Tommie C. Martin, District I
610 E. Highway 260, Payson, AZ. 85547
(928) 474-2029

Michael A. Pastor, District II
1400 E. Ash St. Globe, AZ. 85501
(928) 425-3231 Ext. 8753

John D. Marcanti, District III
1400 E. Ash St. Globe, AZ. 85501
(928) 425-3231 Ext. 8753

GILA COUNTY

www.gilacountyaz.gov

Don E. McDaniel Jr., County Manager
Clerk of the Board
Phone (928) 425-3231 Ext.8761

Jeff Hessenius, Finance Director
Phone (928) 425-3231 Ext. 8743

FAX (928) 425-0319
TTY: 7-1-1

PROFESSIONAL SERVICES CONTRACT NO. 020714

BUCKHEAD MESA FLIGHT MAPPING

THIS AGREEMENT, made and entered into this 12th day of March, 2014, by and between Gila County, a political subdivision of the State of Arizona, hereinafter designated the **COUNTY,** and Kenney Aerial Mapping, Inc. of the City of Phoenix, County of Maricopa, State of Arizona, hereinafter designated the **CONTRACTOR.**

WITNESSETH: That the Contractor, for and in consideration of the sum to be paid him by the County, in the manner and at the time hereinafter provided, and of the other covenants and agreements herein contained, hereby agrees, for himself, his heirs, administrators, successors, and assigns as follows:

ARTICLE I – SCOPE OF SERVICES: The Contractor will perform aerial flight mapping pursuant to Informal RFQ No. 020714, by mention made a binding part of this contract as set forth herein.

ARTICLE II – SCHEDULE AND FEES:

ID	TASK NAME	COST
1	Flight, Film Processing and Scanning	$1,145.00
2	Compilation, Editing and Quality Control	$1,780.00
3	Digital Orthophotography	$ 65.00
	PROJECT TOTAL	$2,990.00

Refer to Attachment "A" to Professional Services Contract No. 020714, by mention made a binding part of this agreement as set forth herein. To the extent that the terms and conditions of this Service Agreement conflict with the Terms and Conditions of Attachment "A", the terms and conditions of this service agreement will prevail and govern the contractual relationship between the parties.

ARTICLE III -- INDEMNIFICATION CLAUSE: Contractor shall indemnify, defend, save and hold harmless the County of Gila and its officers, officials, agents, and employees, and any jurisdiction or agency issuing permits for any work included in the project, their officers, agents and employees, (hereinafter referred to as "Indemnitee") from and against any and all suits, claims, cost of litigation, actions, liabilities, damages, losses, expense, cost or claims of any character or any nature arising out of the work done in fulfillment of the terms of this Contract (including court costs, attorneys' fees, and costs of claim processing, investigation and litigation) (hereinafter referred to as "Claims") for bodily injury or personal injury (including death), or loss or damage to tangible or intangible property caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of Contractor or any of its owners, officers, directors, agents, employees or subcontractors. This indemnity includes any claim or amount arising out of or recovered under the Workers' Compensation Law or arising out of the failure of such contractor to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. It is the specific intention of the parties that the Indemnitee shall, in all instances, except for Claims arising solely from the negligent or willful acts or omissions of the Indemnitee, be indemnified by Contractor from and against any and all claims. It is agreed that Contractor will be responsible for primary loss investigation, defense and judgment costs where this indemnification is applicable. In consideration of the award of this contract, the Contractor agrees to waive all rights of subrogation against the County, its officers, officials, agents and employees for losses arising from the work performed by the Contractor for the County.

ARTICLE IV - INSURANCE REQUIREMENTS: Contractor and subcontractors shall procure and maintain until all of their obligations have been discharged, including any warranty periods under this Contract are satisfied, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors.

The insurance requirements herein are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract. The County in no way warrants that the minimum limits contained herein are sufficient to protect the Contractor from liabilities that might arise out of the performance of the work under this contract by the Contractor, his agents, representatives, employees or subcontractors and Contractor is free to purchase additional insurance as may be determined necessary.

A. **MINIMUM SCOPE AND LIMITS OF INSURANCE:** Contractor shall provide coverage with limits of liability not less than those stated below.

1. **Commercial General Liability – Occurrence Form**
   Policy shall include bodily injury, property damage and broad form contractual liability coverage.

• General Aggregate	$2,000,000
• Products – Completed Operations Aggregate	$1,000,000
• Personal and Advertising Injury	$1,000,000
• Each Occurrence	$1,000,000

   a. The policy shall be endorsed to include the following additional insured language: **"The County of Gila shall be named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of the Contractor".**

2. **Automobile Liability**
   Bodily injury and property damage for any owned, hired, and non-owned vehicles used in the performance of this Contract.

Combined Single Limit (CSL)	$1,000,000

   a. The policy shall be endorsed to include the following additional insured language: **The County of Gila shall be named as additional insured with respect to liability arising out of the activities performed by, or on behalf of the Contractor, including automobiles owned, leased, hired or borrowed by the Contractor".**

3. **Worker's Compensation and Employers' Liability**

Workers' Compensation	Statutory
Employers' Liability	
Each Accident	$100,000
Disease – Each Employee	$100,000
Disease – Policy Limit	$500,000

   a. Policy shall contain a **waiver of subrogation** against the County of Gila.

4. **Professional Liability (Errors and Omissions Liability)**

Each Claim	$1,000,000
Annual Aggregate	$2,000,000

   a. In the event that the professional liability insurance required by this Contract is written on a claims-made basis, Contractor warrants that any retroactive date under the policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of two (2) years beginning at the time work under this Contract is completed.

B. **ADDITIONAL INSURANCE REQUIREMENTS:** The policies shall include, or be endorsed to include, the following provisions:

1. On insurance policies where the County of Gila is named as an additional insured, the County of Gila shall be an additional insured to the full limits of liability purchased by the Contractor even if those limits of liability are in excess of those required by this Contract.
2. The Contractor's insurance coverage shall be primary insurance and non-contributory with respect to all other available sources.
3. Coverage provided by the Contractor shall not be limited to the liability assumed under the indemnification provisions of this Contract.

C. **NOTICE OF CANCELLATION:** Each insurance policy required by the insurance provisions of this Contract shall provide the required coverage and shall not be suspended, voided, canceled, reduced in coverage or endorsed to lower limits except after thirty (30) days prior written notice has been given to the County. Such notice shall be sent directly to **Jeannie Sgroi, 1400 E. Ash St., Globe, AZ 85501** and shall be sent by certified mail, return receipt requested.

