



STATE OF MISSOURI
OFFICE OF ADMINISTRATION
DIVISION OF PURCHASING AND MATERIALS MANAGEMENT

NOTIFICATION OF STATEWIDE CONTRACT

August 11, 2015

TITLE: Photogrammetric Products and Services

CURRENT CONTRACT PERIOD: June 17, 2016 through June 16, 2016

BUYER: Earl Pettit
(573) 751-5430
Earl.Pettit@oa.mo.gov

RENEWAL INFORMATION	Original Contract Period	Potential Final Expiration
	June 17, 2013 through June 16, 2014	June 16, 2016

ALL PURCHASES MADE UNDER THIS CONTRACT MUST BE FOR **PUBLIC USE ONLY**.
PURCHASES FOR PERSONAL USE BY PUBLIC EMPLOYEES OR OFFICIALS ARE PROHIBITED.

THE USE OF THIS CONTRACT IS **NOT MANDATORY**.

This contract has been established for the convenience of state agencies. Local Purchase Authority may be used to purchase supplies/services included in this contract from an alternative source at the discretion of the agency.

Instructions for use of this contract, specifications, and requirements are attached.

The entire contract document may be viewed and printed from the Division of Purchasing & Materials Management's **Awarded Bid & Contract Document Search** located on the Internet at
<http://www.oa.mo.gov/purch>.

AWARD INFORMATION BEGINS ON NEXT PAGE

CONTRACT NUMBER	VENDOR NUMBER	VENDOR INFORMATION	MBE/ WBE	COOP PROCURE -MENT
C213036001	4306906410 1	Surdex Corporation Contact: Tim Donze Address: 520 Spirit of St. Louis Blvd. Chesterfield, MO 63005 Phone: (636) 368-4424 Office Direct (314) 422 7616 Cell Phone (636) 368-4400 Surdex Main Line e-mail: TimD@Surdex.com	MBE 10% (David Mason and Associates) WBE 5% (EFK Moen, LLC)	YES
C213036002	3911331810 1	Quantum Spatial, Inc. Contact: Clifford F. Mefford, RPP, CP Account Manager Address: P.O. Box 700364 Tulsa, OK 74170 Phone: 918-398-4477 Email: cmefford@quantumspatial.com	MBE 5% (David Mason and Associates) MBE 3% (Schmitz, King and Associates)	YES
C213036003	2013914060 1	Woolpert, Inc. Contact: Brad Fugate, CP Address: 4454 Idea Center Boulevard Dayton, OH 45430-1500 Phone: 937.531.1349 Office: 937.461.5660 Fax: 937.461.0743 Mobile: 937.499.4035 Email: brad.fugate@woolpert.com	NO	YES
C213036004	5219310660 0	Fugro EarthData, Inc. Contact: Keith Owens Address: 7320 Executive Way Frederick, MD 21704 Phone: (301) 948-8550 x119 Mobile: (240) 409-5062 Email: kowens@fugro.com	MBE 4% (David Mason and Associates)	YES

STATEWIDE CONTRACT HISTORY

The following summarizes actions related to this Notification of Statewide Contract since its initial issuance. Any and all revisions have been incorporated into the attached document.

Contract Period	Issue Date	Summary of Changes
06/17/15 – 06/16/16	8/11/15	Renewed C213036001 (Surdex), C213036002 (Quantum Spatial), C213036003 (Woolpert), and C213036004 (Fugro EarthData). Users of this statewide contract <u>must</u> contact all 4 vendors when requesting project pricing.
06/17/14 – 06/16/15	2/27/15	C213036002 assigned to Quantum Spatial, Inc. New contact information provided on page 2 of this document.
06/17/14 – 06/16/15	08/28/14	Renewed C213036001 (Surdex), C213036003 (Woolpert), and C213036004 (Fugro EarthData). Renewal of C213036002 (AeroMetric/Quantum Spatial) in progress, working on assignment of contract. Users of this statewide contract <u>must</u> contact all 4 vendors when requesting project pricing; however, awards may not be made to Quantum Spatial until the pending contract assignment is complete. Please call Earl Pettit (DPMM Buyer) with any questions.
06/17/13 – 06/16/14	07/19/13	Corrected MBE/WBE information and corrected notation for Woolpert regarding agreement to cooperative procurement.
06/17/13 – 06/16/14	06/17/13	Initial issuance of contracts.

1. Functional and Technical Specification and Performance Requirements

1.1 General Requirements

- 1.1.1 The resulting contracts are for potential future acquisitions by state agencies of photogrammetric mapping products and services on an as needed, when needed basis, at the sole discretion of the state agencies. The contractor shall conduct all contract responsibilities consistent with this purpose.
- 1.1.2 The State of Missouri does not guarantee any usage of the contract whatsoever. Any state agency or local government of the State of Missouri may participate in the contract, but the contract does not require mandatory participation by any government agency or entity. The contract shall not be construed as an exclusive arrangement. If it is in the best interest of the State of Missouri, any state agency or other authorized user of the contract may, at its own discretion obtain alternate services elsewhere.
- 1.1.3 Exhibit A represents a list of the types of photogrammetric products/services that may be ordered by users of the contract.
 - a. The list in Exhibit A shall not be considered all inclusive. The State of Missouri reserves the right to add related photogrammetric mapping products and services if necessary
- 1.1.4 The contractor must utilize an American Society of Photogrammetry and Remote Sensing (ASPRS) certified Photogrammetrist as their Project Manager.
- 1.1.5 The RFP requirements do not contemplate services that would require prevailing wage determinations or utilization of professional land surveyors as defined in RSMo Section 327.272.
 - a. The contractor shall not perform any services requiring payment of prevailing wage pursuant to section 290.250, RSMo. At any time during the effective period of the contract, if any requested or required services would involve prevailing wage, the contractor shall not perform the service and shall notify the

state agency in writing of the reason. In such event, the State of Missouri shall obtain the needed services through alternative means in accordance with state laws and regulations.

