



September 11, 2020

SOLICITATION FOR COMPETITIVE BID



ARKANSAS
GIS OFFICE

BID SIGNATURE PAGE

Type or Print the following information.

PROSPECTIVE CONTRACTOR'S INFORMATION					
Company:	Michael Baker International, Inc.				
Address:	500 Grant Street, Suite 5400				
City:	Pittsburgh	State:	PA	Zip Code:	15219
Business Designation:	<input type="checkbox"/> Individual <input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Public Service Corp <input type="checkbox"/> Partnership <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Nonprofit				
Minority and Women-Owned Designation*:	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> American Indian <input type="checkbox"/> Service Disabled Veteran <input type="checkbox"/> African American <input type="checkbox"/> Hispanic American <input type="checkbox"/> Women-Owned <input type="checkbox"/> Asian American <input type="checkbox"/> Pacific Islander American				
AR Certification #: _____ * See <i>Minority and Women-Owned Business Policy</i>					

PROSPECTIVE CONTRACTOR CONTACT INFORMATION			
Provide contact information to be used for bid solicitation related matters.			
Contact Person:	Chris Friel, GISP	Title:	Director of Strategic Accounts
Phone:	727-410-8905	Alternate Phone:	813-466-6042
Email:	Chris.Friel@MBakerIntl.com		

CONFIRMATION OF REDACTED COPY
<input type="checkbox"/> YES, a redacted copy of submission documents is enclosed. <input checked="" type="checkbox"/> NO, a redacted copy of submission documents is <u>not</u> enclosed. I understand a full copy of non-redacted submission documents will be released if requested. <i>Note: If a redacted copy of the submission documents is not provided with Prospective Contractor's response packet, and neither box is checked, a copy of the non-redacted documents, with the exception of financial data (other than pricing), will be released in response to any request made under the Arkansas Freedom of Information Act (FOIA). See Bid Solicitation for additional information.</i>
ILLEGAL IMMIGRANT CONFIRMATION
By signing and submitting a response to this <i>Bid Solicitation</i> , a Prospective Contractor agrees and certifies that they do not employ or contract with illegal immigrants. If selected, the Prospective Contractor certifies that they will not employ or contract with illegal immigrants during the aggregate term of a contract.
ISRAEL BOYCOTT RESTRICTION CONFIRMATION
By checking the box below, a Prospective Contractor agrees and certifies that they do not boycott Israel, and if selected, will not boycott Israel during the aggregate term of the contract.
<input checked="" type="checkbox"/> Prospective Contractor does not and will not boycott Israel.

An official authorized to bind the Prospective Contractor to a resultant contract must sign below.

The signature below signifies agreement that any exception that conflicts with a Requirement of this *Bid Solicitation* will cause the Prospective Contractor's bid to be disqualified:

Authorized Signature:  Title: Associate Vice President
 Printed/Typed Name: Jason Bivens, ENP, NRP Date: 9/10/2020

OFFICIAL BID PRICE SHEET

ITEM	DESCRIPTION	QTY	UNIT OF MEASURE	UNIT PRICE	EXTENDED AMOUNT
1*	<u>REQUIRED:</u> (a) Assessment of the current state of NG9-1-1 applicable datasets for the State of Arkansas. (b) Report of findings and a set of future recommendations based on the assessment.	1	each	(a) \$34,744 (b) \$23,180	(a) \$34,744 (b) \$23,180

ITEM	DESCRIPTION	QTY	UNIT OF MEASURE	UNIT PRICE	EXTENDED AMOUNT
2**	<u>OPTIONAL:</u> Implementation plan outlining specific steps necessary for executing and/or achieving the future recommendations identified in the report of findings.	1	each	\$20,850	\$20,850

*Item 1 will be used to determine lowest cost.

**Item 2 will not be used to determine lowest cost.

Michael Baker International, Inc., a leading provider of engineering and consulting services, has been partnering with communities *since 1940* to solve their most complex infrastructure challenges with a legacy of expertise, experience, innovation and integrity. Supported by *more than 3,000 employees in nearly 100 locations* across the United States, we provide a full continuum of engineering and consulting services, including design, planning, architectural, environmental, construction and program management. Our clients include U.S. federal, state and municipal governments, foreign allied governments, and a wide range of commercial clients. Michael Baker is *committed to delivering a standard of excellence* that fosters a culture of innovation, collaboration and technological advancement to help solve our clients' complex challenges.



