Request for Qualifications and Proposals (RFQP) for Enterprise GIS Planning and Implementation

Midpeninsula Regional Open Space District
330 Distel Circle, Los Altos, CA

Issued: July 11, 2016
Proposals Due: 5:00 PM, August 11, 2016

Mandatory Meeting: July 26, 2016 (RSVPs required by July 20th)
Table of Contents

INVITATION ........................................................................................................................................... 3
MANDATORY PRE-PROPOSAL MEETING .................................................................................................. 3
PROJECT DESCRIPTION ............................................................................................................................ 3
  Introduction ........................................................................................................................................... 3
  Background .......................................................................................................................................... 4
  Current GIS Infrastructure and Licensing ............................................................................................. 5
  Project Requirements .............................................................................................................................. 5
SCOPE OF WORK ...................................................................................................................................... 6
  Phase 1: Requirements & Design ........................................................................................................... 6
  Phase 2: Project Planning & Timelines ..................................................................................................... 7
  Phase 3: System Build & Configuration ................................................................................................. 8
  Phase 4: System Testing & QA/QC ......................................................................................................... 8
  Phase 5: Final System Delivery ............................................................................................................ 9
SUBMISSION REQUIREMENTS ................................................................................................................ 9
SELECTION PROCESS ............................................................................................................................. 10
STIPULATIONS ......................................................................................................................................... 12
PUBLIC RECORDS AND PROPRIETARY INFORMATION, INDEMNIFICATION ................................... 13
INVITATION

The Midpeninsula Regional Open Space District (“District”) wishes to engage a professional consultant who can conduct an Enterprise Geographic Information Systems (GIS) Planning and Implementation project. The selected firm or individual (“Consultant”) will be responsible for completing the activities outlined in the scope of work and will be expected to work closely with the District to develop a system that meets short- and long-term GIS business needs.

The District invites you to submit a proposal in accordance with the terms, conditions and specifications contained in this document. Please complete the proposal per the following instructions: Six (6) printed and bound paper copies of each final proposal as well as an email with the proposal in PDF format are to be submitted by August 11, 2016 at 5pm. Proposals should be sent to:

Casey Hiatt, GIS Program Administrator
Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022
ph. 650.691.1200
chiatt@openspace.org

MANDATORY PRE-PROPOSAL MEETING
A mandatory pre-proposal meeting has been scheduled for Tuesday, July 26, 2016, from 10:00am to noon at the District’s Administrative Office at 330 Distel Circle, Los Altos, CA. Please RSVP to Casey Hiatt, for this meeting by July 20, 2016. Only those firms who have a representative attend this meeting will be considered for this RFQP. Proposals for this RFQ will be returned unopened to firms who do not attend the mandatory pre-proposal meeting.

PROJECT DESCRIPTION

Introduction

Brief Description of the Project
The District is seeking the professional support of a Consultant to design and implement an Enterprise Geographic Information System that addresses but that is not limited to the following:

- Consolidates, validates and integrates Midpeninsula Regional Open Space District’s geospatial data with required business driven tabular data.
- Improves GIS services and workflows
- Increases data access across the agency
- Improves data archiving process
- Converts and migrates existing “file-based” data (MS Access, File GDB, and .shp files)
• Supports mobile and web GIS
The system should also be designed to interface with upcoming COTS based business systems such as an Asset Management System.

The District has budgeted approximately $160,000 for professional services in FY 2016/17 and has additional funds for software and infrastructure upgrades. Anticipated project completion date is June 30, 2017.

Background
The Midpeninsula Regional Open Space District was established in 1972. Today the District encompass an area of 556 square miles in northern Santa Clara and southern San Mateo Counties and a small portion of Santa Cruz County; and manages over 60,000 acres of land in 26 open space preserves that include some 225 miles of trails open to the public. The District has 120 employees with a mission:

To acquire and preserve a regional greenbelt of open space land in perpetuity; protect and restore the natural environment; and provide opportunities for ecologically sensitive public enjoyment and education.

Over the past several years the District has undergone extensive planning efforts that have resulted in a community-inspired Vision Plan that effectively changes the trajectory of the organization. Over the next 30 years, the District anticipates growing to over 100,000 acres of preserved land with over 400 miles of trails. The District is in the process of changing how business is done, including how it organizes the work of the organization, the number of staff, and an increased use of business and information systems.