- b. The contractor shall not perform any services requiring utilization of a professional land surveyor as defined in RSMo Section 327.272. The contractor's ground control surveyors performing work under this contract shall not be required to establish land boundary lines which would affect real property rights. At any time during the effective period of the contract, if any requested or required services would require utilization of a professional land surveyor, the contractor shall not perform the service and shall notify the state agency in writing of the reason. In such event, the State of Missouri shall obtain the needed services through alternative means in accordance with state law and regulations.

1.1.6 The contractor shall not provide raw or processed imagery or metadata obtained or created in performance of work related to this contract to any facility or individual located outside the United States.

1.1.7 The contractor shall not utilize individuals or facilities located outside the United States to perform services related to this contract.

1.2 Agency Determination for Award for Specific Projects:

1.2.1 At the time a state agency determines a need for photogrammetric mapping products or services, all qualified providers will be contacted to submit a firm, fixed price and performance proposal via the Project Assessment Quotation (PAQ) process for the state agency's specific purchase. The state agency will choose the "lowest and best" among the qualified providers at the time each photogrammetric mapping product or service is needed. The contractor shall be obligated to submit their firm, fixed price within 10 days after the state agency contacts the contractor for a quote.

- a. The state agency shall have the right to reject a PAQ proposal for a product/service due to, but not limited to: proposed method, availability, delivery time, etc.

1.2.2 If the unit of measure specified by the state agency is different than the manner in which the provider offers the product/service, then the unit of measure being proposed by the provider must be clearly identified in the provider's price quote. A unit price conversion will be done, by the state agency at the time of quotation, to fairly evaluate proposed prices.

1.2.3 The following evaluation point formula shall apply to determine cost evaluation points for each specific purchase:

<u>Lowest Responsive Contractor's Price</u> Compared Contractor's Price	x	100 Maximum Cost Evaluation Points	=	Awarded Cost Evaluation Points
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1.3 Subjective Evaluation of PAQ Response

1.3.1 For each PAQ response received, the state agency shall conduct a subjective analysis in conducting a comparative assessment of the PAQ responses and shall subjectively assign a point value of up to 100 points for the subjective portion of the evaluation. The agency shall document in writing their evaluation justification regarding their assignment of points.

1.4 Project Award:

1.4.1 For each PAQ response, the state agency shall total (1) the cost points derived from the cost analysis described in RFP Section 3 and (2) the subjective evaluation score ("best" score) awarded during the PAQ response evaluation process. The responsive contractor with the highest total points shall be awarded the specific photogrammetric products/services project described in the PAQ request and accepted PAQ response.

1.5 General Requirements Applicable to All Deliverables

- 1.5.1 All deliverables acquired via this contract, including but not limited to: imagery, elevation models, terrain models, metadata, etc. shall be the joint property of the State of Missouri and any authorized user of the contract, without restriction, when a state agency contributes funds toward acquisition of a deliverable or when a user of the contract realizes cost savings through the use of buy-up provisions of this contract. All such deliverables shall be deemed to be in the public domain. One example of this situation would be when a state agency orders a flight for 2-foot orthoimagery and an entity eligible to use the cooperative procurement program pays the required fee for a buy-up to obtain 6-inch imagery from the same flight. In this scenario, the state agency and the entity using the cooperative procurement program would jointly own the product delivered by the contractor.
- a. All deliverables acquired via this contract, including but not limited to: imagery, elevation models, terrain models, metadata, etc. shall be the sole property of the public entity acquiring the product when the public entity acquires products without use of state agency funds and without realizing a cost savings due to use of this contract. Such deliverables shall not be considered to be in the public domain. An example of this situation would be when an entity other than a state agency uses the contract to procure imagery and pays for the entire cost of the project with no funding provided by a state agency. In this scenario, the imagery would be owned solely by the entity placing the order and paying for the deliverable.
- 1.5.2 All deliverables shall be made on mutually agreed upon media such as a portable hard drive. Interim, verification imagery may be verified by on-line verification tools. Partial deliveries may be made on DVD as appropriate. The agencies may supply their own hard drives for all deliveries.

1.6 Specific Performance Requirements for Digital Orthoimagery:

- 1.6.1 The contractor shall provide complete, true color, CIR, or 4-band near infrared, leaf-off digital orthoimagery services and metadata for one, some, or all of the Missouri counties listed in Attachment 1 upon request of the state agency or other authorized user of the contract.
- a. The leaf-off flying season for Missouri shall be considered as the period February 15th through May 15th. All leaf off imagery must be acquired during this period unless otherwise approved, in writing, by the Director of the Office of Geospatial Information or his/her designee.
- b. All imagery shall be two-foot pixel resolution meeting the American Society for Photogrammetry and Remote Sensing (ASPRS) Accuracy Standards at 1" = 400' scale, unless a higher resolution is specified by the state agency.
- c. The contractor must deliver full tiles for all imagery of areas on and within the State of Missouri's borders.
- i. Requirements regarding full/partial tiles for imagery that includes areas outside the State of Missouri's borders shall be addressed in the state agency's Project Assessment Quotation request (See RFP section 3.11)
- d. Survey control used by the contractor shall be considered part of the deliverable product. All survey control performed by the contractor must be done by a surveyor registered in the State of Missouri. The contractor shall be responsible for providing surveyors when needed to meet the requirements of a project.
- e. All metadata records, including those from any buy-ups, shall become part of the State Clearinghouse hosted by the Missouri Spatial Data Information Service (MSDIS).

