project scheduling.

Scheduling and duration are of critical importance in the development of cost-effective projects. Baker has repeatedly demonstrated the ability to successfully meet fast-track schedules and to coordinate construction schedules to minimize or eliminate usage disruptions.



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Baker is experienced in the use of scheduling software, such as Primavera Project Planner, Microsoft Project, and Timeline, and other scheduling tools. In addition, Baker's staff reviews and monitors the contractor's schedule for and during construction. Baker's schedulers have the knowledge and foresight to look deep into underlying schedule logic and identify problems early—preventing claims.

Constructibility reviews.

Constructibility reviews verify that designs meet project objectives. Virtually every architectural and engineering design developed at Baker undergoes a constructibility review by Baker's seasoned construction management team. Baker's construction managers, inspectors, and testing experts know how both designers and construction contractors think, and are experienced in providing in-depth review comments, solutions, and alternatives at any phase of a project.

Constructibility reviews analyze design documents for:

- Appropriateness of selected materials, processes, equipment, and labor
- Conformance to the program, aesthetics, and function
- Completeness of documents
- Accuracy, clarity, and coordination among disciplines
- Coordination for multiple bid packages
- Site access, logistics, and storage
- Accuracy and completeness in representing existing conditions
- Compatibility and viability of selected building systems
- Opportunities for phasing of construction contracts
- Assessment of risk
- Sustainability

Value engineering.

Baker's project managers and construction managers subscribe to value engineering principles that ensure that the client receives the best possible value with every project. Value engineering is a systematic method to improve the value of project services and deliverables by optimizing performance and reducing costs. It is a logical, structured approach that emphasizes function and purpose, information gathering, analyzing alternatives, and presenting the widest range of feasible options to the client.

For example, Baker assisted in a value engineering proposal for a utility bridge in Sandy, Utah. Part of the proposal involved relocating and redesigning a utility support structure. The structure was changed from a single-span structure composed of two prestressed girders supporting three steel casing pipes carrying water and sewer lines to a "space girder" structure made from three steel casing pipes welded together with web plates to form a triangular-shaped structure (two 36-inch pipes on the bottom corners and one 24-inch pipe on the top). The final structure span is 100 feet and crosses over a local park. Aesthetics was a concern, and it was determined the new structure would be less intrusive than the original design. A utility structure was also constructed.

Environmental impact statements and environmental assessments.

Baker has extensive experience in providing environmental services under the requirements of the National Environmental Policy Act (NEPA) to meet project needs for its diverse group of clients in both the public and private sectors. Baker maintains a highly qualified team of environmental scientists, engineers, planners, geologists, and cultural resource specialists who can successfully work anywhere in the nation to perform environmental investigations, impact assessments, and permitting. Baker's experience includes coordination with a complex array of agencies and the ability to conduct the range of impact analyses, from socioeconomic to the natural and cultural environments.

NEPA services include:

- Environmental permitting
- Cultural resources
- Wetlands
- Threatened and endangered species
- Habitat evaluation
- Farmlands
- Air and noise
- Socioeconomic overview

On-Call Landscape Architecture, Statewide, Arizona. Arizona Department of Transportation.

Responsibilities included scheduling, budget management, quality control, and project manager through the process of completing corridor management plans for ADOT historic routes. Reviewed and provided editorial comments reports prepared by subconsultants. Baker performed an ADOT On-call Statewide Landscape Architecture contract where projects were categorized as either Scenic Byway Corridor Management Plans (CMP) or Landscape Enhancement Plans. Twenty-one task orders were issued under this contract.

On-Call Environmental Investigations, Statewide, Arizona. Arizona Department of Transportation.

Baker provided scheduling, budget management, quality control and business development, as well as managing the cultural resource clearance including all contacts with clients regarding cultural resource issues and the Section 106 process. Prepared and maintained all company permits and permissions from Arizona's land management agencies and repositories, and she managed the acquisition of cultural resource clearance through the Section 106 process for all National Environmental Policy Act and Clean Water Act clearance documents, reviewed and provided editorial comments reports prepared by subconsultants. Also responsible for providing guidance, expertise and services to the ADOT Historic Preservation Team for the improvement of their program. These services included the creation and maintenance of forms, databases and procedures. The majority assistance has been through the preparation of a procedure and policy handbook for the Historic Preservation Team and the development of a web-based project management Portal. The Portal uses data storage and retrieval associated with geographic information systems to capture and reflect the projects, tasks, and consultations conducted by the Historic Preservation Team. Supervised field crew in survey of project area, identification and recording of cultural features and artifacts. Completed and submitted final reports. Baker provided on-call environmental planning services for department of transportation design projects under a one-year contract. Services included preparation of categorical exclusions, biological assessments, Section 404 permits, cultural resources fieldwork reports and noise analyses.

Mariposa Free and Secure Trade (FAST) Lanes, Nogales, Arizona. Arizona Department of Transportation.

Baker provided engineering and environmental services for the addition of two weigh-in-motion truck lanes to S.R. 189 at the Mariposa Port of Entry on the United States/Mexico border, in Nogales, Arizona. Part of the Free and Secure Trade lanes project, the new lanes were designed to accommodate heavy loads while meeting the requirements for precision of the slow speed, weigh-in motion (SSWIM) scales. Baker's services include surveying, pavement design, drainage design, environmental permitting, NEPA document preparation, construction permitting, traffic engineering, and lighting, traffic signal, SSWIM, ITS, and communications design coordination.

Phase I Environmental Site Assessment, Libby Army Airfield, Fort Huachuca, Arizona. U.S. Customs and Border Protection. Archaeologist. Baker was responsible for the archaeological resources survey and the design of temporary hangars and administrative facilities for DHS CBP HQ Air and Marine Operations at Ft Huachuca, AZ.



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Other services.

In the context of architectural, engineering, environmental, and construction management services, Baker also provides the following specialized services:

- Master planning
- Feasibility studies
- Traffic studies and planning
- Historic renovation and preservation
- Security, detention security, and fire protection systems
- Right-of-way services
- Accessibility and ADA compliance
- Water and wastewater treatment services
- Air quality monitoring
- Forensic investigations, expert witness, and litigation support
- Traffic Design
- Traffic Modeling
- Safety Engineering

Realizing the vision.

No longer are our lives limited by geographical boundaries. Bridges that are engineering marvels span our rivers and lakes. Tunnels and highways allow us to cross mountain ranges that would have been impassible less than a century ago. Our dreams are no longer limited by distance and time...a trip across the country takes just a few hours and a trip to the other side of the world takes only a day. Through most of the last century, Baker has contributed to the development of the technology and infrastructure that makes all this possible. Baker will still be there, as a leader in innovative engineering technology, through the 21st century and beyond.

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:	81.95%
b.	Percentage of Total Work Attributable to Non-Government Work:	18.05%

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

Signature: Doug Plasencia

Date: 12/24/14

Name: Doug Plasencia

Title: Vice President