To align with this new direction, the District completed an IT Master Plan in late 2015. The IT plan included a strong GIS component and provided a preliminary assessment of the District’s GIS needs. The plan recommends an Enterprise GIS System to improve data access across departments, support mobile and web GIS, increase data security and integrity, improve archiving, replace existing MS Access databases, and interface with upcoming business systems such as the Asset Management System.

The existing GIS Services Program consists of a GIS Administrator, two GIS Technicians, and a part-time GIS Intern. Two dozen additional District employees have some level of GIS experience and access licensed desktop application software installed on their local machines. The District’s centralized geospatial data is primarily in vector shapefile and file geodatabase format and accessed via a shared network drive connection within the administrative office, however, poor connectivity in four rural field offices prohibits server access and limits productivity.

Almost all geospatial requests are handled by the GIS Services Program. The GIS program provides data, analysis, and highly detailed cartographic products to the entire District and assists
in a significant percentage of District projects. This results in an ever-increasing request load and a back-log of geospatial data collection and development. The District would like to develop a GIS self-service model, where non-GIS staff members have access to geospatial data through web-maps and the ability to update and maintain their own data.

In addition, there are growing demands for greater remote access and web-based GIS to allow for an expanded and robust data collection and asset tracking in remote and semi-disconnected environments. This may include deploying a fleet of tablets and utilizing offline editing in GIS mobile applications. Furthermore, the recently completed IT Master Plan concluded numerous large-scale business systems are to be purchased and implemented over the next several years, including Asset Management System, Capital Improvement Tracking Management System, and Electronic Document Management System, with each application requiring integration with Enterprise GIS.

**Current GIS Infrastructure and Licensing**
District GIS users primarily utilize ArcGIS for Desktop 10.3.1 at the Basic license level, but the GIS Program Services staff employ Advanced licenses and additional extensions (e.g. Spatial Analyst, 3D Analyst, Network Analyst). The GIS Services Program administers an ArcGIS Online organizational account and is currently acquiring ArcGIS for Server Enterprise Advanced (Windows) Up to Four Cores.

The District’s client infrastructure consists of mobile workstations operating with Windows 10 and Microsoft Office 2016/Office 365. The District’s server infrastructure currently operates a mixed Windows 2008 R2 and Windows 2012 R2 platform. By Q4 2016, this infrastructure is expected to migrate to virtualized Windows Server 2016 platform on VMWare ESXi hosts.

**Project Requirements**
The Consultant will be tasked to design and implement an Enterprise GIS that meets the following high level requirements:

- A centralized enterprise geodatabase that consolidates the District’s existing GIS data with tabular business data
- Data architecture that supports existing reporting and data workflows and allows for integration with major cartographic products and future business systems (e.g. work order and asset management)
- Improves GIS data workflow and data management practices
- Enables mobile field data collection in a disconnected environment that allows for later connect of field crew data to the Enterprise GIS.
- Web GIS that delivers geospatial data to specific departments and business groups (e.g. Natural Resources, Planning, Real Property, and Land and Facilities).
SCOPE OF WORK
The District anticipates a project approach that includes activities outlined below, however, proposers should develop a work plan they believe will most effectively meet the District’s objectives for successfully implementing Enterprise GIS technology.

Phase 1: Requirements & Design
This phase should provide a clear understanding of the current conditions of GIS at the District, existing geospatial data and workflows, geospatial data gaps, and current and future GIS business requirements. The 2015 IT Master Plan can serve as a resource for this phase. This task will focus on:

Data Inventory
Evaluate core GIS datasets for completeness and detail to ensure that it is sufficient for supporting the District’s newly proposed as well as future planned business needs (e.g. asset management system) and identify potential data efficiency improvements (e.g. data normalization/data architecture). The District’s existing major cartographic products should be taken into consideration during this process. Deliverables should include:

- Gap analysis of existing GIS and tabular business data
- Resulting notes, suggestions and plans from an interagency data collaboration workshop to ensure data architecture integrates with partner agency data (e.g OpenTrails)