D. **ACCEPTABILITY OF INSURERS:** Insurance is to be placed with insurers duly licensed or approved unlicensed companies in the state of Arizona and with an "A.M. Best" rating of not less than B+ VI. The County in no way warrants that the above-required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.

E. **VERIFICATION OF COVERAGE:** Contractor shall furnish the County with certificates of insurance (ACORD form or equivalent approved by the County) as required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

All certificates and endorsements are to be received and approved by the County before work commences. Each insurance policy required by this Contract must be in effect at or prior to commencement of work under this Contract and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this Contract or to provide evidence of renewal is a material breach of contract.

All certificates required by this Contract shall be mailed directly to **Jeannie Sgroi, 1400 E. Ash St., Globe, AZ 85501** or email to Jeannie Sgroi at jsgroi@gilacountyaz.gov. The County project/contract number and project description shall be noted on the certificate of insurance. The County reserves the right to require complete, certified copies of all insurance policies required by this Contract at any time.

F. **SUBCONTRACTORS:** Contractors' certificate(s) shall include all subcontractors as additional insured's under its policies or Contractor shall furnish to the County separate certificates and endorsements for each subcontractor. All coverage's for subcontractors shall be subject to the minimum requirements identified above.

G. **APPROVAL:** Any modification or variation from the insurance requirements in this Contract shall be made by the County Attorney, whose decision shall be final. Such action will not require a formal Contract amendment, but may be made by administrative action.

ARTICLE V – LEGAL ARIZONA WORKERS ACT COMPLIANCE: Contractor hereby warrants that it will at all times during the term of this Contract comply with all federal immigration laws applicable to Contractor's employment of its employees, and with the requirements of A.R.S. § 23-214 (A) (together the "State and Federal Immigration Laws"). Contractor shall further ensure that each subcontractor who performs any work for Contractor under this contract likewise complies with the State and Federal Immigration Laws.

County shall have the right at any time to inspect the books and records of Contractor and any subcontractor in order to verify such party's compliance with the State and Federal Immigration Laws.

Any breach of Contractor's or any subcontractor's warranty of compliance with the State and Federal Immigration Laws, or of any other provision of this section, shall be deemed to be a material breach of this Contract subjecting Contractor to penalties up to and including suspension or termination of this Contract. If the breach is by a subcontractor, and the subcontract is suspended or terminated as a result, Contractor shall be required to take such steps as may be necessary to either self-perform the services that would have been provided under the subcontract or retain a replacement subcontractor, as soon as possible so as not to delay project completion.

Contractor shall advise each subcontractor of County's rights, and the subcontractor's obligations, under this Article by including a provision in each subcontract substantially in the following form:

"Subcontractor hereby warrants that it will at all times during the term of this contract comply with all federal immigration laws applicable to Subcontractor's employees, and with the requirements of A.R.S. § 23-214 (A). Subcontractor further agrees that County may inspect the Subcontractor's books and records to insure that Subcontractor is in compliance with these requirements. Any breach of this paragraph by Subcontractor will be deemed to be a material breach of this contract subjecting Subcontractor to penalties up to and including suspension or termination of this contract."

Any additional costs attributable directly or indirectly to remedial action under this Article shall be the responsibility of Contractor. In the event that remedial action under this Article results in delay to one or more tasks on the critical path of Contractor's approved construction or critical milestones schedule, such period of delay shall be deemed excusable delay for which Contractor shall be entitled to an extension of time, but not costs.

ARTICLE VI – LAWS AND ORDINANCES: This agreement shall be enforced under the laws of the State of Arizona. Contractor shall maintain in current status all Federal, State and Local licenses and permits required for the operation of the business conducted by the Contractor. The Contractor shall comply with the applicable provisions of the Americans with Disabilities Act (Public Law 101-336, 42 U.S.C. 12101-12213) and applicable federal regulations under the Act.

ARTICLE VII – CANCELLATION: This agreement is subject to cancellation pursuant to **A.R.S. § 38-511.** If this Agreement is terminated, the County shall be liable only for payment for services rendered and accepted material received by the County before the effective date of termination. The Contractor shall be considered in default of this contract and such default will be considered as cause to terminate the contract for any of the following reasons if the Contractor:

a. Fails to perform the work under the contract within the time specified in the "Notice to Proceed"; or
b. Fails to perform the work or fails to provide sufficient workers, equipment or data to assure completion of work in accordance with the terms of the contract; or
c. Performs the work unsuitably or neglects or refuses to follow the Scope of Work; or
d. Discontinues the prosecution of the work; or
e. Fails to resume work which has been discontinued within a reasonable time after notice to do so; or
f. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency; or
g. Makes assignment for the benefit of creditors; or
h. If it is found that gratuities were offered or given by the Contractor or any agent or representative of the Contractor, to any officer or employee of the County.

ARTICLE VIII – CONTRACT PERIOD: Upon receipt of Notice to Proceed, Contractor shall have ninety (90) calendar days to complete this project.

ARTICLE X – PAYMENT: The Scope of Services as outlined above will be performed on a lump sum basis with a not-to-exceed without written authorization budget of **$2,990.00**.

Each invoice must include itemized task and dollar figure for each task completed. Each invoice must show a signature by the County representative confirming services rendered and authorizing payment.

IN WITNESS WHEREOF, two (2) identical counterparts of this contract, each which shall include original signatures and for all purposes be deemed an original thereof, have been duly executed by the parties hereinabove named, on the date and year first above written.

In return for the performance of the Contract by the Contractor, the County agrees to pay the Contractor amount of not more than $2,990.00 including all applicable taxes through a payment schedule as described in the Contract documents and as may be modified and executed by change orders.

GILA COUNTY PROFESSIONAL SERVICES CONTRACT NO. 020714

GILA COUNTY:

Don E. McDaniel, Jr., County Manager

KENNEY AERIAL MAPPING, INC.:

Signature of Contractor

John Cahoon

Print Name

GILA COUNTY

Tommie C. Martin, District I Supervisor
Michael A. Pastor, District II Supervisor
John D. Mercanti, District III Supervisor

Don McDaniel, County Manager
Jeff Hessenius, Finance Director
(928) 425-3231

INFORMAL REQUEST FOR QUALIFICATIONS NO. 020714

BUCKHEAD MESA FLIGHT MAPPING

It is the intent of Gila County to obtain a qualified Firm to conduct a 205± acre mapping flight along with a 2 foot contour and planimetric feature generation of Gila County's Buckhead Mesa Landfill in Northern Gila County.