- f. The contractor must provide the actual dates that imagery was collected. This information must be incorporated in the metadata and may also be supplied in a separate shapefile or geodatabase for incorporation into mapping systems.
- 1.6.2 It is highly desirable that the contractor uses a digital sensor camera to acquire the imagery; however, it is permissible to utilize an analog (film) camera for smaller areas of higher resolution based on the contractor's best judgment and subject to the state agency's approval. Mixing of digital and analog cameras at the same resolution (e.g. 2-foot) shall not be acceptable.
- a. If digital sensors are utilized by the contractor, the digital sensors should be of the same type or model to ensure continuous coverage as required by the specifications contained in this document.
- 1.6.3 The State of Missouri has 10 meter Digital Elevation Model (DEM) coverage that shall be provided for use by the contractor. In addition, LiDAR data for select areas is available through MSDIS to supplement the elevation base. The contractor shall collect additional elevation data, at no charge to the State of Missouri, where required to prepare digital imagery that meet the requirements contained in this document.
- a. The contractor shall ensure all bridges and highway overpasses are in the correct position on each tile delivered.
 - b. The contractor shall ensure all divided highways in the coverage area are properly controlled to eliminate wavy linear features on the tile.
- 1.6.4 The contractor shall deliver imagery tiles meeting all mandatory requirements, specifications, and guidelines of the Digital Orthoimagery, FGDC-STD-014.2-2008: http://www.fgdc.gov/standards/projects/FGDC-standards-projects/framework-data-standard/GI_FrameworkDataStandard_Part2_DigitalOrthoimagery.pdf

1.7 Specific Performance Requirements for LiDAR Acquisition:

- 1.7.1 Unless specified otherwise in a state agency Project Assessment Quotation (PAQ) request, the contractor shall deliver LiDAR imagery meeting all mandatory requirements, specifications, and guidelines of the National Geospatial Program LiDAR Guidelines and Base Specification Version 1: <http://pubs.usgs.gov/tm/11b4/TM11-B4.pdf>
- 1.7.2 LiDAR data shall be collected using a fully calibrated system capable of collecting multiple echoes per pulse with a minimum of a first, last, and one intermediate return. The system must also be able to collect the intensity (LiDAR pulse signal strength) for each return signal.
- 1.7.3 Quality Assurance and Quality Control
- a. Two copies of an accuracy report shall be produced by the contractor. A survey narrative shall be produced in the form of a letter type report detailing all aspects of the LIDAR flight, including a description of the fieldwork and detailed office data processing procedures. The description shall include location, navigation and control, operations, all survey logs and data sheets used or acquired under this task order, any difficulties encountered, (including discrepancies with maps, etc.) and how they were resolved shall be documented. The contractor shall provide an interpretation and analysis of the results of the survey, including data quality, coverage of the area, and a summary of the findings. This summary shall be included in the transmittal letter documenting the electronic data delivered as a result of the survey.
 - b. A Quality Control plan shall be implemented by a person assigned within the contractor's organization who must be present during the times work is in progress, and who shall be responsible for assuring that all documents on the project have been coordinated. This individual shall possess extensive, verifiable LIDAR and photogrammetric experience. The contractor shall notify the state agency, in writing, of the name of the individual and the name of an alternate person assigned to the position.

- c. The Quality Control plan shall provide and maintain an effective quality control program that will assure that all services required by this task order are performed and provided in a manner that meets professional architectural and engineering quality standards. As a minimum, competent, independent reviewers shall technically review all documents. Performance of the independent technical review (ITR) should not be accomplished by the same element that produced the product. The contractor shall provide and maintain an effective quality control program that will assure that all services required by this task order are performed and provided in a manner that meets professional mapping quality standards.

1.7.4 Metadata and Reports for LiDAR

- a. Metadata compliant with the Federal Geographic Data Committee's (FGDC) Content Standard for Digital Geospatial Metadata is required in extensible markup language (.xml) format. Metadata must be created on a sub-project tile level for each product deliverable.
- b. Metadata shall include as a minimum the following sections:
 - i. Identification Information
 - ii. Data quality information (this section will be updated after the quantitative assessment) and must include all process steps.
 - iii. Spatial Data Organization Information
 - iv. Spatial Reference Information
 - v. Entity and Attribute Information
 - vi. Metadata Reference Information
- c. Metadata fields shall also include as a minimum:
 - i. Date of acquisitions
 - ii. System type and system collection parameters (flying height, Scan FOV full angle, pulse rate, scanner frequency, side-lap percentage, point density, etc.)
 - iii. Nominal point density
 - iv. Calibration procedures
 - v. Base station control information
- d. Metadata shall be supplemented with projects reports where the report conveys additional information not suitable for metadata. If surveying to establish new stations was performed, a survey report that includes the following information must be provided by the contractor:
 - i. Collection Report (detailing mission planning and flight logs)
 - ii. Survey Report (detailing the collection of control and reference points used for calibration and QA/QC).
 - iii. Processing Report (detailing calibration, classification, and product generation procedures)
 - iv. QA/QC Reports (detailing the analysis, accuracy assessment and validation of:
 - v. The point data (absolute, within swath, and between swath)
 - v).1 The bare-earth surface (absolute)
 - v).2 Other optional deliverables as appropriate
 - v).3 Control and Calibration points: All control and reference points used to calibrate, control, process, and validate the lidar point data or any derivative products are to be delivered.
 - v).4 Geo-referenced, digital spatial representation of the extents of each delivered dataset. Polygon shapefile is preferred.
 - v).5 Deliverables metadata (FGDC compliant, XML format metadata). One file for each:
 - v).5.1 County

v).5.2 Lift

v).5.3 Tiled deliverable product group (classified point data, bare-earth DEMs)

Note: Metadata files for individual tiles are not required.