Business Requirements
Gather and recommend business requirements for a District wide Enterprise GIS by conducting project team interviews. Interviews should include but are not limited to discussions about data access needs by business user, data integration points with current and future business systems, and data workflow/evaluation. Deliverable should include:

- Requirements document with an executive summary that can be used to garner support from the District executive staff
- Workflow Enhancement Document

Systems Design
Design the systems architecture/infrastructure to include hardware, software, security requirements and network communication capacity to support Enterprise GIS implementation. Deliverables will include:

- Systems architecture diagram and a list of hardware, software, security requirements, and infrastructure resources to support Enterprise GIS
- Proposed conversion of MS Access applications and data to include updated model to support GIS business requirements
**Data Model Design**

Data design should focus on the development of an integrated data model that supports current and future business needs and is optimized for performance. Deliverables will include:

- Entity relationship diagram (based on conceptual modeling)
- Logical data model
- Physical database model based on MS SQL Server RDBMS (tabular) to ArcSDE (spatial) components. This should include GIS specific domains and sub-types. The District’s major cartographic projects should be supported in this effort.
- GIS Topology rules
- QA/QC data checks based on Department data requirements (see department lists, above) to facilitate and promote data stewardship through effective application development.
- Proposed data services to be published through ArcGIS Server to support proposed applications.
- Plan for distributed data to/from remote field offices and mobile personnel
- Accompanying detailed permission schema and reconciliation plan

**Application Design**

Design of District GIS web viewer(s) as well as a mobile data collection application(s) that utilizes distributed GIS data to the greater agency, enables GIS “self-service”, and provides data access to the public. The design will directly incorporate the business requirements and required data model components. Deliverables will include:

- Design document that outlines the architecture
- Proposed coding language to be used
- Prototype or “wireframe” of the applications
- Mobile field data collection deployment plan

**Phase 2: Project Planning & Timelines**

From the observations made in Phase I, this phase should present an Enterprise GIS Implementation Plan that includes but is not limited to the following:

- Testing Plan with performance targets
- Timeline that includes:
  - Workflow Enhancement Implementation
  - Systems Design Implementation
  - Data Model Implementation
  - Application Implementation
  - Testing Plan Implementation
- Priorities for:
  - GIS data layer updates
  - Department-centric GIS web applications
Phase 3: System Build & Configuration
This phase will focus on applications and data model build-out as well as on-site consultant configuration and testing of the Enterprise GIS System. All aspects of the systems build and configuration phase will be documented.

System Build
The following tasks should take place during the systems build process. Provision Server Environments for Development, QA, Production, and DMZ. Install and configure MS SQL Server, ArcGIS for Server, ArcGIS Portal, and Web Adaptor components. Deliverables will include:

- Built and configured system that meets requirements identified in the Systems Design component
- Documentation on the architecture and system’s configuration and build.

Data Migration
Data migration will focus on an onsite migration of existing shapefiles and integrated tabular business data into the centralized geodatabase and MS SQL Server using the data model developed in Phase 1. In addition, required data services will be published. Deliverables will include:

- Functioning and populated centralized geodatabase
- Service architecture built on ArcGIS Server Enterprise
- On-site testing to ensure client/DB communication/connectivity
- Metadata for each dataset in the geodatabase
- Data with ensured quality and referential integrity
- A built-out dataset framework—including subtypes and domains, for future data collections
- Published data/geo-processing services that support Web and Mobile applications

Application Development
Application development will focus on the development of priority GIS web viewer(s) and Mobile Field Data Collection application(s). Deliverables will include:

- Fully functioning GIS web viewer(s) (public and internal)
- Fully functioning mobile field data collection application(s) that work in a disconnected environment as outlined in the design phase.