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DATAMARK, the public safety GIS team of Michael Baker, brings comprehensive, real-world expertise in police, fire, EMS and 9-1-1 leadership roles to Next Generation 9-1-1 transitions. The DATAMARK team leads the industry by shaping rules and legislation, and by building a suite of products and services that ensure accurate emergency response location data in life-critical situations. DATAMARK empowers its team and stakeholder partners to foster trusted relationships and cultivate data integrity for informed decision making. The team works with clients to solve their complex needs, from data quality checks and addressing to workflow analysis and more.

Benefits of partnering with DATAMARK include:

- ✓ A well-known, go-to NG9-1-1 authority
- ✓ An Esri Silver Partner focused on Public Safety, NG9-1-1, and overall GIS needs
- ✓ A consultant with a large team of knowledgeable and seasoned staff including former 9-1-1 directors, emergency services personnel, and GIS practitioners; all dedicated to public safety and NG9-1-1
- ✓ Experts in the fields of Public Safety and GIS with an extensive roster of certified Emergency Number Professionals (ENP), GIS Professional (GISP) and Project Management Professionals (PMP) including the President of the Geospatial Information Technology Association (GITA), as well as standards and best practices authoring working group chairs and participants at the National Emergency Number Association (NENA)
- ✓ A dedicated and proven project management team who has extensive experience in highly accurate reliable GIS necessary for public safety and NG9-1-1 and the quality management practices needed to support them

The DATAMARK team brings *decades of experience* working throughout the United States on GIS and 9-1-1 addressing and data maintenance solution related projects. This significant experience includes E9-1-1 and NG9-1-1 GIS gap analysis and strategic planning; developing GIS landbase datasets; GIS processing, enhancements, and remediation; GIS maintenance, workflows, policies, procedures and quality assurance/quality controls; website development; and working with clients and their stakeholders to facilitate the proper relationships for the highest quality of GIS data development.

The below matrix highlights some of our recent experience serving state and local governments:

Project Name	Client	State	Key Project Features										
			GIS Client	9-1-1 Client	GIS Strategic Planning	Data Gap Analysis	GIS Data Development and/or Remediation	CAD Data Development and Maintenance	MSAG and ALI to GIS Synchronization	GIS Database Design	Stakeholder Coordination	Boundary Facilitation	DATAMARK Software User
NG9-1-1 GIS Data Enhancement Project	Statewide	Maine	✓	✓		✓	✓		✓				
Statewide GIS Strategic Plan Update	Commonwealth of Virginia	Virginia	✓		✓	✓				✓			
Statewide AT&T Landbase Update	AT&T	CA, NV	✓				✓			✓	✓		
Accurate Coordinate Datasets Collection (ACDC)	U.S. Census Bureau	Nationwide	✓				✓			✓	✓		
Statewide Addressing Program Management	Addressing & Mapping Board	West Virginia	✓	✓			✓	✓	✓				✓
Statewide Broadband Mapping	Statewide	KY, LA, PA	✓			✓	✓			✓	✓		
Statewide Roadway Characteristics Inventory	Department of Transportation	Mississippi	✓				✓			✓	✓		
Statewide Straight Line Diagrams	Department of Transportation	New Jersey	✓				✓			✓	✓		
Master Address Database & Management Application	San José	California	✓		✓	✓	✓			✓	✓		✓
Public Safety Implementation, QAP & Enterprise GIS Plan	San Mateo County	California	✓	✓	✓	✓		✓			✓		✓
SanGIS – DATAMARK Quality Assurance Plan	San Diego County	California	✓		✓	✓				✓	✓		
DATAMARK VEP, ACE, & Quality Assurance Plan	Garrett County Public Safety	Maryland	✓	✓		✓				✓	✓	✓	✓
NG9-1-1 Address Assessment & Action Plan	Caroline County Emergency Services	Maryland	✓	✓		✓	✓		✓	✓	✓	✓	✓
Address Database & Maintenance	Manatee County	Florida	✓	✓		✓	✓		✓				✓
Orleans Parish Communications District	New Orleans	Louisiana	✓	✓									✓
Mahoning County NG9-1-1	Mahoning County	Ohio	✓	✓			✓		✓	✓			
DATAMARK QAP, ACE & VEP	Washington County	Florida	✓	✓		✓	✓		✓	✓	✓		✓
DATAMARK VEP Editor	Walton County	Florida	✓	✓									✓
CAD (Tyler New World) GIS Data Enhancement	City of Goodyear	Arizona	✓	✓			✓	✓		✓	✓		
DATAMARK Boundary Facilitation, & VEP	Queen Anne's County	Maryland	✓	✓							✓	✓	✓
QAP, ACE, VEP Editor a& Boundary Clean-Up	Jackson County	Florida	✓	✓		✓	✓		✓	✓	✓		✓
Quality Assurance Plan & MRAD	Merced County	California	✓	✓	✓	✓	✓			✓	✓	✓	
E9-1-1 & Parcel Data Conversion & GIS Services	Beaver County Emergency Services	Pennsylvania	✓	✓	✓		✓	✓	✓	✓	✓		
Geographic Information Systems Footprint	Washington County Public Safety	Pennsylvania	✓	✓	✓		✓	✓	✓	✓	✓		
E9-1-1 & Parcel Data GIS Services	Butler County Public Safety	Pennsylvania	✓	✓	✓		✓	✓	✓	✓	✓		
NG9-1-1 GIS Data Prep Support	Office of Unified Communications	D.C.		✓		✓	✓	✓	✓		✓		
Comprehensive Hazard Mitigation Services	PA Emergency Management Agency	Pennsylvania	✓	✓			✓			✓			
Landbase Update	Allegheny County GIS	Pennsylvania	✓				✓						
DVIC Portal	Delaware Valley Incident Command	Pennsylvania	✓	✓		✓							✓

