

PUBLIC NOTICE
MARYLAND DEPARTMENT OF TRANSPORTATION

NOTICE
TO
ARCHITECTS & ENGINEERS

TRANSPORTATION PROFESSIONAL SERVICES SELECTION BOARD

REQUEST FOR PROFESSIONAL SERVICES

The Secretary of the Maryland Department of Transportation has certified to the Transportation Professional Services Selection Board the need to utilize the services of engineers and architects for the following project:

Contract Number MAA-AE-15-001

**Comprehensive Professional Services for Geographical Information System (GIS),
Subsurface Utility Engineering (SUE), Document Management, and Engineering Data
Development at Baltimore/Washington International Thurgood Marshall, Martin State
and Regional Airports**

Firms interested in being considered for work on any Project must submit an Expression of Interest for that Project as set forth herein. The Expression of Interest shall be in an envelope marked with the specified contract number for the Project. The letter portion of the Expression of Interest shall indicate the firm's desire to perform services and indicate the specific tasks or areas of expertise that will be subcontracted, and to whom. Interested firms must submit the material required herein or the interested firm will not be considered for the Project.

Of all the firms expressing interest in a Project, those adjudged most qualified will be requested to submit Technical Proposals. Additional information will be supplied to the selected firms so they can prepare such proposals for the Project. The firm that submits the highest rated Technical Proposal will be requested to submit Price Proposals. When Price Proposals are prepared, Salary, Payroll Burden, and Overhead limitations have been eliminated. Salaries shall be actual per hour salary rates as supported by Payroll Records while Payroll Burden and Prime and Subconsultants' overhead shall be supported by an annual overhead audit performed by an independent Certified Public Accountant in accordance with Federal Acquisition Regulations 48 Code of Federal Regulation 1, Part 31 and applicable MDOT Guidelines. The annual overhead audits shall identify separate rates for home office overhead rate, field overhead rate, and combined overhead rate. If negotiations with the firm are timely and successful, a contract may be awarded to that firm. If an interested firm is requested to submit a technical proposal, their proposal should substantially reflect the same composition and area of involvement as their Expression of Interest.

If a Joint Venture responds to this Project advertisement, the Department of Transportation will not accept separate Expressions of Interest from the Joint Venture constituents. A firm will not be permitted to submit on more than one (1) Joint Venture for this Project advertisement. Also a firm that responds to this Project advertisement as a Prime or a Prime joint venture constituent may not be included as a designated subcontractor to another firm that responds as a Prime to this Project advertisement. Multiple responses under any of the foregoing situations will cause the rejection of all responses of the firms involved. The above does not preclude a firm from being set forth as a designated subcontractor to more than one (1) Prime responding to this Project advertisement.

Questions concerning submissions and procedures may be addressed to Lynda Warehime, Chief A/E & Service Procurements, MAA at lwarehime@bwiairport.com or 410-859-7331. Facsimile copies are not acceptable. No response received after 4:00 P.M. EST on the date specified for this Project will be accepted, no matter how transmitted. Minority business enterprises are encouraged to respond to this solicitation notice.

RESPOND TO:

Norie A. Calvert

OFFICE OF PROCUREMENT & CONTRACT MANAGEMENT

Fourth Floor, C-405

707 North Calvert Street

Baltimore, Maryland 21202

I. Maryland Aviation Administration (MAA)

A. **Contract Number: MAA-AE-15-001:**

1. **Project Description:**

It is the intent of the MAA to enter into one or multiple contracts for Comprehensive Professional Services for Geographical Information System (GIS), Subsurface Utility Engineering (SUE), Document Management, and Engineering Data Development at Baltimore/Washington International Thurgood Marshall (BWI Marshall), Martin State (MTN), and Regional Airports. Consultants selected for these projects shall provide on-call services consisting of individual project assignments consistent with MAA's requirements over a six (6) year period. The MAA reserves the right to extend this contract for up to two years. It is anticipated that project assignments will be funded with State, Federal, and/or other funds. The MAA has an estimated budget of \$6,000,000 for these services, and may elect to enter into one or multiple contracts for these services based on a sufficient number of qualified proponents. Each successful consultant must be able to perform all of the elements in the Scope of Services described herein. Contract award(s) is subject to receipt of necessary funding and approval by the Maryland Department of Transportation and the Maryland Board of Public Works.

2. **Consultant Services Required:**

The Consultant shall provide services described herein on an on-call basis at the direction and discretion of the MAA in accordance with Federal and State guidelines, requirements and standards. It is anticipated that project assignments will be funded with Federal and State, or other funds. The Maryland Aviation Administration is requesting consulting services from a qualified consultant(s) to assist in implementing customized airport-specific applications to leverage GIS information and other data in nearly every element of airport engineering, planning, construction, operations, security, life safety, and maintenance at BWI Marshall, MTN, and Regional Airports. These airport GIS and non-GIS based applications will improve MAA's business workflows by providing more efficient and quicker access to information, documents, and geospatial data used in day-to-day decision making. Among the areas to benefit from these efforts, include but is not limited to passenger boarding gate management; airfield signs and markings

management; roadway signs management; pavement management, property/leasehold management; environmental compliance; operational safety; building permit processing; document management and review; asset tracking; and electronic bidding. Furthermore, the consultant(s) will assist MAA in continued adherence to the Federal Aviation Administration's (FAA) requirements covering the entire spectrum of FAA airport data requirements, including but not limited to runways, taxiways, and aprons data; navigational aid data; obstruction data; and data on various airport features and landmarks meeting the requirements of Title 14 Code of Federal Regulations (CFR) Part 139, Certification of Airports, as well as various FAA advisory circulars, specifically Advisory Circular 150/5300-18B-General Guidance and Specification For Submission of Aeronautical Surveys To NGS: Field Data Collection And Geographic Information System (GIS) Standards. Other services sought include, but is not limited to, Level, A, B, C, and D Subsurface Utility Engineering; CADD Services; and the collection, management, streamlining, and maintenance of electronic documents and spatial data.