Informal Request for Qualifications for the material or services as specified will be received by the Gila County Finance Department, until the time and date cited. Any proposal received later than the date and time specified below will be returned unopened. Late proposals shall not be considered. The prevailing clock shall be the atomic clock in the reception area of the Guerrero Complex building.

BID REQUEST DUE DATE: 3:00 PM/MST, Friday, February 21, 2014

PLEASE SUBMIT the Request for Qualifications Proposal and the Proposal Signature Page in a sealed envelope; The Words "Informal Request for Qualifications No. 020714" with Proposal Title "Buckhead Mesa Flight Mapping" Date: "February 21 , 2014" Time: "3:00 P.M." shall be written on the envelope.

DELIVERY ADDRESS:

Gila County
Guerrero Building
1400 E. Ash Street
Globe, Arizona 85501

Questions regarding the technical aspects of this Informal Request for Qualifications should be directed to: Thomas Homan, GIS Coordinator, 928-402-8515, thoman@gilacountyaz.gov.

Request for Qualifications Proposals may be mailed or hand delivered to the above Delivery Address prior to the expiration of the Bid Request Due Date.

INFORMAL REQUEST FOR QUALIFICATIONS #020714
BUCKHEAD MESA MAPPING

SCOPE OF SERVICES

This project is located in Gila County and involves aerial mapping, 2ft contour generation and planimetric feature extraction of the area occupied by the Buckhead Mesa Landfill for operational evaluation purposes.

The project limits are within portions of N ½ of T11N R9E Section 2 and the S ½ of T12N R9E Sec 35 G&SRBM. Project planning shape file can be found on County FTP site under ftp://ftp.gilacountyaz.gov/public/publicworks/GIS/Buckhead%20Mesa%202013%20Flight/

Services Requested:

- Project to be delivered on NAD-83, AZ State Plane, East Zone, NAVD88(Geoid12A) Coordinate system
- Aerial Imagery of the project area.
  - Digital imagery will be 0.25 ft pixel size or better natural, full color, balanced product.
  - If imagery is tiled, then each tile will overlap its neighbor by fifty (50) feet for a total of one hundred (100) feet of total overlap.
- Contour Generation:
  - Topographic contours will be generated at 2-foot intervals annotated consistent with 1" = 100' scale mapping for the Project Area
  - Contours shall be unbroken 3D polylines located on even elevation increments
  - Contours shall not have areas of broken contours due to canopy
  - Elevation text and other contour information items shall not cause a break in contour line
  - Contour smoothing may be accomplished via addition of points near vertices and not by curve-fitting or splining
- Planimetrics:
  - Features commensurate with 1" = 100' scale mapping of man-made objects.
  - Natural features such as trees and other vegetation shall not be extracted.
  - Features will be extracted consistent within accepted industry standards

INFORMAL REQUEST FOR QUALIFICATIONS #020714
BUCKHEAD MESA MAPPING

- Deliverables:
  - Topo, DTM and planimetrics in AutoCAD 2000 format 2d and 3d drawings
  - Imagery in both uncompressed tif, and compressed mrSid format.
  - Deliverables shall be provided on USB connected medium such as flash/thumb drive or external hard drive. CD/DVD media are not acceptable delivery formats.

INFORMAL REQUEST FOR QUALIFICATIONS #020714
BUCKHEAD MESA MAPPING

COUNTY SURVEYING

The County wishes to be an active participant in the mapping process by performing the paneling/control portions of the flight. All portions of this step will be supervised by a Registered Land Surveyor (RLS) currently licensed within the State of Arizona by the Board of Technical Registration.

The County will coordinate with the selected Contractor as to timing, construction and placement of aerial targets. Once the panels are set and surveyed the coordinates will be provided to the Contractor.

In addition, the County will be placing a number of blind panels to be used as a QA/QC process prior to deliverable product generation. The County will provide approximate coordinates sufficient to identify the blind panels. The Contractor will provide their panel point determination to the County for evaluation. Once successful review is completed by the County the correct blind survey points will be provided.

INFORMAL REQUEST FOR QUALIFICATIONS #020714
BUCKHEAD MESA MAPPING

SUPERVISORY QUALIFICATIONS

All photogrammetry work as it relates to extraction of measurements, make maps and interpret data from images shall be performed under the supervision of a Certified Photogrammetrist by the American Society of Photogrammetry and Remote Sensing (ASPRS) and an Arizona Registered Land Surveyor (RLS)

INFORMAL REQUEST FOR QUALIFICATIONS #020714
BUCKHEAD MESA MAPPING

EVALUATION FACTORS

Gila County intends to retain the Firm whose Qualifications it believes is most advantageous to the County. Evaluation of the Qualification will be based on qualifications of the respondents as Gila County wishes to hire a Firm with significant professional credentials.

The selection panel will consider the following factors:

- Soundness of technical approach
- Project management approach
- Qualifications of the project team
- Project references
- Quality of response and adherence to required format
- Proposed project schedule and evidence of ability to meet project dates
  - Date available to begin project
  - Time needed to complete project

INFORMAL REQUEST FOR QUALIFICATIONS #020714
BUCKHEAD MESA MAPPING

QUALIFICATIONS RESPONSE

In order to assist our panel in making a selection, Gila County requires that all respondents adhere to the response format outlined in this section. Show the Project Schedule for each Phase. Responses shall be simply prepared, brief and to the point. Needless lengthy documents filled with extraneous material will not be favorably received.

- Cover Letter / Introduction
- Technical Approach
- Project Management Approach
- Project Team
  - Personnel assignments, Resumes, Subcontractors
- Project Experience
  - Previous project experience specifically related to this project
- Project Schedule
  - Date available to begin project
  - Time needed to complete project
- Cost Summary
  - A cost summary is to be included with the IRFQ for this project. It will not be a factor of the selection process but allows us to evaluate this portion of the project within the total project budget

INFORMAL REQUEST FOR QUALIFICATIONS #020714
BUCKHEAD MESA MAPPING

PROPOSAL SIGNATURE

The Firm submitting the proposal certifies that the proposal is genuine, and is not in any way collusive or a sham; that the proposal is not made with the intent to restrict or prohibit competition; that the Firm submitting the proposal has not revealed the contents of the proposal to, or in any way colluded with, any other Firm which may compete for the contract; and that no other Firm which may compete for the contract has revealed the contents of a proposal to, or in any way colluded with, the Firm submitting this proposal.