Similar projects successfully completed by DATAMARK within the past five (5) years are documented on the following pages.



Merced County, CA

GIS Master Road and Address Database Implementation Services

Contact/Reference:

Gene Barrera, GIS Manager
gene.barrera@countyofmerced.com
209.385.7507

Project Duration/Completion:

January 2018 - December 2019

DATAMARK developed a Strategic Implementation Plan (SIP) for the Merced County GIS Master Road and Address Database (MRAD). The SIP set the stage for Merced County to implement a NG9-1-1 compliant, GIS data solution. The specific tasks for this effort included:

- » Assessment of Current Public Safety System GIS Usage, Available GIS Data and Current Public Safety Data Governance
- » Assessment of Public Safety GIS Data Quality, Data Gaps and Level of Effort to Fill the Gaps
 - Review of Public Safety GIS Data Maintenance and Data Sharing Workflows
 - Creation of Draft and Final Document

DATAMARK also performed data consolidation and remediation services that utilized the DATAMARK VEP and Address Comparison and Evaluation (ACE) tools. Specific tasks included:

- » Schema Design - proposed and built consensus around a database schema design that met the business needs of the County and found compliance with the Esri Local Government Information Model (LGIM) and the NENA NG9-1-1 GIS Data Model.
- » Data Completeness Assessment
 - Address Completeness Assessment
 - Address Comparison Evaluation (ACE)
 - Develop Master Address Database (MAD)
 - Road Centerline Completeness
 - Data Accuracy Assessment

In partnership with Esri, DATAMARK also performed ArcGIS enterprise migration services to address the installation upgrade and configuration of the ArcGIS Enterprise platform.



The DATAMARK team's cross-disciplinary expertise in public safety and GIS, as well as the work they have been conducting in support of California's NG9-1-1 initiative, makes them a true partner and leader in GIS innovation.

- Gene Barrera, GIS Manager





San Mateo County, CA

Public Safety GIS Data Implementation & Quality Assurance Plan

Contact/Reference:

Dan Belville

Public Safety Communications Director

dbelville@smcgov.org / 650.363.4915

Project Duration/Completion:

January 2018 - April 2018

DATAMARK developed a Public Safety GIS Data Implementation & Quality Assurance Plan (QAP) to set the stage for the San Mateo County Office of Public Safety Communications to implement a NG9-1-1 compliant, GIS data solution. The specific tasks for this effort included:

- » Assessment of Current Public Safety System GIS Usage, Available GIS Data and Current Public Safety Data Governance
- » Assessment of Public Safety GIS Data Quality, Data Gaps and Level of Effort to Fill the Gaps
 - Review of Public Safety GIS Data Maintenance and Data Sharing Workflows
 - Creation of Draft and Final Document

The QAP served as a roadmap for the successful development of NG9-1-1 data for PSC's new Versaterm CAD system. The QAP also provided NENA standards summaries and background.

Furthermore, DATAMARK provided an enterprise GIS system architecture design that included a comprehensive needs assessment based on two rounds of departmental interviews and an implementation/migration plan for a proposed solution.