MAA has already begun to leverage and maintain an extensive collection of GIS data and electronic documents within its Airport Information Retrieval Portal (AIRPortal) to support and enhance many of its core engineering, architectural, and operational functions, besides meeting federal obligations. The consultant shall support MAA in collaboration, collection, quality control, and integration of design, construction, SUE, GIS data, and various types of documents prepared by other consultants into the AIRPortal. The Consultant will support MAA in the submission of GIS data to the FAA Airports GIS program (AGIS) for safety critical programs for the operation and safety of the National Airspace System.

The Consultant will maintain the building plans and space allocation layout and data in support of design, planning, commercial management, and various MAA's security and life safety systems. The Consultant shall locate, map, capture, attribute, manage, and maintain interior and exterior features, aboveground and underground utilities, engineering surveys, and other airport data and documents as required by existing and

future applications within AIRPortal in support of planning, design, construction, operations, maintenance, and safety and security activities.

In providing GIS, SUE, Document Management, and Engineering Data Development services and support at BWI Marshall, MTN, and Regional Airports the following services will be required:

- Implementing the requirements of FAA AC 150/5300-18, and supporting GIS data exchanges with FAA's Airport GIS (AGIS), including data processing, converting MAA GIS data formats to FAA schemas, and assisting with AGIS submissions.
- Designing, development, and implementing geodatabases.
- Collecting non-survey grade data, such as indoor asset locations and attributes.
- Collecting survey grade data, such as exterior asset locations and attributes.
- Checking, editing, and correcting geometry, topological integrity, and attribute quality.
- Enhancing and improving addressing/naming/referencing of properties, buildings, rooms and assets.
- Cataloging and organizing legacy GIS/CAD datasets and historical documents.
- Creating, updating, and georeferencing geospatial datasets from digital and/or paper data sources such as "as-built" and record drawings, including scanning and heads-up digitizing, if needed.
- Developing improvements in existing data maintenance/QA workflows and associated plans and development of standards and workflows for airport GIS/CAD data collection and maintenance.
- Developing procedures and standards for documents and GIS/CAD data, including setting up and training in the use of tools to automate QA and compliance with standards, such as CADD Conform, ArcGIS Data Reviewer, and scripts.
- Developing geoprocessing models and Extract, Transform, and Load (ETL) scripts.
- Customizing code, scripts, and/or tools created to interface with existing

ESRI/Autodesk software, licensed and maintained by MAA.

- Customizing code, scripts, and/or tools to support and improve efficiency of complex geospatial data processes, including data maintenance, reporting, visualization, quality/performance checks and data sharing in multiple formats and across multiple systems.
- Developing, implementing, maintaining, and updating advanced user-friendly, customized (desktop, mobile and web), modular, scalable, interoperable and secured GIS and non-GIS applications, portals, dashboards, and reporting tools.
- Developing ArcGIS for Mobile Windows and ArcPAD to support field/mobile applications on Windows-based tablets.
- Develop and implement basic intranet web GIS viewers, using ArcGIS Viewer for Flex (v2) and ArcGIS Server.
- Developed, maintain, and monitor internet web GIS viewers using ArcGIS Viewer for Flex (v2) and ArcGIS Server residing outside MDOT's firewall using ArcGIS Online for MAA staff, consultants, contractors, and tenants to publish data and simple web maps and web apps.
- Designing, implementing, maintaining, and updating desktop, web, and mobile GIS and non-GIS applications and customizing commercial-off-the-shelf (COTS) software packages.
- Conducting studies and/or developing prototypes for proposed GIS and non-GIS solutions and associated technologies useful to MAA.
- Providing non-GIS and GIS based software upgrades, including testing and upgrading custom code in existing GIS and non-GIS applications.
- Developing and configuring secured web/server-based solutions using ESRI software (e.g. GIS theme-based web portals, dashboards, etc.).
- Customizing GIS functionality to facilitate discovery of electronic documents and drawings.
- Providing GIS data modeling, geospatial data collection and maintenance, and geodatabase design (to support complex GIS editing/QA workflows, as well as high performance and availability for ad-hoc mapping and business decision support).

- Administering MAA's AIRPortal Clearinghouse to manage its geospatial data and documents.
- Defining and developing solutions to support GIS/CAD/BIM integration, interoperability, conversion, and workflows.
- Preparing documentation in the form of metadata, process/configuration diagrams, user/administrator guides, training materials, etc.
- Troubleshooting and assisting users and administration of user access and privileges.
- Defining, developing, implementing, and maintaining GIS & Non-GIS applications for Procurement, Airport Operations, Maintenance, Security, and other offices at MAA.
- Monitoring, updating, configuring, maintaining, and troubleshooting AIRPortal internal network, and internal and external (DMZ) servers in coordination with MAA Office of Information Technology.
- Conducting Level, A, B, C, and D Subsurface Utility Engineering (SUE), including field data collection, digitizing, attributing, repositioning, designating, locating, networking, and managing services based on the ASCE Standard CI/ASCE 38-02.
- Designating, recording, and marking the horizontal location of existing underground utilities and, when required, determine and record the approximate depth of all existing utilities as determined by subsurface utility designating techniques.
- Performing field surveys to determine the exact location and position of utility lines and locate utilities using vacuum excavation or comparable equipment to obtain precise horizontal and vertical position of utility features.
- Preparing maps and attribute utility features using digitizing, attribution, repositioning, designating, and locating processes for incorporation into a geometric network.
- Preparing specifications and performing or assisting with procuring photography, mapping, LiDAR, and aerial photogrammetry.
- Preparing specifications, request for proposals, and assist with procuring

specialized hardware and software to support AIRPortal applications.