Firm Submitting Proposal:

_____	_____
Company Name	Signature of Authorized Person
_____	_____
Address	Printed Name
_____	_____
City State Zip	Title

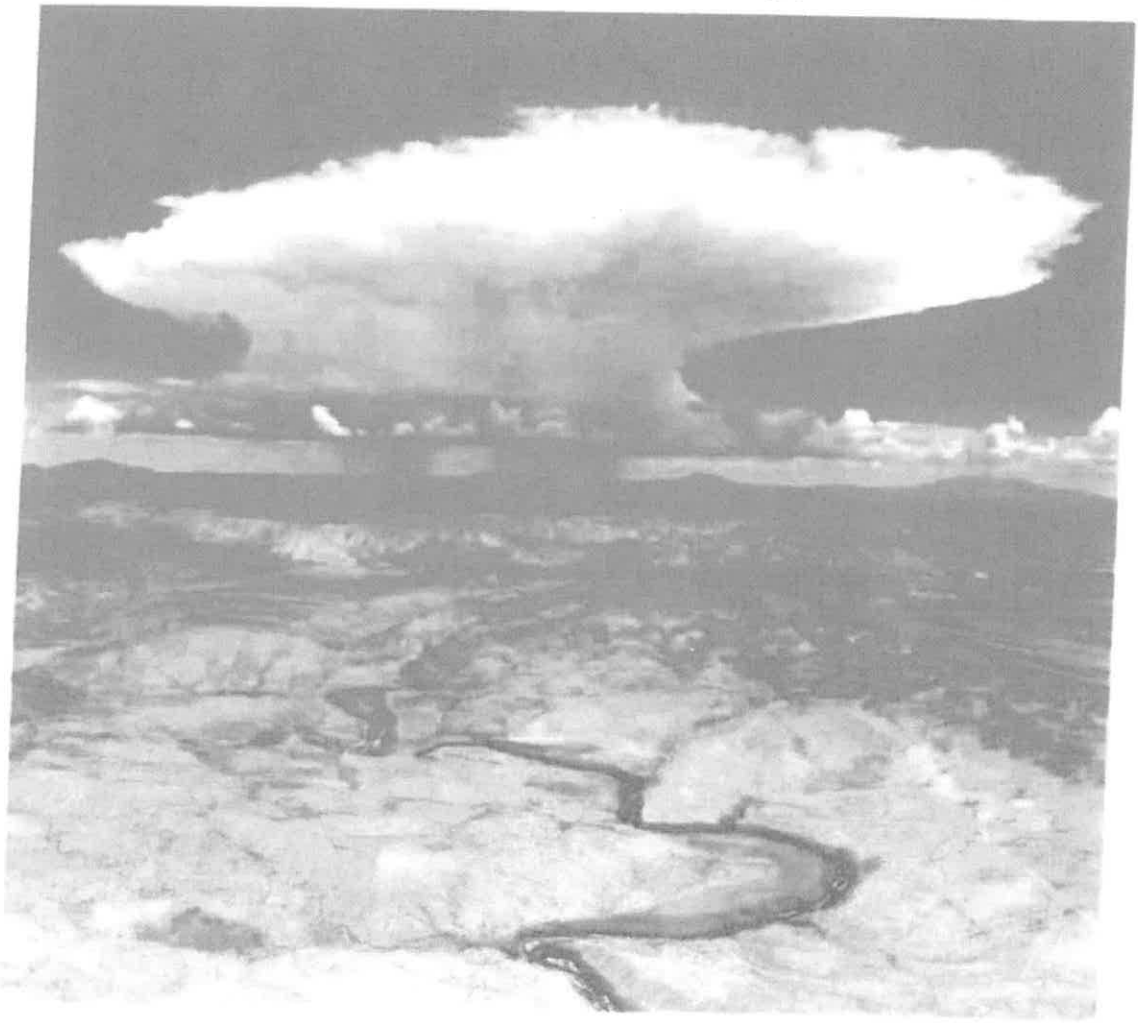
Proposal must be signed by a duly authorized individual(s) eligible to sign contract documents for the Firm.

<u>For clarification of this proposal, contact:</u>

Name: _____ Phone No.: _____

All procurement activities conducted by Gila County are in conformance with the rules and regulations of Gila County procurement code. A copy of the Code is available for review in the office of the Clerk of the Board, Gila County Courthouse 1400 East Ash Street, Globe, AZ.

Statement of Qualifications for Buckhead Mesa Landfill Aerial Mapping Project Number 020714 Prepared for Gila County, Arizona



Prepared By
Kenney Aerial Mapping, Inc.
February 17, 2014

Kenney Aerial Mapping, Inc.

Photogrammetric Services Since 1963

John W. Cahoon, C.P. President, CEO

4008 North 15th Avenue
Phoenix, Arizona 85015
Phone (602) 258-6471

Stan P. Woessner Jr., Vice President, COO

871 Coronado Center Dr #200
Henderson NV 89015
Phone:(702) 260-3033

February 17, 2014

Tom Homan
Gila County
Guerrero Building
1400 E. Ash Street
Globe, Arizona 85501

Re: Buckhead Mesa Landfill Aerial Mapping No. 020714

Dear Mr. Homan,

Please accept this package as a reflection of our keen interest in performing aerial mapping and related surveying services for Gila County. Kenney Aerial Mapping, Inc. has been providing professional photogrammetric services since 1963. We believe our 50 years of experience working throughout the west indicates our commitment to excellence. Our primary mission is to listen to our clients and offer appropriate solutions to arrive at the best possible outcomes.

Our qualified personnel include two Certified Photogrammetrists (ASPRS) and an Arizona Registered Land Surveyor. Many public agencies are beginning to prefer the participation of both types of registrants for performing projects of this nature. Most of our staff members have decades of experience, and with five stereoplotting workstation and several more imaging and editing platforms we have a very high production capacity for geospatial and topographic mapping services.

John Cahoon, President and Certified Photogrammetrist, will be the designated point of contact for this contract. He can be reached at our office phone number - 602-258-6471 or by email at jcahoon@kam-az.com.

After reviewing our Statement of Qualifications, please let me know if you have any questions. We look forward to the opportunity to work with you on this important project and ask that we be considered for the award.