1.8 Specific Performance Requirements for Digital Elevation Models (DEM):

- 1.8.1 Unless specified otherwise in a state agency Project Assessment Quotation (PAQ) request, the contractor shall deliver DEM/DTM meeting all mandatory requirements, specifications, and guidelines of the National Geospatial Program LiDAR Guidelines and Base Specification Version 1: <http://pubs.usgs.gov/tm/11b4/TM11-B4.pdf>.

1.9 Specific Performance Requirements for Contour Creation:

- 1.9.1 The contractor shall develop contours that are certified to meet or exceed American Society for Photogrammetry and Remote Sensing (ASPRS) Accuracy Standards at the purchaser's requested scale. Contours must be delivered in the format approved by the ordering agency.
- a. Unless specified otherwise in a state agency Project Assessment Quotation (PAQ) request, the contractor shall deliver contour derived from DEM/DTM meeting all mandatory requirements, specifications, and guidelines of the National Geospatial Program LiDAR Guidelines and Base Specification Version 1.

1.10 Specific Performance Requirements for Planimetric Mapping:

- 1.10.1 The planimetric mapping task shall compile hydrographic and impervious features, using analytical stereo photogrammetric methods that meet ASPRS Class 1 accuracy standards at the ordering agency's requested scale.
- 1.10.2 The contractor shall compile any-and-or-all planimetric layers listed in Table 1 below as specified by the ordering agency.
- 1.10.3 If more than one line feature is coincident with another line feature, the contractor shall compile features as coincident lines.
- 1.10.4 All point, line, and polygon features shall be constructed as topologically correct geometries in ESRI geodatabase, DGN, DWG or other format that will allow the ordering agency to easily integrate the layers with existing GIS layers.
- 1.10.5 All feature layers listed in Table 1 below must be delivered as separate layers. A tiling system approved by the ordering agency may be used to facilitate the pilot area map and check plot production.
- a. The ordering agency reserves the right to request alternative deliverable options for the purpose of reducing cost, including limited data collection to collection of changed features only, mapping a reduced set of features, etc.

Table 1			
Description	Sub_Type	Feature Type	Comments
Buildings Features			
Buildings General	BLDG_GEN	Polygon	All residential, commercial, industrial and institutional
Out Buildings	BLDG_OUT	Polygon	Out buildings such as sheds, detached garages, carports, etc.

Mobile Homes	BLDG_MH	Polygon	All visible mobile homes
Swimming Pools	BLDG_POOL	Polygon	All visible pools; Must contain field to discern above ground vs. in-ground
Docks and Piers	DOCKS	Polygon	All visible docks/piers
Foundations	BLDG_FDN	Polygon	All visible foundations and ruins
Decks and Porches	BLDG_DECK BLDG_PORCH	Polygon	All visible decks/porches
Canopies	BLDG_CANOPY	Polygon	All visible canopies
Tanks	BLDG_TANK	Polygon	All water, gas, and other tanks
Hydrographic Features			
Rivers	HYDRO_RIVER	Line/Polygon	Collect all rivers
Streams and Brooks	HYDRO_STREAM	Line/Polygon	All visible streams and brooks
Ponds and Lakes	HYDRO_LAKE	Polygon	Closed, permanent bodies of water

Table 1 continued on next page

Table 1 (continued)			
Description	Sub_Type	Feature Type	Comments
Intermittent Streams	HYDRO_STREAM_INT	Line	Visible intermittent streams
Transportation Features			
Street and Pavement Edge	RD_EDGE_PAVED RD_EDGE-UNPAVED RD_PAVED RD_UNPAVED	Line Line Polygon Polygon	All paved and unpaved edges of street pavement including alleys. Pavement edges must be continuous and should not break at driveways, parking lots, or other features.
Curb Lines	RD_CURB	Line	All curb lines. Lines must be continuous and should not break at driveways, etc.
Sidewalk-Public	RD_SDWLK	Polygon	Front and Back of sidewalk. If front of sidewalk is coincident with curb or road features, road features take a precedent.
Parking Areas	PARKING_PAVED PARKING_UNPAVED	Polygon	Identify all areas having more than 5 parking spaces. Attribute table must have a field to discern Paved vs. Unpaved.
Driveways	BRIVE_PAVED DRIVE_UNPAVED	Polygon	Identify all public and private driveways. Attribute table must have a field to discern paved vs. unpaved.
Airport	AIRPORT	Polygon	Concord Airport paved area.