- Conducting AIRPortal and GIS/CAD training for users and administrators.
- Preparing design standards to support AIRPortal applications.
- Managing, organizing, and cataloging Compact Disks (CDs) and hard copy documents.
- Providing MAA with CADD support.
- Preparing MAA's AIRPortal Strategic Plan.
- Assisting with obtaining Federal, State and/or other funding.
- Preparing wire-frames, design visualizations, computer simulations presentation materials, and conducting presentations.
- Providing other related services customarily furnished by the consultant and its Subconsultants on similar projects.
- Developing and implementing non-GIS and GIS tools and geographic-based applications, to integrate AIRPortal with existing and future applications that support MAA business processes, including, but not limited to:
 - Airport Project Administration System (AirPAS).
 - Project Information Management System (PIMS).
 - SUE and Utility Management (Multiple AIRPortal GIS applications).
 - Airfield/Landside Pavement Management and Reporting (Paver).
 - Maintenance Work Order Management (Maximo).
 - Electronic Documents Search, Retrieval and Review (AIRPortal Airdocs).
 - Integrated Airport Security Systems and Computer-Aided Dispatch.
 - Airfield/Landside Pavement Management and Reporting (AIRPortal PMP Application and PAVER).
 - Gate Management Application, FIDS and BIDS.
 - FAR Part 139 Airfield Inspections.
 - Asset Inventory, Tracking & Management, and Facility Condition Analysis.
 - Construction Contracts Bid Portal and Electronic Bidding.
 - Property/Space/Leasehold Inventory & Management (AIRPortal Space Management Application).

- Environmental Monitoring and Compliance System [Joint Environmental Tracking System (JETS)].
- Fire Alarm Systems (Honeywell Graphic Alarm System).
- Emergency Management Systems.
- Aircraft Noise Monitoring, Analysis, and Mitigation.
- Airspace Obstruction Analysis and Management.
- Stormwater/Drainage/Deicing Management.
- Passenger Wayfinding & Signage Systems.
- Building Management Systems.
- Building Information Models (BIM).
- Building Permit Management.
- Land Use Management and Analysis.
- Automated Vehicle Location and Identification Systems (AVL/AVI).
- Airport Parking Management Systems.

The Consultant shall be able to provide competent on-site full-time and/or part-time technical and administrative staff to MAA to assist MAA's personnel in the following areas/disciplines: project management; document management; GIS management; Computer Aided Design and Drafting (CADD); Building Information Modeling (BIM); administrative support; scanning and digitizing; utility locating and verification; site surveying; maintenance of data and documents; data acquisition, conversion, migration, maintenance, and compliance; and update of AIRPortal data and documents for the duration of the contract. The on-site staff will operate independently of the Consultant and under the direction of MAA management. All on-site support staff are subject to the audited field overhead rate.

The Administration may request the above services concurrently or independently as various project assignments warrant. The Consultant shall demonstrate and possess the ability and manpower to respond to and act immediately on project assignments without any delay and interruption to other MAA project assignments being completed by the Consultant. The required services will be performed almost exclusively at BWI Marshall

and MTN airports; however, at its sole discretion, MAA may require the Consultant to provide similar related services and support to the other public use airports in the state of Maryland's aviation system.

3. Specific Type Firm Solicited:

The Consultant shall be proficient in the types of services listed under Item #2, above, and bring an experienced and expert staff to the Project. The Consultant should demonstrate, through similar project experience, sufficient and satisfactory expertise in the defining, developing, implementing, configuring, managing, updating, maintaining, and troubleshooting similar GIS & Non-GIS applications at airports or similar facilities. The Consultant shall have demonstrated ability to successfully integrate similar applications both functionally and aesthetically into an existing environment.

Additionally, the Consultant must have demonstrated capabilities for conducting Level, A, B, C, and D Subsurface Utility Engineering, including field data collection, digitizing, attributing, repositioning, designating, locating, networking, and managing services. The Consultant must have demonstrated capabilities and ability to have developed and implemented GIS tools and geographic-based applications, as well as integration strategies with existing systems that support a multiple of airport business processes including, but not limited to:

- Demonstrated experience and successful implementation of enterprise GIS programs, preferably at airports.
- Extensive experience with Geographic Information Systems (GIS) and ESRI software including ArcView, ArcEditor, ArcGIS Server, ArcInfo, ArcSDE; and GIS products including project files (.apr), map files (.mxd), and geodatabases; as well as, AutoCAD, Microsoft Windows, Word, Excel, Access, Power Point, Outlook, Internet Explorer, and Adobe Acrobat.
- Practical experience customizing applications in several languages and platforms that are common in GIS applications, including Flex, HTML 5, Javascript, Python, Silverlight, UML, XML, C#.net, PUSQL, etc.
- Demonstrated experience in utilizing the latest version of ArcGIS products to develop GIS and non-GIS web applications for utilities, asset management, space

management, and document management, data maintenance, and prepare CADD drawings using GIS.

- Expertise with coding/ scripting languages and platforms commonly used in GIS solutions (e.g. HTML5, JavaScript, Python, C#.net, Flex, Silverlight, PUSQL, XML, UML, etc.)
- Prepare technical documentation for geodatabase designs and maintenance processes (including data dictionaries, UML/Visio diagrams, entity relationship diagrams, and maintenance plans).
- Custom programming/scripting to create a user-friendly geoprocessing tool to automate a complex geodatabase maintenance/synchronization process, which would require experience with python, C#.net, ArcSDE/file geodatabases, CAD data, ArcGIS Server, Oracle/SOL Server, and SharePoint.
- Conduct and prepare documentation to support activities associated with custom software lifecycle best practices (e.g. system/performance/regression testing, user acceptance testing, technical specifications, hardware/software requirements, test scripts, use cases and implementation/deployment/maintenance plans).
- Knowledge and practical experience to design, implement, populate and QA attribute and geometry in geodatabase and CAD datasets.
- Experience in preparation of metadata and ArcGIS layer (.lyr) files compliant with Federal Geographic Data Committee (FGDC) and International Organization for Standardization (ISO).
- Knowledge and practical experience in customizing GIS solutions for deployment in enterprise-level IT secured infrastructures (e.g. VPN, DNS, DMZ, Firewalls, LAN/WAN, wireless, etc.).
- Experience in dealing with data quality and integration challenges with various formats of geospatial data, including CAD and GIS-based formats.
- Experience with mobile-based data collection including GPS technology.
- Experience with different integration strategies and technologies, including data mining, replication, and ETL processes.
- Experience in geospatial database modeling, development, and administration.
- Experience with GIS, CAD, and BIM related industry standards, guidelines, best

practices, data models, and exchange formats.