Sincerely,

John W. Cahoon, CP, President
Kenney Aerial Mapping, Inc.

Technical Approach

Project Design and Layout

The flight and control plan have been developed using georeferenced imagery and shapefiles provided by the County. Other data to be provided by the County may include locations, coordinates and metadata for the control used for establishing the project datum, and any existing mapping to tie in to. Georeferenced flight lines are developed and provided to the flight crew, then ground control locations are selected. The final project planning maps will be submitted in advance for County approval.

Aerial Photography

The surveyors and the flight crew will work closely together to determine the ideal flight date. The photo mission will be completed with a Zeiss RMK TOP 15 aerial camera. Color aerial photography will be flown in stereo at 1:7200 (1"=600') photo scale. After the flight we will prepare a final flight line index that shows the flight line numbers and the photo center locations along with other relevant information to be included in the Project Report.

Photogrammetric Scanning

Each exposure will be scanned on a photogrammetric quality scanner at approximately 2400 DPI to yield a nominal ground sample distance of .25'. The scanning will be completed from the negatives using a film role feeder. In no case will a negative need to be cut from the roll to be scanned. The imagery may also be auto-dodged during the scanning process. Contact prints will be produced after the scanning is complete, to prevent any chance of damage to the negatives during the printing process.

Aerotriangulation

There are six variables that must be resolved to achieve stereomodel orientation. These are the X,Y and Z location of the photo center and the 3 tilt axes (roll, pitch and yaw) of the camera at the instant of exposure. Full Digital Analytical Aerotriangulation will be used to generate tie points and pass points, but ground control and check points are read by the operator. After the solution is achieved we will forward our blind check point values to the County for review and comment. Upon receiving approval we will add the actual field surveyed values into the solution to further refine the results. Results of Aerotriangulation will be included in the Project Report.

Digital Terrain Modeling

The DTM will consist of manually digitized breaklines and mass points. Kenney Aerial Mapping firmly believes that breaklines are the key to any DTM, favoring them over mass points in virtually all our endeavors. The density of our breaklines in a project typically far outweighs the mass point density. We never autocorrelate mass points for topographic mapping purposes.

The DTM is used to create the Triangular Irregular Network (TIN) or surface file. The TIN is carefully checked again for accuracy and completeness, then two foot contours are generated as continuous, unbroken polylines.

Planimetric Features

Planimetric data is collected in much the same way as elevation data, with details being digitized point to point. In many cases the plan is collected in 3D when the feature can be used as a breakline. Roads and retaining walls are just two examples of data which serves a dual purpose. An important consideration is the level of detail required. We will digitize clearly visible planimetric features appropriate for the map scale of 1"=100'.

Digital Orthophotography

Color digital orthophotography will be developed with a .25' ground sample distance using the mapping DTM The imagery will be delivered per County specifications as one overall file in uncompressed tif and compressed sid format, and we can provide it in many different formats including tif, jpg and sid, to name a few.

When developing the imagery, we insure that elevated structures like bridges and freeway ramps are modeled correctly

by adding additional breaklines so that the features appear correctly placed in the image and not "smeared" to the terrain surface.

Deliverables, Review and Acceptance Procedures
Each delivery will be accompanied by a shipping memo listing complete file names and other relevant information. We will notify the County's Project Manager prior to each delivery to set aside the time necessary to assign personnel to review the datasets. Deliverables will include the following:

1) Final Flight Plan
2) Flight Line Index and Contact Prints
3) DTM and Topographic Mapping Data In ACAD 2000
4) Digital Orthophotography in Tif and Sid format
5) Project Report

Project Management Approach

Scoping meetings with clients and team members are essential to developing a comprehensive work plan. Our team is very experienced at working with public agencies in this capacity. The most important function of a consultant at this stage is to listen to the client and clearly understand the objectives and concerns related to the scope of work. Then, in conjunction with the client and any other stakeholders we can assist in developing solutions that efficiently achieve the goals and deliverables.

One of our strengths throughout a project life cycle is client communication. In every respect, Kenney Aerial Mapping will consult with the County, reviewing the proposed flight and control plans, schedule milestones and due dates for each task. During the project, relevant pilot deliverables are provided and critiqued by county staff. Our experience has shown that this can be immensely helpful in providing just the right deliverable.

The Project Manager will issue periodic reports to the County's designated representative, keeping them informed of progress and any issues which may arise from time to time. This will allow the County an opportunity to participate in the project as a decision making team member instead of simply an end user. The County's input into any final decisions we make, even on minor issues, is an essential element to the success of any project.

It is also the Project Manager's responsibility to keep project records accurately and securely. These include logging telephone conferences, issuing meeting notes to participants, recording data shipments and providing invoices. Each of these categories of record could be included in the Final Project Report.

Quality Control And Quality Assurance Statement
At Kenney Aerial Mapping we have developed rigorous procedures to assure our clients that their final deliverables are consistent with the scope of work, meet or exceed the required accuracy standards and perform their functions as efficiently as possible.

Our guiding principle is that each employee is responsible for obtaining the knowledge and skill sets required to produce quality work. Each employee will practice those methods that Senior Management has identified as necessary to complete the work in a manner which will achieve the firm's quality goals.

Employees are encouraged to review their areas of responsibility and to make recommendations on ways to improve our processes in consultation with the Quality Control Manager.

Consultant Interactions with Public Staff and the General Public
Every individual in position of responsibility on our team has had years of experience dealing with a variety of public agencies at the Federal, State, County and Municipal levels. We fully understand the importance of respecting the

agency's institutional requirements. We are also fully aware of the importance of properly dealing with the general public regarding issues such as access to private property during field work phases and other concerns.

An important part of the project planning process is to familiarize our team members with these requirements, whether it's communication protocols, reporting requirements, working with the public sector employees or working with the general public that we may come into contact with.

With regard to field and aviation work, safety of personnel is paramount and our team has a long history of safe practice. We will also strive to minimize traffic disruptions by placing aerial targets away from heavily traveled areas wherever possible, and to keep aerial targets off of private property to the greatest extent possible.

Responsiveness to Owner's Concerns
If a concern should arise, our response would be to clearly identify the concern, define its impact on relevant aspects of the project, then develop several reasonable alternatives to be discussed and reviewed with the County. Resolution of any issue is done with the County acting as a full, participating partner to the process.