1.11 Buy-Up Deliverables:

- 1.11.1 The contractor shall be required to provide the products and/or services described herein; however, it shall be the agency's sole discretion to acquire such products/services.
- 1.11.2 If requested by a state agency, the contractor shall deliver imagery that may be used for stereo coverage of a specified project area.
- 1.11.3 Buy-ups shall be defined as improvements over the standard base product (2-ft leaf-off True Color /CIR) that may be purchased by a state agency.
 - a. If requested by a state agency, the contractor shall deliver one-foot pixel resolution imagery meeting the requirements contained in the Performance Requirements section of the contract (except as noted below) in the Missouri State Plane projection.
 - i. The one-foot imagery shall meet the accuracy specifications for 1"=400' mapping with a RMSE of 8.0 feet using ASPRS Accuracy Standard for Large Scale Maps, Class 1 Map Accuracy.
 - ii. File naming for higher resolution buy up areas shall be determined by the requesting agency or organization.
 - b. If requested by a state agency, the contractor shall deliver six-inch pixel resolution imagery meeting the requirements contained in the Performance Requirements section of this contract (except as noted below) in the Missouri State Plane projection.
 - i. The six-inch imagery shall meet accuracy specifications for 1"=100' mapping with a RMSE of 2.0 feet using ASPRS Accuracy Standard for Large Scale Maps, Class 1 Map Accuracy.
 - ii. File naming for higher resolution buy up areas shall be determined by the requesting agency.

- c. If requested by a state agency, the contractor shall deliver three-inch pixel resolution imagery meeting the requirements contained in the Performance Requirements section of the contract (except as noted below) in the Missouri State Plane projection.
 - i. The three-inch imagery shall meet accuracy specifications for 1"=25' mapping with a RMSE of 0.5 feet using ASPRS Accuracy Standard for Large Scale Maps, Class 1 Map Accuracy.
 - ii. File naming for higher resolution buy up areas shall be determined by the requesting agency or organization.

1.11.4 Improved Elevation Data: If requested by a state agency, the contractor shall deliver any improved elevation model information collected for the buy-up project area. Any such adjusted elevation models delivered shall be public domain. If specified in the ordering entity's Project Assessment Quotation (PAQ) request, the contractor shall provide an elevation model with the level of detail required for submission to the USGS National Elevation Dataset. At the sole option of the ordering entity, the ordering entity shall be responsible for submission of the elevation model to the USGS National Elevation Dataset as well as to the Missouri Spatial Data Information Service. The contractor shall not be required to submit elevation models to the USGS National Elevation Dataset and the Missouri Spatial Data Information Service.

1.12 Reporting Requirements:

1.12.1 The contractor must submit semi-annual reports to the Director of the Office of Geospatial Information (OGI) or his/her designee for all services provided under the contract. The OGI reserves the right to request reports more frequently if deemed necessary by the OGI.

a. At a minimum, the semi-annual reports must include:

- i. The state agency name for which products/services were provided;
- ii. A description of each product/service provided;
- iii. The cost of the product/service provided; and
- iv. The date the product/service was provided.

1.12.2 The contractor must submit annual reports to the Division of Purchasing and Materials Management (DPMM) for all services provided under the contract. The DPMM reserves the right to request reports more frequently if deemed necessary by the DPMM.

a. At a minimum, the annual reports must include:

- i. The state agency name for which products/services were provided;
- ii. A description of each product/service provided;
- iii. The cost of the product/service provided; and
- iv. The date the product/service was provided.

1.12.3 The contractor must submit annual reports to each state agency listing the services provided under the contract for the individual state agency. The state agency reserves the right to request reports more frequently if deemed necessary by the state agency.

b. At a minimum, the annual reports must include:

- i. The state agency name for which products/services were provided;
- ii. A description of each product/service provided;
- iii. The cost of the product/service provided; and
- iv. The date the product/service was provided.

1.12.4 The contractor must submit the reports electronically, in an analysis-ready format specified by the state agency, such as Microsoft Excel or Access. Reports in PDF or similar format shall be considered unacceptable unless specifically requested by or approved by the ordering agency.

- 1.12.5 The contractor shall retain, and make available to the State of Missouri, all books, records, and other documents relevant to the contract for a period of two (2) years after final payment or the completion of an independent audit, whichever is later. If any litigation, claim, negotiation, audit, or other actions involving the records has been started before the expiration of the (2) year period, the contractor shall retain such records until completion of the action and resolution of all issues which arise from it, or until the end of the regular (2) year period, whichever is later. The contractor shall allow authorized representatives of the State of Missouri and federal government to inspect these records upon request.

1.13 Performance Monitoring:

- 1.13.1 Performance of all contractors shall be monitored by the State of Missouri. Contractors with inadequate performance shall be informed by the DPMM of such performance issues, asked to implement corrective actions and may be required to submit a written corrective action plan response to the DPMM. The State reserves the right to cancel contracts if the State determines that a contractor(s) continues to demonstrate inadequate performance and shows no sign of improvement in their performance of their contract obligations. Contractor's inadequate performance on projects may also negatively affect future evaluation considerations for other state projects.

1.14 Project Assessment Quotation:

- 1.14.1 Project Assessment Quotations: On all photogrammetric products and services projects, the state agency shall utilize the Project Assessment Quotation (PAQ) process as a means to (1) competitively bid a specific photogrammetric mapping product and services project, (2) to identify the specific tasks to be performed and (3) to establish the total firm, fixed price to be paid to the awarded contractor upon completion of the specified tasks. The PAQ process shall occur in a controlled sequence of proposals and approvals by the agency's designated Project Manager as outlined below.

- a. State agencies may decide to break up projects into multiple PAQs. In that event, subsequent PAQs may be issued to the contractor that was awarded the initial PAQ without requesting competitive PAQs provided (1) the agency clearly indicates their intent to do so in the initial PAQ request and (2) the scope of the entire project is considered in the evaluation of the initial PAQ.