- Demonstrated experience working with business systems, including Sharepoint and Maximo.
- Experience integrating GIS with electronic document systems.
- Experience with geostatistics, decision support systems, and business intelligence applications.
- Experience with data hubs, data warehouses, data marts, and online analytical processing (OLAP) in support of AIRPortal GIS and non-GIS solutions and interoperability.
- Understanding of various IT infrastructure components and their role in developing secured and stable GIS solutions (e.g. LAN, WAN, Wireless, Firewalls, DMZ, DNS, Windows Authentication, etc.).
- Demonstrated experience in utilizing and conducting automated scripts for quality check of projects' CADD & GIS data sets for conformance with MAA's and FAA standards prior to delivery.
- Demonstrated experience following software development lifecycle practices that ensure quality, efficiency, and development of maintainable solutions that meet user requirements.
- Demonstrated experience in software/system/user acceptance and usability testing methods.
- Experience with user-centered software design principles.
- Experience with interviewing and documenting end-user functional requirements for data and custom web/mobile applications.
- Skilled in developing technical standards and training documentation.
- Experience with gathering and documenting user requirements, functional and system specifications, user acceptance testing criteria, and system/performance test plans.
- Demonstrated experience in performing usability testing to ensure custom applications developed are intuitive to end users and meet user performance goals.
- Demonstrated experience in performing project/design level nondestructive engineering investigations and analysis incorporating civil engineering, surface

geophysics, test-pitting, surveying and mapping, non-destructive vacuum excavation, and asset management technologies to identify and classify quality levels of existing subsurface utility data as well as mapping the locations of underground utilities.

- Experience with interpreting and digitizing information in engineering and architectural drawings.
- Demonstrated experience in scanning, georeferencing, digitizing, and attributing vector data in large engineering drawings.
- Demonstrated experience employing relevant industry best practices, standards, and guidelines.
- Demonstrated experience in conducting research, inventory, and classifying of existing GIS/CAD digital data holdings at MAA.
- Experience in preparing ArcGIS-based hardcopy maps and atlases.
- Skilled in preparing materials and training for data & custom software maintenance that is audience-specific (i.e. end users, data stewards, system administrators, and help desk staff).
- Knowledge of airport/airspace/aeronautical matters.
- Knowledge of both airside and landside planning, engineering, operations, and maintenance practices.
- Knowledge of aviation and transportation regulations, policies, guidance, handbooks and procedures (including FAR Parts 139, 150, and CFR Parts 1520 and 1542).
- Knowledge of FAA Advisory Circulars (AC), including 150/5070-6, 5300-13, 16, 17 and 18.
- Familiarity with required airport documents (eALP, Master Plans, etc.)
- Experienced in conducting research studies, analyses, and evaluations of current practices to identify state-of-the-art technologies and procedures that can be utilized at BWI Marshall, MTN, and other airports to improve business processes.

4. Required Information

The Consultant shall submit one (1) unbound original Expression of Interest containing signatures, and nine (9) bound copies of its signed original Expression of Interest, which shall include the following:

- a. One (1) Letter of Interest - Limited to two (2) pages in total, which must contain:
 - i. The email address of the primary liaison.
 - ii. The information that the Consultant has the financial capacity to provide the services and has measures of protection for the State against errors and omissions.
 - iii. Additionally, the Letter of Interest must sufficiently address the following qualification criteria [one (1) paragraph each]:
 - a) General Competence.
 - b) Past performance on work at airports.;
 - c) Compatibility of the size of the firm's local office with the size of the proposed project.
 - d) Capacity to accomplish proposed work in required time.
- b. One (1) US Government Form SF255.
- c. One (1) US Government Form SF254 for each firm, including each subcontractor, proposed.
- d. One (1) additional and unbound copy of the Letter of Interest.
- e. One (1) additional and unbound SF254 Form, for those firms, including Subconsultants.
- f. A copy of the Firm's current certificate(s) of insurance.
- g. One (1) bound copy of the Expression of Interest in pdf format on a CD.
- h. The Consultant shall comply with the "**Requirements**" and "**Special Requirements**" set forth hereinafter when completing the aforesaid documentation.
- i. As per State Finance & Procurement, firms engaging in investment activities with companies appearing on the Investment Activities in Iran List are ineligible for bid/proposal/award. The Investment Activities in Iran list is located at www.bpw.state.md.us of the Maryland Board of Public Works (BPW) web site. As per the BPW Advisory No.: 2013-1; Date Issued: January 1, 2013. An officer

of the firm shall provide a signed original certification as per language listed on the BPW Advisory page.

- j. US Government forms are to be completed with standard size typing and are not to be photo reduced. Computer generated forms are acceptable; however, the format and spacing is to be identical to that of the Standard Forms 254 and 255.