Project Team

Kenney Aerial Mapping, Inc. has provided professional photogrammetric services since 1963. The firm has been based in Phoenix from its inception and was incorporated in the State of Arizona in 1968. We opened a marketing office in Las Vegas, Nevada in 1989, added production facilities in 1996 and started providing flight services there in 1997. The corporate office is located in Phoenix, where the vast majority of our mapping production takes place.

Our staff has demonstrated excellence in all phases of photogrammetry including project design, project management, aerial photography, analytical and GPS assisted aerotriangulation, topographic mapping and digital terrain modeling, digital orthophotography and CAD standard compliance.

Since inception, the firm has grown to become one of the largest photogrammetric service providers in the southwest. With five softcopy photogrammetric workstations and additional imaging and editing workstations we are highly qualified and capable of completing these types of photogrammetric mapping or imaging projects.

Through the decades we have completed thousands of diverse projects in the western United States and as far away as Georgia, West Virginia, Kentucky, Idaho, Mexico, Argentina and the Philippines. We have also kept abreast of the many advanced technologies now available for geospatial data collection and processing. We routinely partner with firms that provide direct digital image capture as well as LiDAR service providers and we are well acquainted with the advantages and the limitations of each.

Our firm is also well respected by our peers and colleagues in the regional geomatics community. This is, in part, evidenced by staff members being invited to teach photogrammetry at Phoenix College and ASU. We teach three units per year for surveying classes at Phoenix College and ASU's Del E Webb School of Construction Management.

In 2003, John Cahoon was invited to teach a full semester course in Photogrammetry at Phoenix College in the Civil Engineering Technology section and has held classes every year. Mr. Cahoon has also been teaching the Photogrammetry unit for the LSIT/RLS review seminar sponsored by the Arizona Land Surveyors Association since 2007. This kind of respect is well earned and we are honored by the confidence these educational institutions have placed in our staff.

Office Location
All Key Staff are located in our Phoenix Office. We anticipate that 100% of the photogrammetric process will be completed by our employees located within Maricopa County.

Personnel Availability and Experience

Resumes for the Key Personnel listed below are included in the appendix. These people will be available to perform their respective tasks throughout the course of the contract. Our Key Personnel were all involved in their respective specialty roles for the two projects described below.

Role	*Personnel*	*Total Experience*	*With Firm*
Project Principal	John Cahoon CP	32 years	22 years
Project Management	Richard Delgado CP	18 years	13 years
Project Land Surveyor	Rich Stockman RLS	25 years	2 years
Aerotriangulation	Stan Woessner	20 years	20 years
Production Management	Chuck LeMire	10 years	10 years
Stereocompilation	3 compilers	28 years avg.	(majority with KAM)

Flight Subconsultant

Valley Air Photos, flying out of Glendale Airport, will acquire the aerial photography and provide film processing and scanning for this project. Kevin Graville is the operations manager who will be responsible for this phase of the project. Nathan Litter is the chief pilot of Valley Air Photos and will be the pilot in charge during the flight.

Project Experience

Our records indicate that we have flown the Buckhead Mesa Landfill at least twice, in 1995 and in 2001. Many of our key personnel listed were employed by Kenney Aerial Mapping, Inc. during those times.

We have also flown scores of landfills throughout the western region and have worked directly with Gila County on several recent occasions.

Northern Parkway – Maricopa County Department of Transportation - 2013

The Northern Parkway project consists of the section from Sarival to Dysart and included several extensions at the mile and half mile streets. The primary purpose was to verify earth quantities that were moved at various phases of construction. The MCDOT staff determined that one half foot contours were needed to validate the volume computations. Therefore, we flew as low as we were legally allowed, at 1000' above terrain.

Ground control, blind aerial targets and dtm check points were all provided by County staff and the projects were flown at 1:2000 photo scale. In each of the four project flights our deliverables included a digital terrain model, full planimetric detail and topographic mapping at 1"=20' with a 0.5' contour interval. All deliverables passed the accuracy checks and met MCDOT Microstation CAD Standards.

Budget and Schedule – The project budget was approximately $44,000 per flight depending on exact limits for each one, and the last one included color obliques and hard copy photographic quality paper plots. The schedule was 34 working days after the flight and control. In each case we delivered our work products on time and within budget.

Client: Maricopa County Department of Transportation
Reference 1: Brian Dalager 602-506-4685 Reference 2: Jesse Hunter 602-506-8670

Sierrita and Twin Buttes Aerial Mapping

Kenney Aerial Mapping acted as the prime consultant on this project and engaged an engineering consultant to perform the ground control, check points, Airborne GPS surveying and post processing. The terrain is extremely complex sloping more than 1300 feet from west to east toward the Santa Cruz River, and includes two active pits with associated tailings piles nearby, along with heavy industrial planimetrics.

We flew over 120 square miles utilizing airborne GPS control techniques and captured the area of interest in color at a .3' pixel. We provided a DTM, detailed planimetrics, and topographic mapping files with a 2' contour at 1"=100' scale. Digital orthophotos were also generated as TIF and JPG files at a .4' pixel resolution.

Client: Freeport McMoRan Diane Kelts/JD Stitzer 520-393-2655

Project Schedule

All of our personnel are available for this project for the duration of the schedule. They will be operating exclusively out of our Phoenix location. Each key person's time of service with the firm is noted above. We can generally fly on two day's notice, weather permitting. We anticipate that it will require twelve working days to complete this project after the flight, receipt of control and County approval of the blind check point values derived during aerotriangulation.

Cost Summary

Flight, Film Processing and Scanning:	$ 1,145.00
Compilation, Editing and Quality Control:	$ 1,780.00
Digital Orthophotography:	$ 65.00
Project Total:	$ 2,990.00

Kenney Aerial Mapping Inc.

4008 North 15th Avenue, Phoenix, Arizona 85015
Phone (602) 258-6471 Fax: (602) 340-1877

871 Coronado Center Dr #200 Henderson, NV 89015
Phone:(702) 260-3033 Fax: (702) 260-3035

John W. Cahoon, President, CEO, CP

Stan P. Woessner, Vice President, COO

John W. Cahoon, CP - Kenney Aerial Mapping, Inc. – President

Education:
Bachelor of Science in Geography – 1982 – Oregon State University

Professional Registrations:
Certified Photogrammetrist # 903 – 1993 ASPRS

Professional Affiliations:
Sustaining Member: Arizona Professional Land Surveyors Association
Sustaining Member: Nevada Association of Land Surveyors

Experience:
Photogrammetric Mapping 32 Years
Years in Responsible Charge of Projects – 26 Years

Responsibility: Project Manager

Mr. Cahoon is a principal in the firm and has been employed by Kenney Aerial Mapping since 1993. During that time his duties have included stereo compilation on both analytical and softcopy stereoplotters, analytical aerotriangulation, digital orthophotography and quality assurance.