- 1.14.2 The general protocol for PAQ workflow shall be as described below:

a. **STEP 1: PAQ REQUEST**

The agency's designated Project Manager will present a written request for each PAQ to all contractors on the QPL for the photogrammetric mapping product and services required, in a standard format. The agency's request must explain the scope of the project and the tasks the agency desires the contractor to perform, including applicable business and technical specifications. In addition, the agency shall specify the evaluation criteria that shall be utilized to determine the PAQ award. The agency's PAQ Request should include at a minimum the following information:

- i. **Introduction/Overview:** Brief description of the project. Information provided to acquaint the reader with the planned acquisition. In addition, the following information shall be provided:
- state agency name/address
 - state agency designated Project Manager name, email, and phone number
 - brief title of specific PAQ project
 - PAQ issue date
 - PAQ Response Due Date
- ii. **Background:** A description of how the project came to be. A description of why the project is being pursued and how it relates to other projects. Summarization of any statutory authority

or regulations affecting the overall requirement; and identify any background materials attached to the PAQ.

- iii. **Objectives:** Specific objectives that the PAQ project will achieve. This section should provide a concise overview of the contract effort goals and objectives; and how the results or end products will be used.
- iv. **Requirements/Tasks:** Listing of specifications/performance requirements, standards, locations, tasks, deliverables, schedule, and assumptions. This section defines the tasks that the contractor must complete for the PAQ project. This section should provide a detailed itemization and description of all of the project tasks which shall be completed by the contractor (i.e. project work), including requirements for and specified frequency of any required status reports; the specified project tasks must be clearly stated and must be quantifiable.
- v. **Deliverables:** This section should clearly state what the contractor must deliver. If different tasks have different delivery requirements, they must be clearly identified along with times within which the contractor must deliver. A description of the acceptance criteria as well as what documentation the contractor must obtain from the agency to verify the agency's receipt and approval of the deliverable work product.
- vi. **Government Furnished Property:** This section should identify any government-furnished property provided to the contractor such as DEM, specific data/information, etc.

b. **STEP 2: PAQ RESPONSE**

The contractor must respond within ten days to each PAQ request from the agency's designated Project Manager with a PAQ Response which provides a statement of firm, fixed cost for the project, and technical/service solution to fulfill the PAQ Request. The contractor's PAQ Response should include at a minimum the following:

- i. **Project Overview:** Statement of the contractor's understanding of the photogrammetric mapping project and the technical needs of the project.
- ii. **Resources:** A description of the contractor's resources that shall be provided to fulfill the PAQ project to include but not limited to: human resources to be provided, facility/supply resources, aircraft and other equipment availability, etc. A description of the minimum qualifications for an individual with a human resource job classification category outlining the skills, experience and knowledge/education of the staff being offered for the PAQ project.
- iii. **Approach/Methodology:** A description of how the contractor will specifically go about completion of the work for the photogrammetric mapping project. This description should include:
 - Project Management Plan, project tracking and reporting the progress of the project, etc.
 - Functional definition of requirements that outlines how the services and/or products shall be provided by the contractor. This description should describe how the requirements/specifications will be fulfilled by the proposed service offerings and to what degree the requirements are met and/or exceeded. This description should also include by whom, when, with what, why, where, etc., the requirements will be satisfied by the contractor's proposed solution for the PAQ project.
 - Change Control Plan,
 - Issue Tracking Plan,

- Assumptions, and
 - Quality Assurance (QA) Plan: A description should be included of the contractor's QA process to be utilized for the project tasks, schedule, deliverables, and testing in order to ensure that work related to the production of acceptable deliverables is on track and expectations are met or exceeded. The QA process is expected to be proactive to ensure not only that the schedule is met, but also that product and service quality is maintained.
- iv. **Cost Response:** Firm, fixed price(s) per deliverable to fulfill the photogrammetric mapping project defined in the PAQ. All travel-related expenses must be included within the firm, fixed deliverable price. No separate or additional reimbursement shall be made for travel related expenses.
- The firm, fixed price stated in the awarded PAQ Response shall not be increased unless the state agency requests a corresponding increase in the scope of work under the PAQ. In other words, if the contractor underestimates the level of effort in terms of personnel resources, equipment, fuel, etc., the contractor shall not charge the state more than the total firm, fixed price for all deliverables unless the state later amends the PAQ to increase the scope of work. If the scope of work does not increase, the contractor shall complete all work agreed upon in the awarded PAQ at the firm, fixed total price stated in the PAQ Response. Federally funded projects may require added levels of PAQ cost response detail such as delineation of hourly rates and the number of hours used to derive the firm, fixed PAQ project cost(s).
 - Unless stated in the PAQ Response, the state shall assume absolutely no other costs exist to satisfy the PAQ's requirements. Therefore, the awarded PAQ contractor shall be responsible for any additional costs.
 - PAQ pricing shall be based on specific deliverable components of the project and shall not be based on monthly billing. If the contractor fails to deliver all the products/services specified in the PAQ for a given deliverable then payment for the deliverable shall be withheld until the deliverable has been provided to and accepted by the agency. Payment shall not be made in advance for any deliverable; all payments shall be made in arrears (i.e., upon delivery and acceptance of a deliverable).
- c. **STEP 3: EVALUATION OF PAQ RESPONSES**
Each competitive PAQ shall be evaluated based on a 200 evaluation point scale with the cost analysis representing 50% of the evaluation points. The agency shall document in writing their evaluation justification regarding their award determination.
- d. **STEP 4: APPROVAL AND AWARD OF PAQ**
The awarded contractor and the agency's designated Project Manager must indicate mutual acceptance of the PAQ project by signing and dating the PAQ Response document. The agency's designated Project Manager (1) must retain one signed copy; (2) must forward a copy of the awarded PAQ and PAQ Response Abstract (i.e., a written document that indicates whether or not a contractor submitted a PAQ response) to the Division of Purchasing and Materials Management for inclusion in the contract file; (3) must send one copy of the signed and awarded PAQ to the contractor awardee; and (4) must inform all responding contractors as to who received the award.
- e. **STEP 5: AUTHORIZATION TO PROCEED/ PAQ PROJECT WORK**
An approved awarded PAQ alone does not constitute an authorization to proceed with project work. In accordance with paragraph 9c of the attached Terms and Conditions Request for Proposal, before providing work on any project, the contractor must receive a properly authorized Purchase Order

except the state agency may authorize an obligation of less than \$3,000.00 pursuant to the terms of the contract without the official encumbrance of funds (i.e. without the issuance of a properly authorized Purchase Order). Project work shall include the contractor's completion of the tasks identified in the awarded PAQ.