The project assessed the County of San Mateo's business architecture (departmental workflows that currently use GIS or could benefit from the use of GIS); data architecture (existing and needed geospatial data to support the GIS-based workflows); and technical architecture (server infrastructure, cloud versus on-premise environment, hardware, software/licensing, mobile data collection, map-based web applications, etc.). The needs assessment documented the existing "as-is" environment for each of the business, data, and technical architectures and provided recommendations for the proposed "to be" environment for each of the business, data, and technical architectures.



Mahoning County, OH

GIS Services for Transition to NG9-1-1

Contact/Reference:
Maggi McGee, E9-1-1 Director
mmcgee@mahoningcountyoh.gov
330.740.2081

Project Duration/Completion:
January 2019 - December 2019

DATAMARK provided a wide range of GIS services for implementation of Mahoning County's Phase I & II compliant E9-1-1 system transition to NG9-1-1. Mahoning County includes approximately 170,000 properties, 110,200 addressable structures, seven different wireless carriers, 256 cell towers, and 2,162 miles of streets.

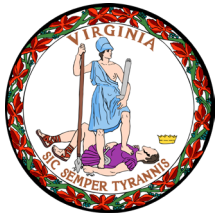
The team performed:

- » Development of a testing plan to evaluate wireless carrier infrastructure and information for Phase II compliance, a database design compliant with NENA and Ohio Location Based Response System (LBRS) standards
- » Gap analysis of the county's existing GIS road centerline and addressable structure data against current digital oblique imagery
- » Field verification of data gaps to accurately map the county's road centerlines, address points, cell towers, and Emergency Service Zones (ESZs)
- » Implementation of an Addressing Webportal for the addressing authority's assignment of new addresses
- » Training of addressing authorities on Addressing Webportal
- » GIS data maintenance services provided for addresses, road centerlines, ESZs, and cell towers for LBRS and NENA compliance
- » MSAG/ALI synchronization services
- » Fire hydrant collection coordination
- » PSAP GIS data distribution and loading support

DATAMARK utilized Esri's ArcGIS platform with the Pictometry toolbar to perform the in-office gap analyses. Field verification included the utilization of Panasonic Toughbooks loaded with Esri ArcPad to collect digital photographs of each verified structure and hyperlinking them to each address point.

Utilizing Esri's JavaScript API, DATAMARK developed a customized Addressing Web Portal application to assign new addresses in the GIS database in the County's Esri ArcGIS Server for SQL server environment. Procedure manuals and on-site training services were provided to addressing authorities. The resultant database provides the county dispatch centers with the ability to display the 9-1-1 caller's name, address, and specific emergency responder information, as well as the wireless caller's coordinate location. Emergency responders will be able to quickly navigate to and locate individuals in need.

Original project initiation started November 2007. Due to repeated agreement renewals and requests for additional services, DATAMARK has an active agreement for services and staff augmentation with the County.



Commonwealth of Virginia, VA

GIS Strategic Plan Update

Contact/Reference:

Joe Sewash, VGIN Coordinator
Joe.sewash@vdem.virginia.gov
804.305.2953

Project Duration/Completion:

2015

DATAMARK provided professional services to update the 2015 to 2020 statewide geographic information system (GIS) strategic plan for the Commonwealth of Virginia. The purpose of the project was to develop a five-year update of the Virginia GIS Strategic Plan to incorporate the emergence of NG9-1-1. The project stakeholders recognized that NG9-1-1 requires new roles, responsibilities, and coordination for GIS professionals at all levels of public safety communications group management. In addition, the project was tasked with ensuring that the strategic plan continued to align with local, regional, state agency, education, and private sector requirements.

The NG9-1-1 initiative will update the 9-1-1 service infrastructure to improve emergency response in an increasingly wireless and mobile society. Spatial data is one of the cornerstone components of a fully implemented NG9-1-1 system. For the GIS community, this means an increased accuracy standard, a more frequent update cycle, entirely new public safety datasets and a regional footprint of data.

The services provided to the Commonwealth of Virginia included:

- » Comprehensive stakeholder outreach program which included
 - Town hall meetings
 - Online survey
 - One-to-one interviews
- » Analysis of the data collected from the stakeholder outreach
- » Update to the GIS strategic plan to incorporate Next Generation 9-1-1 (NG9-1-1) requirements

The updated GIS strategic plan directly supports NG9-1-1 by defining the new role that GIS must serve at both the state and local levels. At the local level, address authorities must begin evaluating workflow methodologies and business practices that support timely entry of new addresses into the GIS database. At the state level, new technologies need to be evaluated that support the timely collection, aggregation, and quality control of location data for use at the regional and local level.