As President his current duties are focused on the area of business administration, project design and business development. He is also responsible for tracking industry trends and evaluating emerging technologies and applications.

He has extensive experience in project planning, coordination, writing specifications, man-hour estimating, flight planning and control point layout. Mr. Cahoon's responsibility for many projects is to act as a coordinator between team members, and within Kenney Aerial's various production departments.

Mr. Cahoon is also an Adjunct Faculty member at Phoenix College where he teaches a full semester course in Photogrammetry for the Land Surveying Degree program within the Civil Engineering Technology Department, He has held this position since 2004 and won the Golden Bear award for his work in 2009. In addition, he is a guest lecturer for the surveying class within the Del E. Webb School of Construction Management at ASU and conducts the Photogrammetry Section at the LSIT/RLS Review Seminar for the Arizona Professional Land Surveyors Association.

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John W. Cahoon, President, CEO, CP

Stan P. Woessner, Vice President, COO

Stan P Woessner - Kenney Aerial Mapping, Inc. –Vice President and COO

Education:
Associates Degree in CAD Drafting – 1995 – ITT Technical Institute

Professional Affiliations:
Sustaining Member: Arizona Professional Land Surveyors Association

Experience:
Photogrammetric Mapping 20 Years
Years in Responsible Charge of Projects – 12 Years

Responsibility: Aerotriangulation

Stan Woessner has been with Kenney Aerial Mapping for 20 years. During that time he has held every position in the firm that focused on photogrammetric mapping. He has production experience in analytical and softcopy stereo compilation as well as digital orthophotography and editing.

Mr. Woessner has four years of experience as our chief aerotriangulation specialist using fully automated aerotriangulation techniques. He works closely with the land survey team providing the ground control to validate the results of aerotriangulation through the use of blind control points and DTM check points. This key quality control process helps to insure the accuracy of the photogrammetric mapping services.

Stan is experienced with all the latest mapping techniques and equipment in the industry. As COO, his other responsibilities include staying current with the accelerating changes in technology advancement including the integration of LiDAR and photogrammetry, appropriate use of emerging technologies and oversight of best practices in our production and quality control workflows.

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John W. Cahoon, President, CEO, CP

Stan P. Woessner, Vice President, COO

Richard A Stockman, RLS – Kenney Aerial Mapping, Inc.
Vice President of Land Surveys

Education:
Oregon Institute of Technology
Associates degree in Land Surveying
Graduated 1986

Professional Registrations:
Oregon - 600013LS (dormant)
Arizona - RLS 36326

Professional Affiliations:
Member: Arizona Professional Land Surveyors Association

Experience:
Land Surveying – 28 years
RLS – 13 Years in Arizona

Responsibility: Project Land Surveyor

Rich Stockman has experience in nearly all phases of land surveying in Arizona including boundary, legal descriptions, right of way, construction, ALTA's, topographic and aerial mapping. For this contract he will act as the project land surveyor, setting and controlling aerial targets and performing any other surveying duties on smaller task orders, and reviewing all results and deliverables performed by our subconsultants.

He will also review the results of aerotriangulation, analyze blind check point results after receiving results back from the County, test the DTM and other map check or verification functions, and seal any final mylar plots resulting from work performed under the contract.

Mr. Stockman is also a partner in the firm S&W Land Surveying Services, Inc..

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John W. Cahoon, President, CEO, CP

Stan P. Woessner, Vice President, COO

Richard Delgado, CP - Kenney Aerial Mapping, Inc. – Project Manager

Education:
A.A., 1996, Architectural Drafting/CAD Technologies, High-Tech Institute, Phoenix, AZ
General Studies, Glendale Community College

Professional Registrations:
Certified Photogrammetrist #1273, ASPRS

Professional Affiliations:
Member, American Society for Photogrammetry and Remote Sensing
Member, Arizona Professional Land Surveyors Association

Richard Delgado is our third Certified Photogrammetrist. He holds an A.A.Degree from 1996 in Architectural Drafting/CAD Technologies and is a member of the American Society for Photogrammetry and Remote Sensing and the Arizona Professional Land Surveyors Association.

Mr. Delgado worked with Kenney Aerial Mapping from 1996 to 2002, then worked for a large engineering and surveying firm for five years, where he gained valuable experience in those disciplines. In late 2007 Mr. Delgado returned to Kenney Aerial Mapping with the position of Project Manager.

Experience:
Photogrammetric Mapping: 7
Land Surveying Firms: 5
Total Years in Responsible Charge of Projects: 5

Mr. Delgado has extensive experience in the land surveying and mapping industry, working in Phoenix, AZ since 1996. His expertise includes photogrammetry, specializing in flight planning, aero-triangulation, digital terrain models, planimetric mapping, and orthophotography. He also has extensive experience in various software and CAD applications such as MicroStation, AutoCAD, ArcGIS, LH SocetSet, and Image station Stereo Soft Copy Kit (ISSK). Mr. Delgado is proficient at coordinating and prioritizing projects to successfully meet deadlines, promoting a productive team atmosphere and creating positive client relations through effective communication skills. As a project manager, he is able to work closely with the client and production team to solve technical issues and maintain efficient operation. His depth of understanding is of critical importance in his communications and relations with subcontractors and clients.

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John W. Cahoon, President, CEO, CP

Stan R. Woessner, Vice President, COO

Chuck LeMire - Kenney Aerial Mapping, Inc. – Mapping Department Manager

Experience:
Photogrammetric Mapping With Kenney Aerial Mapping - 10 Years
Mapping Department Manager – 6 Years

Responsibility: Compilation, Cartography, Digital Orthophoto Production

Chuck LeMire has worked at Kenney Aerial Mapping since early 2004. Originally employed as a digital orthohpto technician, Chuck soon mastered the process of editing topographic maps in AutoCAD and the Microstation. He had previous management experience during the course of another career and his tremendous talents for organization soon led to a series of promotions until he became the head of the department.