5. Requirements - Documentation:

- a. In completing the SF255 Form, Item #4, Personnel by Discipline, the Consultant shall document personnel by discipline presently employed at the work location proposed. If more than one (1) location is being proposed by the Consultant, the Consultant must clearly document all locations proposed and show the total number of personnel by discipline for all locations proposed. For the purposes of invoicing, all direct expense charges shall be calculated using the local office location proposed. Subconsultant personnel are not to be included.
- b. **Key Staff** - The information required for Item #7, Key Staff, shall be limited to the six (6) key individuals proposed for performing significant productive time on the Project, and shall not exceed eleven (11) pages in total.
 - i. The Consultant shall only submit information for the six (6) Key Staff individuals identified below; information for other individuals will not be evaluated and may result in overall lower scores.
 - ii. The following disciplines are considered of primary importance for this contract and must be documented under Item #7, Key Staff:
 - 1) *Principal in Charge.*
 - 2) *Project Manager.*
 - 3) *GIS/AIRPortal Team Leader.*
 - 4) *SUE Team Leader.*
 - 5) *Document Management Team Leader.*
 - 6) *Engineering Team Leader.*
- c. **Key Staff Qualifications** - The Consultant must document in writing in Item #7 that the proposed key staff individuals meet the following requirements:

i. **Principal in Charge:**

- 1) The Principal in Charge's resume shall be limited to one (1) page.
- 2) The Principal in Charge must be an employee of the Prime Consultant.
- 3) The Principal in Charge shall be an individual in the firm's top management and leadership whose primary function is the general oversight and monitoring of the firm's staffing and services in connection with a this project and to support and assist the Project Manager in the performance of his/her responsibilities associated with this Project.
- 4) The Principal in Charge shall have the absolute authority to plan, organize, direct, and commit resources to accomplish projects assigned to the firm by the MAA in a timely manner.
- 5) The Principal in Charge shall be the key representative of the firm to MAA.
- 6) The Principal in Charge shall be solely responsible and accountable for the quality and workmanship of services provided to MAA and will have the organization in place to assure services provided to MAA have gone through an established Quality Assurance and protocol.
- 7) The Principal in Charge shall be prepared to meet with MAA periodically to discuss the firm's performance; responsiveness; and quality of work, and take adequate and effective steps to ensure improvements are made to MAA's satisfaction.

ii. **Project Manager:**

- 1) The Project Manager's resume shall be limited to two (2) pages.
- 2) The proposed Project Manager must be an employee of the Prime Consultant.

- 3) The proposed Project Manager must report directly to the proposed Principal in Charge. Such relationship must be shown on the office organization structure/chart requested below.
- 4) The Project Manager must be located in the local project office full time.
- 5) The Project Manager must have at least ten (10) years of documented relevant experience and be highly knowledgeable in GIS & Non-GIS applications; SUE practices and principals; as well as; general architectural and engineering processes.
- 6) The Project Manager must be highly knowledgeable of various FAA advisory circulars, airport data collection and submission requirements.
- 7) The Project Manager proposed must have been the Project Manager on similar projects and have successfully managed contracts of similar size, scope, and complexity within the past five (5) years.
- 8) The Project Manager must have demonstrated experience in principles and practices of managing an enterprise GIS.
- 9) The Project Manager must:
 - Have the availability to meet the time commitments of the Contract and be involved in the day-to-day project activities.
 - Manage the coordination of the project team activities.
 - Develop and monitor the projects schedule and budget, and implement necessary controls to ensure projects are completed on schedule and on budget.
 - Coordinate the Subconsultants activities and all disciplines involved to ensure seamless integration of services provided to MAA.

- Ensure timely submittal of monthly invoices and ensure the Primes' and Subconsultants' compliance with the Contract requirements.
- Develop and implement a quality management plan; effective communications plan; and adequate project staffing plan.

iii. **GIS/AIRPortal Team Leader:**

- 1) The GIS/AIRPortal Team Leader's resume shall be limited to two (2) pages.
- 2) The GIS/AIRPortal Team Leader must have at least eight (8) years of documented experience in the discipline proposed.
- 3) The GIS/AIRPortal Team Leader must have graduated from an accredited four-year college or university in GIS, Earth Sciences, Engineering, Computer Science or a related field, preferably supplemented by a Master's degree with major course work in planning, geography, computer science, engineering, information services or related field; plus considerable experience with ESRI software and GIS concepts and technologies.
- 4) The GIS/AIRPortal Team Leader must be highly knowledgeable of various FAA advisory circulars, airport data collection and submission requirements, and aviation industry standards and practices in GIS.
- 5) The GIS/AIRPortal Team Leader must have working knowledge of FAA Advisory Circulars (AC), including 150/5070-6, 5300-13, 16, 17, and 18.
- 6) The GIS/AIRPortal Team Leader must have a Geographic Information Systems Professional (GISP) Certificate.
- 7) The GIS/AIRPortal Team Leader shall:

- Manage and coordinate an enterprise Geographic Information System (GIS) program in a multi-departmental interagency environment.
- Coordinate user requirements with system capabilities.
- Coordinate the establishment and implementation of system policies, procedures, and standards.
- Work with the Office of Airport Technology to monitor system hardware performance in order to maximize efficiency of equipment and software; recommend hardware and software updates; hardware and software acquisitions; and coordinate training opportunities.
- Establish, implement, and review work policies, procedures, and plans for the GIS system; monitor system activities and usage in order to make adjustments as needed.
- Prepare documents, correspondence, technical and management reports for the enterprise GIS; develop applicable operational standards, manuals, and guidelines for the enterprise GIS.
- Oversee and perform work relating to the development of user and system-wide applications.
- Establish enterprise standards and procedures for GIS data capture, formatting, integration, retrieval, updating, mapping, analysis, and documentation.
- Represent the enterprise GIS in a professional manner to explain its mission, priorities, benefits, and work tasks to elected and appointed officials, user groups, and potential system clients.
- Work with and direct the performance of Subconsultants retained under the contract to complete tasks relating to the enterprise GIS; monitors work scope, task schedules,

contract budgets and Subconsultants personnel performance.