f. **STEP 6: FORMAL ACCEPTANCE**

Upon the completion of all project work of a given PAQ, the contractor must notify the agency's designated Project Manager in writing and shall submit an invoice in accordance with the PAQ deliverable compensation requirements as described in the awarded PAQ document. The agency's designated Project Manager shall review, approve, and formally accept or reject the components of the PAQ project work in accordance with the turnaround time outlined in the PAQ. Formal acceptance shall not be unreasonably delayed or withheld by the state.

g. **STEP 7: COST RECOVERY FOR CONTRACTOR**

Project costs for the PAQ project work shall be reimbursable upon formal acceptance by the agency's designated Project Manager in accordance with the deliverables for compensation outlined in the PAQ.

h. **GENERAL PAQ REQUIREMENTS**

- i. The contractor shall submit PAQ Responses in a timely manner in accordance with the state agency's prescribed number of days for the contractor to submit the PAQ Response.

Prior to the PAQ Response Due Date, it shall be the contractor's responsibility to ask questions, request changes or clarification, or otherwise advise the requesting state agency if any language, specifications or requirements of the PAQ appear to be ambiguous, contradictory, and/or arbitrary, or appear to inadvertently restrict or limit the requirements stated in the PAQ to a single source. Any and all communication from contractors regarding specifications, requirements, competitive PAQ process, etc., must be directed to the state agency contact listed on the PAQ Request document.

- ii. The requesting state agency reserves the right to officially amend or cancel a PAQ after issuance. The state agency shall notify all contractors of any amendment or cancellation.
- iii. The agency's designated Project Manager reserves the right to reject any contractor-submitted PAQ that is non-compliant with the PAQ's mandatory requirements.
- iv. The contractor shall not be paid for the preparation of the PAQ Response.
- v. A PAQ Request, PAQ Response, and the contractor's project work must be within the scope of the performance requirements identified in the contract, which the contractor was awarded and must not change any provision of the contract.
- vi. Any changes to the PAQ, after the state's acceptance of the PAQ, must be formalized in writing as an official revision to the awarded PAQ. The format of PAQ revisions shall be consistent with the format of the awarded PAQ as outlined above, including the distribution of the original to the Division of Purchasing and Materials Management, a copy to the contractor and retaining a copy for the agency's designated Project Manager.
- vii. The agency's designated Project Manager shall have the right to terminate the PAQ at any time, for the convenience of the agency, without penalty or recourse, by giving written notice to the contractor at least ten (10) business days prior to the effective date of such termination. In the event of termination pursuant to this paragraph, all photogrammetric products, documents, data, reports, and accomplishments prepared, furnished or completed by the contractor pursuant to the terms of the contract shall, at the option of the agency's designated

Project Manager become the property of the State of Missouri. The contractor shall be entitled to receive compensation for that work completed and accepted by the State pursuant to the PAQ prior to the effective date of termination.

viii. The duration of any PAQ must not exceed the effective contract period. However, if valid renewal options remain in the contract, the state agency may allow the PAQ to continue contingent upon the DPMM exercising the available renewal option.

ix. Project Assessment Quotation Invoicing: The contractor shall submit an invoice to the agency within thirty (30) calendar days after completion of and in accordance with the mutually agreed upon deliverables for compensation for the contractor's project work (as specified in applicable Project Assessment Quotation).

1.15 Other Requirements:

1.15.1 Single Point of Contact: The contractor must function as the single point of contact for the state, regardless of any subcontract arrangements for all products and services. This shall include assuming responsibility and liabilities for all problems relating to all hardware, software and services provided.

1.15.2 Travel Expenses: No additional travel expense payments and/or reimbursements beyond those identified in a PAQ shall be made to the contractor for providing the services described herein.

2. CONTRACTUAL REQUIREMENTS

2.1 Contract Definition: (See official contract documents available at: <http://content.oa.mo.gov/purchasing-materials-management/bidding-contracts/awarded-bid-contract-document-search>)

2.1.1 The State of Missouri shall not sign or execute any additional contract, license, or other agreements containing contractual terms and conditions as a result of this procurement. Agency and/or Cooperative Procurement (if applicable) End Users of the contract may place orders under this contract in accordance with the stated procedures, provided such orders do not change the contract terms and conditions. Under no circumstances may a PAQ issued under the contract agreement change or modify any of the terms, conditions, and provisions of the contract.

2.2 Price:

2.2.1 Pricing for the products/service specified herein shall be determined based on the product(s)/service(s) and quantities requested by the state agency at the time of need. The state shall not pay nor be liable for any other additional costs including but not limited to taxes, shipping charges, insurance, interest, penalties, termination payments, attorney fees, liquidated damages, etc.

2.2.2 All pricing shall include all packing, handling, shipping and freight charges FOB Destination, Freight Prepaid and Allowed. The State of Missouri shall not make additional payments or pay add-on charges for freight or shipping unless specifically described in the proposal, or as otherwise specifically stated and allowed by the RFP.