Mr. LeMire is responsible for assigning projects to our stereo compilers, CAD editors and orthophoto technicians. He also oversees all steps of quality control within the department. One of Chuck's strengths is custom CAD specifications in both AutoCAD and Microstation. He has expertise in City of Phoenix, ADOT, MCDOT and the specific CAD requirements of a variety of private sector engineering firms.

Chuck is also responsible for accurate record keeping, tracking manhours utilized for every project, insuring that schedules and budgets are kept on target and consulting with our project managers to maintain all reporting obligations.

Project Experience: *in addition to most Kenney Aerial Projects listed elsewhere*

Indian Route 20/SR89 Landslide – 2013

Produced a digital elevation model and color digital orthophotography covering 40 miles of rural roadway in approximately 10 working days.

Ak Chin ADMS – 2012

Produced approximately 3.5 square miles of drainage and design quality mapping in agricultural and urban environments to be imported into FLO-2D software.

Sierrita and Twin Buttes Mines – 2010

Produced approximately 120 square miles of open pit mining and heavy industrial mapping in extremely complex terrain.

Kevin Graville
Director of Operations

Overview

Mr. Graville is the Director of Operations for Valley Air Photos. He has been involved with various aspects of company since 1996. He has served as Systems operator, Lab Technician, and Director of Operations since joining the company full time in 2004. He has managed hundreds of projects of various sizes and complexities.

Kevin is a 2004 graduate of LeTourneau University with a B.S. in Aeronautical Science, Business Administratrion. He came on staff full-time as a Project Manager following graduation. In his current role as Director of Operations, Kevin manages the day-to-day operations, is familiar with all projects, and oversees all employees.

He has extensive experience in flight planning, image acquisition, both analog and digital imagery processing, as well as inertial data processing. He is familiar with Aerial Triangulation and Orthorectification techniques, and is working towards certification by ASPRS. Kevin serves as the contact person for our clients.

Current Responsibilities include:

- Overseeing all day-to-day operations – this includes ensuring that client project expectations are successfully delivered. That all projects both analog and digital are moving through our in-house photo lab and meet expected delivery schedules.
- Point of contact – He serves as the point of contact for the majority of our clients and new customers. He works closely with other Valley Air Photos employees to optimize operations.
- Coordinating with clients – providing up-to-date communication on progress of projects. Communicate with field personnel and relay progress information to clients

Certifications
A&P Certificate

Previously Managed Projects:

Portland Metro
2010-2012
The project area had both a 6" GSD resolution urban core and a 12" GSD rural component. The combination of the 2 resulted in a project area covering 3,765 Square miles. This project was flown yearly in the summer leaf on season as well as a leaf off season in 2012.

BLM – Oregon:
Eugene, Medford and Coos Bay Districts
2009-2011
This project required section centered imagery of each of the three management districts. The total project covered 13,800 Square miles with over 17,000 exposures, accompanied by over 50,000 contact prints.

Nathanael Litter
Chief Pilot

Overview

Mr. Litter is the Chief Pilot for Valley Air Photos. He has been employed full-time with the company since 2006. During his employment with VAP, he has logged more than 2,100 hours of aerial photography and acquired more than 100,000 line miles of imagery. He is current in all Valley Air Photos' aircraft and with all sensors/equipment.

He graduated from LeTourneau University with a B.S. in Aeronautical Science in 2004. Before his role as chief pilot, Nathanael served as pilot/systems operator. During this period, he increased his skills and understanding of the acquisition process. He gained skills working with our flight management and planning software, Track Air. He also spent time working with clients to understand their needs and ensure they were getting the results they sought.

Since becoming Chief Pilot, Nathanael has continued to refine his skills and understanding in the field of Aerial Photography. He is proficient operating and troubleshooting all Zeiss Aerial Film Cameras and Microsoft Ultracam Digital Cameras. He also has extensive experience operating Track Air software, Applanix POS-AV software, Microsoft Word/Excel, and Windows OS. Nathanael has received factory training each year on all Zeiss and Track Air equipment.

Current Responsibilities include:

- Managing Flight Department – this includes all pilots/systems operators, aircraft and equipment scheduling, and maintenance tracking. Ensure flight crews are exceeding acquisition standards while meeting project specifications
- Flight Planning – ensuring client needs and project specifications are met. Optimizing planning and providing cost estimates to clients
- Coordinating with clients – providing up-to-date communication on progress of projects. Communicate with field personnel and relay information to flight crews

Quick Facts

Education

B.S. Aeronautical Science
LeTourneau University

Certifications

Commercial Pilot
Instrument Rated
Multi-Engine Rated
A&P Certificate
Advanced Ground Instructor Certificate
Hi-Performance Endorsement
Tail-Wheel Endorsement
Hi-Altitude Endorsement
2nd Class Medical – No Restrictions

Previous Projects:

San Juan National Forest, Colorado – USDA APFO
2011
He was Responsible for planning and acquisition of 3272 sq. miles – approximately 5400 images over this rugged terrain.

Imperial and San Luis Obispo Counties, California
2011
He was responsible for planning and coordinating acquisition of both Counties, totaling over 9,000 Sq Miles. Extensive coordination with restricted military airspace was required for the acquisition of imagery within the Yuma Proving grounds located over Imperial County.

INFORMAL REQUEST FOR QUALIFICATIONS #020714
BUCKHEAD MESA MAPPING

PROPOSAL SIGNATURE

The Firm submitting the proposal certifies that the proposal is genuine, and is not in any way collusive or a sham; that the proposal is not made with the intent to restrict or prohibit competition; that the Firm submitting the proposal has not revealed the contents of the proposal to, or in any way colluded with, any other Firm which may compete for the contract; and that no other Firm which may compete for the contract has revealed the contents of a proposal to, or in any way colluded with, the Firm submitting this proposal.

Firm Submitting Proposal:

Kenney Aerial Mapping Inc.
Company Name

4008 North 15th Avenue
Address

Phoenix AZ 85015
City State Zip

John Cahoon
Signature of Authorized Person

John Cahoon
Printed Name

President
Title

Proposal must be signed by a duly authorized individual(s) eligible to sign contract documents for the Firm.

For clarification of this proposal, contact:

Name: John Cahoon Phone No.: 602-258-6471

All procurement activities conducted by Gila County are in conformance with the rules and regulations of Gila County procurement code. A copy of the Code is available for review in the office of the Clerk of the Board, Gila County Courthouse 1400 East Ash Street, Globe, AZ.