iv. **SUE Team Leader:**

- 1) The SUE Team Leader's resume shall be limited to two (2) pages.
- 2) SUE Team Leader must have at least eight (8) years of documented experience in SUE, utility design or coordination.
- 3) Graduation from an accredited four-year college or university in Engineering, Land Surveying, or a related field.
- 4) Must be a Licensed Professional Civil Engineer with at least 3 years of SUE experience or a Licensed Land Surveyor experienced in surveying utility features.
- 5) Must have extensive knowledge of surveying and data recording equipment.
- 6) Must have demonstrated and working knowledge of the ASCE Standard Guideline for Collecting and Depicting Existing Subsurface Utility Data.
- 7) Documented experience in GIS applications and processes.
- 8) The SUE Team Leader shall:
 - Prepare SUE plans and direct multiple subsurface utility engineering projects.
 - Manage project performance, including schedule, budget and quality of the work.
 - Manage project team, including delegating tasks and ensuring compliance with project scope and schedule.
 - Assist in developing procedures, standards, methods, and systems to improve project delivery.
 - Advise MAA of utility risks and recommend an appropriate quality level of utility data for a given project area at the appropriate time within the appropriate project planning and design process.

- Coordinate and specify the desired quality level of utility data to the Consultant, when SUE is performed by other consultants.
- Oversee and coordinate designating, recording, and marking the appropriate horizontal location of existing underground utilities.
- Review plans and recommend areas to MAA and its consultants that require locating test hole sites within the project limits.
- Oversee and coordinate the assembly and presentation of designating and locating information in a format compatible with MAA's GIS/CADD standards.
- Review and coordinate the submittal of utility "locating" information to MAA or its consultant in a digital format compatible with MAA's GIS/CADD standards.

v. **Document Management Team Leader:**

- 1) The Document Management Team Leader's resume shall be limited to two (2) pages.
- 2) Document Management Team Leader must have at least eight (8) years of relevant experience. A minimum of four (4) years of work experience in document management role is required.
- 3) Bachelor's degree in a computer, business, or a management related field.
- 4) Knowledgeable in GIS and CADD application; as well as; general architectural and engineering documents and processes.
- 5) Document Management Certified Professional (DMCP) Certification is highly desirable.
- 6) Must possess a working knowledge of document control processes.
- 7) The Document Management Team Leader shall:

- Coordinate the establishment and implementation of enterprise system policies, procedures, and standards for electronic records management, document indexing, and coding.
- Oversee the Document Management staff to ensure proper control of electronic and hard copy documents, tracking and monitoring of documents, and maintaining relevant databases.
- Coordinate and ensure that pre-established document control requirements are satisfactorily met throughout the duration of each project through close coordination with Document Management staff, Project Managers, and external customers (consultants & contractors).
- Develop and implement document control business processes; provide system reports; maintain and update AIRPortal's web-based document management system.
- Maintain control of electronic and hard copy project documents, including verification of proper file naming conventions, scanning and uploading files to proper folders in accordance with MAA document management standards and procedures.
- Propose recommendations for improving content management system capabilities.
- Develop, document, and maintain standards, best practices, and system usage procedures.
- Assist in the development of document or content classification categorization to facilitate information capture, search, and retrieval.
- Oversee the administration of document and system access rights and revision control to ensure security of system and integrity of master documents.

- Identify and classify documents and other electronic content according to characteristics such as security level, function, and metadata.
- Develop and configure document management system features, such as user interfaces, access profiles, and document workflow procedures.
- Advise and consult with users to develop required application services and business processes; assists in planning, coordinating, and scheduling future needs keeping all parties informed of plans, progress, and training requirements.
- Develop and recommend application and resource priorities.

vi. **Engineering Team Leader:**

- 1) The Engineering Team Leader's resume shall be limited to two (2) pages.
- 2) The Engineering Team Leader must have at ten (10) years of documented relevant experience.
- 3) The Engineering Team Leader must have documented experience in GIS & Non-GIS applications and SUE practices and principals.
- 4) The Engineering Team Leader must be a Licensed Professional Civil Engineer with at least 3 years of GIS experience.
- 5) The Engineering Team Leader must be highly knowledgeable of FAA airport data requirements, including but not limited to runways, taxiways, and aprons data; navigational aid data; obstruction data; and data on various airport features and landmarks in accordance with the requirements of Title 14 Code of Federal Regulations (CFR) Part 139, Certification of Airports, as well as, various FAA advisory circulars, specifically Advisory Circular 150/5300-18B-General Guidance and Specification For

Submission of Aeronautical Surveys To NGS: Field Data
Collection And Geographic Information System (GIS) Standards.

- 6) The Engineering Team Leader shall have demonstrated knowledge of and experience in project design practices and principles; contract procurement & administration practices and principles; and methods and techniques used in project planning, design, and construction.
- 7) The Engineering Team Leader shall:
 - Provide technical assistance and advice to the Project Manager.
 - Provide technical expertise in an advisory role to other Key Staff and MAA in the areas of GIS, SUE, document management as it relates to Engineering principals and practices.
 - Provide advice to Key and support staff, as well as, MAA and consultants on relevant FAA advisories and airport data requirements.
 - Provide technical and/or functional supervision of Key and support staff in performing complex work involving research, analysis, and the preparation of sound recommendations at a policy level regarding GIS and SUE and as it relates to engineering principals and practices.
 - Participate in the establishment and implementation of system policies, procedures, and standards for various AIRPortal applications.
- vii. Where Maryland Registrations are required for the professional Key Staff, the Consultant shall include on line "f" of Item #7 of the SF255 the words "Maryland Registered" and the Maryland License Registration Certificate Number for the individual or a statement that the individual will obtain his/her Maryland registration three

(3) months after notice to proceed. Failure of the Consultant to properly document compliance with Key Staff requirements in writing will result in the firm being precluded from further consideration for the Project.

viii. At least one member of the Key Staff should have successfully completed FAA’s Integrated Distance Learning Environment Training in the current FAA guidelines.

ix. The first page of the Key Staff’s résumés, with the exception of the Principle in Charge, shall contain the following table in the exact order shown below:

Name	
Registration	
Certifications	
Professional Discipline	
Education/Degree(s) Earned	
Years of Professional Experience	
Company Affiliation	
Title/Position Within the Company	
Years with Current Firm	
Years with Other Firm(s)	
Current Work Location	
Local Company Location	
Years of Experience in the Key Staff Position Proposed	
Years of Experience in the Discipline Proposed	
Years of Experience in Airport/Aviation Related Projects in the Discipline Proposed	
Number of Professional Staff Supervising	

Name and Title of the Person Reporting Directly To	
Location of the Person Reporting To	
Percent of Time Available for this Contract	
Other Professional Obligations/Commitments	
Comments	

- d. **Similar Projects** - The information required for Item #8 (Similar Projects) of the SF255, shall be limited to three (3) Enterprise GIS projects; two (2) Document Management projects; one (1) SUE project; and one (1) other relevant projects and shall not exceed one (1) page per project in total length. Firms must contain their Similar Projects documentation to the given column widths set forth in Item #8 of the SF255 Form. The vertical space used for each of the eight (8) projects cited is at the discretion of the Consultant.
- i. Similar projects set forth must have been started and completed within the past eight (8) years.
 - ii. The Prime’s project office proposed under this contract must have performed at least two (2) of the eight (8) projects listed.
 - iii. Project Manager proposed must have managed at least two (2) of the projects proposed.
 - iv. For all eight (8) projects cited above, the Consultant shall identify the proposed Key Staff’s involvement and position.
 - v. Firms should list references with a point of contact and current/accurate email address and current/accurate telephone number for the agencies at which such projects have been completed.
- e. **Team Organizational Chart** – Submit a Team Organizational Chart, not to exceed one (1) page, containing at a minimum, the Key Staff and the team’s organization. In addition, for every individual proposed for this project and shown on the organizational chart, the chart shall clearly show their company

affiliation, their position within the company, and their current permanent office location.

- f. **Prime’s Office Organizational Chart** – Submit a Prime’s Office Organizational Structure/Chart, not to exceed one (1) page, containing the entire Prime’s hierarchy, or each of the Joint Venture constituents, if applicable. The chart shall identify the current organization structure of the company; the professional staff within each division, section, or group; and line of command. It is not necessary to show support functions, such as human resources, marketing, technicians, or clerks. The office Organizational Structure/Chart shall clearly show in bold font every Prime’s key staff proposed for this project and show who the individuals report to. The organization chart must clearly show where in the hierarchy the proposed Project Manager and the Principal in Charge are positioned.

- g. **Subconsultants** - Provide a Subconsultants’ Information spreadsheet, limited to one (1) page. The completed spreadsheet shall contain all of the Subconsultants proposed with the following information in the exact order shown:

Subconsultant’s Name	Sub 1	Sub 2	Etc.
Area(s) of Expertise/Specialty			
Office Location			
Years in Business			
Years of Relevant Experience in the Area of Expertise Proposed			
Years of Past Working Relationship with the Prime			
Percentage of Work to be Assigned to the Subconsultant			
Number of Other Contracts the firm is a Subconsultant to			
Is the Subconsultant in compliance with and			

current on annual overhead audit requirements of MAA			
Is the Subconsultant a MBE/DBE			
Comments			

h. Item #9 is not required. Any information for Item #9 will not be reviewed or considered in the evaluation process.

i. Item #10 of the SF255 shall be limited to two (2) pages.

6. Special Requirements - DBE/MBE Provisions:

a. The Maryland Department of Transportation (MDOT) hereby notifies all proposers that in regard to any contract entered into pursuant to this advertisement, DBE/MBEs will be afforded full opportunity to submit Expressions of Interest in response to this notice and will not be subject to discrimination on the basis of race, color, sex, or national origin in consideration for an award. It is the goal of MDOT that DBE/MBE certified businesses participate in all contracts. Each contract will contain a goal for DBE/MBE participation, on a contract-by-contract basis. Consultants interested in submitting an Expression of Interest must comply with the “SPECIAL PROVISIONS, AFFIRMATIVE ACTION REQUIREMENTS, UTILIZATION OF DISADVANTAGED BUSINESSES, THE SURFACE TRANSPORTATION AND UNIFORM RELOCATION ASSISTANCE ACT OF 1987 AND ISTEA OF 1991, ATTACHMENT 6” which is obtainable from the Consultant Services Division at the address or phone number noted herein.

b. To comply with the aforesaid SPECIAL PROVISIONS, Consultants who submit Expressions of Interest must clearly set forth the DBE/MBE Prime firm(s) or DBE/MBE subcontractor(s) proposed for goal attainment indicating:

- i. The proposed work,
- ii. Percentage of total work,

iii. MDOT certification number, and
iv. Applicable NAICS codes
for each DBE/MBE. **Said information shall be shown in Item #6 of the Federal Government SF 255 form.**

- c. If the proposed DBE/MBE firm is not certified by MDOT, the Consultant shall indicate the certification status of the proposed DBE/MBE firm in lieu of the certification number.
- d. Since there are tasks that are eligible to be funded with Federal funds, proposed DBE/MBE firms must be certified by MDOT to participate on federally funded projects.
- e. Consultants shall also identify in the letter portion of the Expression of Interest the name of their “Consultant Liaison Officer for Minority Affairs”.
- f. The Consultant’s failure to submit all of the required DBE/MBE information, in the specified areas, will result in the Consultant being disqualified from further consideration for the Reduced Candidate List on this Project, unless it is in the best interest of the State to seek clarification or additional information from the Consultant.
- g. **CONTRACT DBE/MBE GOALS** - FOR THE PURPOSE OF THIS CONTRACT, A GOAL OF FIFTEEN (15%) HAS BEEN ESTABLISHED FOR DBE/MBE FIRMS.
- h. In accordance with COMAR 21.11.03.10(E), effective May 13, 2013 all contracts containing Minority Business Enterprise Program Goals must include the Liquidated Damages Provision.