2.3 Payments: (See official contract document)

2.4 Federal Funds Requirement (See official contract document)

2.5 Liabilities (See official contract document)

2.6 Insurance:

- 2.6.1 The State of Missouri cannot save and hold harmless and/or indemnify the contractor or employees against any liability incurred or arising as a result of any activity of the contractor or any activity of the contractor's employees related to the contractor's performance under the contract. Therefore, the contractor must acquire and maintain adequate liability insurance in the form(s) and amount(s) sufficient to protect the State of Missouri, its agencies, its employees, its clients, and the general public against any such loss, damage and/or expense related to his/her performance under the contract. General and other non-professional liability insurance shall include an endorsement that adds the State of Missouri as an additional insured. Self-insurance coverage or another alternative risk financing mechanism may be utilized provided that such coverage is verifiable and irrevocably reliable and the State of Missouri is protected as an additional insured.

2.7 Inventions, Patents, and Copyrights (See official contract document)

2.8 Cooperative Procurement Program:

- 2.8.1 If the contractor has indicated agreement in Exhibit G with participation in the Cooperative Procurement Program, the contractor shall provide Photogrammetric Mapping Products/Services as described herein under the terms and conditions, requirements and specifications of the contract, including prices, to other government entities in accordance with the Technical Services Act (section 67.360, RSMo, which is available on the internet at: <http://www.moga.mo.gov/statutes/c000-099/0670000360.htm>.) Participation by other governmental entities is discretionary on the part of that governmental entity and the State of Missouri bears no financial responsibility for any payments due the contractor by such governmental entities.

2.9 Substitution of Personnel:

- 2.9.1 The State of Missouri's agreement to the contract is predicated in part on the utilization of the specific key individual(s) and/or personnel qualifications identified in the proposal. Therefore, the contractor agrees that no substitution of such specific key individual(s) and/or personnel qualifications shall be made without the prior written approval of the state agency. The contractor further agrees that any substitution made pursuant to this paragraph must be equal or better than originally proposed and that the state agency's approval of a substitution shall not be construed as an acceptance of the substitution's performance potential. The State of Missouri agrees that an approval of a substitution will not be unreasonably withheld.
- 2.9.2 At the agency's request and with reasonable justification, the contractor shall provide immediate replacement of any of the contractor's staff providing services under the contract if deemed to be in the best interests of the agency.

2.10 Coordination:

- 2.10.1 The contractor shall fully coordinate all contract activities with those activities of the state agency. As the work of the contractor progresses, advice and information on matters covered by the contract shall be made available by the contractor to the state agency or the Division of Purchasing and Materials Management throughout the effective period of the contract.

2.11 Property of State:

- 2.11.1 All documents, data, reports, supplies, equipment, and accomplishments prepared, furnished, or completed by the contractor as a requirement of the contract pursuant to the terms of the contract shall become the property of the State of Missouri. Upon expiration, termination, or cancellation of the contract, said items

shall become the property of the State of Missouri and shall be delivered to the state agency within seven (7) calendar days.

2.12 Ownership of Deliverables:

2.12.1 When any state agency contributes funds used towards acquisition of a deliverable or when any user of the contract realizes cost savings through the use of buy-up provisions of this contract, all documents, data, reports, supplies, equipment, and accomplishments prepared, furnished, or completed by the contractor as a requirement of the contract pursuant to the terms of the contract shall become the joint property of the State of Missouri and any other public entity contributing funds toward acquisition of the deliverable or realizing savings through use of the buy-up provisions of this contract. Such products shall be considered to be in the public domain. Upon expiration, termination, or cancellation of the contract, said items shall be delivered to the state agency within seven (7) calendar days.

2.12.2 When a user of the contract acquires deliverables without utilizing funds contributed by a state agency and/or without realizing cost savings through the use of buy-up provisions of this contract, all documents, data, reports, supplies, equipment, and accomplishments prepared, furnished, or completed by the contractor as a requirement of the contract pursuant to the terms of the contract shall become the sole property of the entity acquiring the product(s). Such products shall not be considered to be in the public domain.

2.13 Confidentiality and Security Documents:

2.13.1 All discussions with the contractor and all information gained by the contractor as a result of the contractor's performance under the contract shall be confidential and no reports, documentation, or material prepared as required by the contract shall be released to the public without the prior written consent of the state agency.

2.13.2 If required by the state agency, the contractor and any required contractor personnel must sign specific documents regarding confidentiality, security, or other similar documents upon request. Failure of the contractor and any required personnel to sign such documents shall be considered a breach of contract and subject to the cancellation provisions of this document.

2.14 Intellectual Property Rights (See official contract document)

2.15 Replacement of Damaged Product:

2.15.1 The contractor shall be responsible for replacing any item received in damaged condition at no cost to the State of Missouri. This includes all shipping costs for returning non-functional items to the contractor for replacement.

2.16 Substitutions of Products/Services (see official contract document)

2.16.1 The contractor shall not substitute any item(s) that has been awarded to the contractor without the prior written approval of the Division of Purchasing and Materials Management.

EXHIBIT A

PHOTOGRAMMETRIC PRODUCTS/SERVICES LIST

ITEM	PRODUCT/SERVICE DESCRIPTION
001	Acquisition of Digital Orthoimagery
002	Acquisition of LiDAR Elevation Data
003	Creation of Digital Terrain Model from LiDAR
004	Creation of Digital Elevation Model from LiDAR
005	Creation of Contours Lines
006	Planimetric Mapping