Michael Baker**INTERNATIONAL***We Make a Difference*

October 2017

COMMITMENT TO EQUAL EMPLOYMENT OPPORTUNITY AND DIVERSITY**TO ALL EMPLOYEES OF MICHAEL BAKER INTERNATIONAL, LLC**

At the core of any dynamic, driven company is its people. At Michael Baker International, we know that our people - their passions, experience, capabilities and talent - will propel us to new heights as a client-focused, employee-driven company engineered for continuous growth. They will discover the next innovation to solve one of our client's pressing challenges. They will apply their passion and dedication to making a difference in their work and in the communities where they live.

Part of our strength comes from our ongoing commitment to attracting, training and retaining a diverse workforce that represents the diversity of both our industry and our communities.

Michael Baker does not and will not discriminate against any applicant employee, customer or vendor on the basis of race, religion, color, national origin, sex, age, sexual orientation/gender identity, marital status, citizenship status, creed, status as a protected veteran, an individual with a disability, or any other category protected by applicable federal, state, or local laws at all levels of employment. In addition, Michael Baker is committed to a policy of taking affirmative action to employ and advance in employment qualified protected veteran employees. Such affirmative action shall apply to all employment practices, including (but not limited to) hiring, upgrading, demotion or transfer, recruitment, recruitment advertising, layoff or termination, rates of pay or other forms of compensation. This policy also applies to selection for training, including apprenticeship and on-the-job training. Decisions related to personnel policies and practices shall be made on the basis of an individual's capacity to perform a particular job and the feasibility of any necessary job accommodation. Michael Baker will make every effort to provide reasonable accommodations to any physical and mental limitations of individuals with disabilities and to disabled veterans.

Michael Baker is also committed to retaining a work environment free from harassment, including sexual harassment or other conduct that has the effect of interfering with job performance or otherwise creating an intimidating, hostile or offensive work environment. It is Michael Baker's policy to prohibit any retaliation against an individual who files a complaint or participates in any action or investigation regarding an allegation of discrimination or harassment. Any applicant or employee who believes he/she has been discriminated against, harassed or retaliated against in violation of any of Michael Baker's policies as stated above should immediately contact Michael Baker's Human Resource Department or use Michael Baker's anonymous Ethics and Compliance Hotline by calling 1-855-828-3822 (domestic US) or 1-704-526-1163 (international calls).

As a federal contractor, Michael Baker develops and maintains affirmative action programs for minorities, females, protected veterans and individuals with disabilities and seeks compliance with all related laws, rules and regulations pertaining to these initiatives. We also participate in the E-

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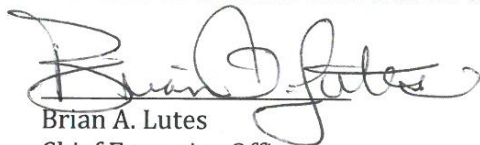
Office: 412.918.4000

Verify program to validate the legal work authorization of all newly hired and current employees to ensure our compliance with immigration policies.

Michael Baker's Human Resources Department is responsible for the implementation and monitoring of our equal employment opportunity and affirmative action programs. It is the responsibility of every manager and employee to make sure that these programs are adhered to and executed in a duly faithful, reasonable and responsible manner.

Michael Baker is committed to abiding by the Pay Transparency Nondiscrimination Provisions. We will not discharge or in any other manner discriminate against employees or applicants because they have inquired about, discussed, or disclosed their own pay or the pay of another employee or applicant. Michael Baker employees who have access to the compensation information of other employees or applicants as part of their essential job functions are informed and trained to not disclose the pay of other employees or applicants to individuals who do not otherwise have access to compensation information, unless the disclosure is (a) a response to a formal complaint or charge; (b) in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer; or (c) consistent with Michael Baker's legal duty to furnish the information.

A diverse workforce creates energy and innovation, helping to make Michael Baker International a great place to work. I urge everyone to work together as one Michael Baker International so that We Make a Difference in all that we do.



Brian A. Lutes
Chief Executive Officer
Michael Baker International, LLC

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Local Office: 1400 W. Markham Street, Suite 204, Little Rock, AR 72201

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Michael Baker
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