7. Project Representative:

- a. Lynda Warehime.

8. Additional Information:

- a. The Administration reserves the right to develop multiple Reduced Candidate Lists from those firms responding to this advertisement or to make multiple selections from one (1) Reduced Candidate List.

9. Electronic Transfer:

- a. By submitting a response to this solicitation, the Consultant agrees to accept payments by electronic funds transfer unless the State Comptroller's Office grants an exemption. The selected Consultant shall register with the EFT Registration, General Accounting Division using the COT/GAD x-10 Vendor Electronic Funds (EFT) Registration Request Form, available at <http://compnet.comp.state.md.us/gad/pdf/GADX-10.pdf>. Any request for exemption must be submitted to the State Comptroller's Office for approval at the address specified on the OCT/GAD X-10 form and must include the business identification information as stated on the form and include the reasons for the exemption.

10. Rating Criteria:

The major factors/criteria for the establishment of a Reduced Candidate List for this Project, in descending order of importance, will be:

- a. **Key Staff:**
 - i. Experience relative to the types of services described in "Specific Type Firm Solicited."
 - ii. Years of experience relevant to this solicitation; and location of the individual Key Staff proposed relative to the project office.
 - iii. Chain of command; Principal in Charge and Project Manger's authority; and position/role of each Key Staff in their respective firm.

- b. **Consultant Team (Prime and Subconsultants):**
 - i. Prime’s qualifications and experience relative to the type of services required as described in “Specific Type Firm Solicited.”
 - ii. Subconsultants’ team proposed; qualifications and specific areas of relevant expertise; magnitude of involvement of each Subconsultant.

- c. **Team Experience:**
 - i. Similar project experience in all phases of project definition, development, implementation, and support of similar projects.
 - ii. Specialized recent experience and technical competence of Prim and Subconsultants firms and particular Key Staff members proposed as described in “Consultant Services Required.”
 - iii. Past performance working on MAA projects and/or similar airport work.

- d. **Compatibility and Capacity:**
 - i. Key Staff and team availability to perform the required services.
 - ii. Compatibility of size of firm with size of proposed project.

- e. **Past Performance and Contract Administration:**
 - i. Past performance in achieving MBE/DBE Goals for projects/contracts referenced. This Information should be provided for each of the projects listed in Item #8 of SF255 and should be documented within Item #8 and/or Item #10 of SF255.
 - ii. Demonstrated experience by Prime/Subconsultants administrating contracts at airports, including past performance on compliance with MAA’s contract reporting/administration requirements [i.e. annual audit reporting (based on information provided A.4.a.iii), invoicing practices, quality of work, management of contracts, etc.]

- f. **Firms’ Location:**

- i. Prime's and Subconsultants' project office location and proximity to and familiarity with BWI Marshall and MTN Airports.
 - ii. Principal office location and its relationship with the project office.
- g. **EOI Presentation and Content:**
- i. Conformance with this solicitation's format requirements.
 - ii. Compliance with this solicitation's submittal requirements.
 - iii. Overall presentation and content of the Expression of Interest, including quality of EOI, clarity in presentation of qualifications.

11. Other Contract Requirements:

- a. All pages of the EOI (except forms SF254 and SF255) must be prepared on 8 ½" x 11" paper, Times New Roman, and 12 font size.
- b. MAA must be notified in writing of any substitution of Key Staff members after Expression of Interest has been submitted. The MAA will reevaluate the individual substituted using the same criteria used at the Expressions of Interest stage. Failure by the Consultant to advise MAA of substitutions in advance of Request for Technical Proposals will result in the individual(s) substituted not to be scored in the final selection process.
- c. MAA must be notified in writing of any deletions, additions, and/or substitution of proposed Subconsultants after Expression of Interest has been submitted. The MAA will re-evaluate the requested change using the same criteria used at the Expressions of Interest stage. This may result in a revised score. Failure by the Consultant to advise MAA of any change to the proposed Subconsultant team substitutions in advance of Request for Technical Proposals will result in reduction of respective score in the final selection process.
- d. All customized code, scripts and/or tools developed during the life of this contract will become the property of MAA.
- e. Prospective consultants who do not have access to MAA's AIRPortal and are interested in reviewing the current features and capabilities of MAA's Web-based GIS and other applications within AIRPortal may be given temporary access for

the purpose of responding to this solicitation. To request access, send an email request to “AIRPortal Admin” at airportal@bwiairport.com. The email must contain the purpose of the request, list of individuals requesting access, and full contact information for each individual listed.

- f. All Key Staff proposed must be able to and upon selection must take the necessary action to obtain BWI Marshall Airport security identification badge immediately after contract notice to proceed.
- g. If selected, the Prime may be required to designate a person as an “Authorized Signer” who shall be responsible for signing Primes’ and Subconsultants’ staff applications for obtaining BWI Marshall Airport security identification badge.
- h. If selected, the Prime shall designate an individual who will be responsible for handling and managing documents classified by MAA as Security Sensitive Information (SSI). Such individual must have completed the necessary SSI training.
- i. At least one member of the Prime and/or Subconsultants staff must be able to and upon request by MAA must take the necessary action to obtain BWI Marshall Runway/Taxiway access training and be available to escort the Primes’ and Subconsultants’ staff to site visits requiring Runway/Taxiway crossings.
- j. All scores will remain confidential for short-listed firms until after final selection.
- k. All Rating Criteria scores received by the short listed firms in the review and rating process of this EOI may be retained and used in the final selection process.

12. RESPOND BY:

January 22, 2015, prior to 12:00 P.M. EST.

13. RESPOND TO:

Norie A. Calvert

OFFICE OF PROCUREMENT & CONTRACT MANAGEMENT

Fourth Floor, C-405

707 North Calvert Street

Baltimore, Maryland 21202