Phase 4: System Testing & QA/QC
This phase will ensure the system meets performance targets and that all aspects of the database and application build are configured properly. Deliverables will include:
- Development of test scripts for all identified user groups
- Testing of read/write access of GIS clients to enterprise DB
- Testing of disconnected mobile field data collection, implementing the agreed upon data distribution model from Phase 2
- Integration with current reporting standards, existing business systems, and major cartographic products, and that meets the Systems Design outlined in Phase 1
- Successful User Acceptance Testing based on Requirements and Planning Phase.
- Final testing report

**Phase 5: Final System Delivery**

System delivery and “Go Live”. As the system moves to a production system, the consultant will conduct on-site trainings for the identified user groups and provide final system documentation. Deliverables will include:

- Final systems design/documentation—taking into account modifications from original Phase 1: Requirements & Design
- Creation and Assignment of appropriate GIS Server as well as DB user, roles and permissions
- Workflow diagrams
- Fully functioning enterprise GIS including integrated data model as agreed to from Phase 1: Requirements & Design
- Fully functioning web applications for web viewer(s) as well as data collection application(s) per Phase 1: Requirements & Design
- Delivery of training sessions for IT and GIS staff on systems administration
- Delivery of training sessions providing an overview of the new Enterprise GIS
- Delivery of training sessions for end-users for the GIS web viewer application(s) and mobile data collection application(s)

**SUBMISSION REQUIREMENTS**

Please keep proposals to no more than twelve pages, not including team descriptions.

- **Proposed Approach**
  Provide a description of how the project team intends to complete the work, including a detailed list of the necessary tasks to complete the project

- **Team Description**
  Provide a description of the team that addresses the following:

  - **Project team structure**
    Provide an organizational chart or description of the probable team. Include all key project team members and explain their role and responsibility throughout the project. Identify the project team members who are the daily contacts.
Prior experience
Provide a summary of the background and specific pertinent expertise of key personnel, as well as a statement of their time commitment to the project. Include examples of the project team’s previous experience with comparable projects. Examples should emphasize projects that design and build an Enterprise GIS that is web and mobile enabled. Experience with GIS-enabled asset management systems is highly desired. Include descriptive information such as the character of the project, the scope of involvement, location of the project, and the completion of the project. Project teams are encouraged to include illustrations or photographs of work designed and/or developed by team members. Provide a description of the firm’s method of, and experience in, controlling project costs and schedules.

References
Provide a list of at least three current references that have relevant knowledge concerning the project team’s ability to manage similar projects and off similar or like organizations to the District. Names, affiliations, addresses, and current telephone numbers of all references must be provided.

Qualifications
Provide a biography describing the project team members’ individual qualifications and history, years in business, location(s), legal structure, ownership, organizational structure and key staff who would be committed to this project.

**Project Fee**
Provide a detailed estimated fee proposal that is itemized by phase components. The fee proposal should include all anticipated reimbursable expenses as a separate line item, the charge rates of the people who would perform the work (please identify tasks to be performed by sub-consultants), and a standard hourly rate schedule. Provide a description of the key assumptions used to calculate the project fee. If appropriate, identify cost saving strategies as well.

**Insurance Requirements**
Provide a statement of the firm’s acceptance of the District’s insurance and indemnification requirements, or any reservations the firm has with the requirements. Please see attached Midpeninsula Regional Open Space District Draft Agreement for Professional Services.

**SELECTION PROCESS**
This Request for Proposals is being distributed to firms who have come to our attention based on the quality of their work, and it is posted on the District website for wider dissemination in order
to elicit proposals from interested and qualified firms. Proposers may be asked to make a general presentation of their plan to a selection committee and/or attend an interview. The selection committee reserves the right to have discussions with any or all of the proposers. The District will make a recommendation to the Board of Directors for approval of the consultant contract.

**Evaluation Criteria**
The goal for each firm should be to prepare a proposal that is comprehensive. The proposal should describe how the proposing firm would fulfill both the project requirements, as well as the financial requirements and overall business approach. The Teams are encouraged to specify their design and implementation strengths. The District places special emphasis on quality control with regard to the physical plan; proposers should provide clear information on how this goal will be met. Once the proposals are received, the selection committee may require clarification and additional information. The proposals will be evaluated according to the criteria listed and described below. The order of the criteria listed below does not reflect a hierarchy for the final selection.

**Quality of Proposal**
- Consistency with the objectives
- Demonstrating an understanding of the project
- Fulfilling proposal requirements as described in this RFP
- Overall presentation

**Implementation Approach**
- Organization, structure and responsibilities of the project team
- Proposed approach
- Proposed strategies to reduce time and costs

**Implementation Expertise**
- Proven track record, the technical ability of the team to accomplish the District's goals
- Background, qualifications, experience and expertise of the firm in similar projects

**Additional Considerations**
- Ability to perform the specific tasks outlined in the RFP.
- Reasonableness of the fee requested to do the work; comparability of fee to similar services offered by other qualified consultants.
- The selection of the team will not be based solely on the "lowest bid." Instead, the District intends select the best overall proposal package to achieve the project goals.

**RFP and Contract Award Schedule**
The following is a tentative schedule that is subject to change. The District will inform all teams of changes in the schedule by email.
<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>RFP Issued</td>
<td>7/11/2016</td>
</tr>
<tr>
<td>Mandatory Preproposal Meeting</td>
<td>7/26/2016</td>
</tr>
<tr>
<td>Proposals due</td>
<td>8/11/2016</td>
</tr>
<tr>
<td>Proposal Evaluations/ Reference Checks</td>
<td>8/12/2016-8/24/2016</td>
</tr>
<tr>
<td>Consultant Interviews for Top/Most Qualified</td>
<td>8/29/2016 – 9/2/2016</td>
</tr>
<tr>
<td>District Board Approval</td>
<td>10/12/2016</td>
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<tr>
<td>Project Start Date</td>
<td>11/1/2016</td>
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<tr>
<td>Project End Date</td>
<td>06/30/2017</td>
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</tbody>
</table>

**STIPULATIONS**

Interviews and Requests for Additional Information from the District

The District reserves the right to conduct personal interviews or require presentations of any or all proposers prior to the selection. The District reserves the right to request more detailed information from one or more proposers to provide for a reliable comparison between proposals.

**General Stipulations**

The District is not responsible for any expenses which proposers may incur in preparing and submitting the proposal. The District will not be liable for any costs incurred by the proposers that are related to the RFP process; this includes production of the proposal, interviews/presentations, travel and accommodations. The District reserves the right to request or negotiate modifications to the proposals that are deemed appropriate. All proposals received from proposers in response to this Request for Proposal will become the property of the District and will not be returned to the proposers. In the event of contract award, all documentation produced as part of the contract will become the exclusive property of the District. The District reserves the right to reject any and all proposals and to waive minor irregularities. The District also reserves the right to seek new proposals or re-advertise if responses have not been satisfactory or for any other reason.

**Requests for Additional Information and Questions**

Specific questions related to the RFP must be addressed in writing to the District. Answers will then be distributed to all teams. Additional and updated information will be provided to the teams via email and correspondence. Please submit all requests to:

Casey Hiatt – GIS Program Administrator  
Midpeninsula Regional Open Space District  
330 Distel Circle  
Los Altos, CA 94022
PUBLIC RECORDS AND PROPRIETARY INFORMATION, INDEMNIFICATION

The District recognizes that proposers will occasionally believe that all or portions of their proposals are confidential or proprietary. This can present problems in participating in a public agency RFP process. All proposals, strategies, supporting information, rate schedules and other information and documents are presumptively public records under the California Public Records Act (Gov’t Code section 6250 et seq.), subject to prompt disclosure upon request by any member of the public.

The District is not soliciting, does not wish to receive, and will not treat any information received under this proposal as proprietary or confidential information, unless specifically called for or expressly accepted by the District General Counsel in writing, and will be accepted and considered only when, in the sole discretion of the District it is necessary to serve the public purpose of the project. If the inclusion of confidential or proprietary information is determined to be necessary to the proposal, proposers must identify each and every specific item and each and every page, and segregate the information into a separate envelope or electronic file labeled conspicuously as confidential, with a cover page describing the information and applicable law exempting the same from disclosure. Any material marked or claimed as confidential or proprietary may be returned to the proposer by the District or destroyed and may not be considered in the review of proposals if the claim does not appear justified or would inhibit the public purposes of the project proposed.

If the documents have been properly marked and expressly accepted as confidential and proprietary in writing by the District General Counsel, the District will make its best effort to advise the proposer of any Public Records Act request, should any be received, seeking documents claimed to be confidential or proprietary, to give the proposer an opportunity to take legal steps to protect such property from disclosure to third-party requester. The District expressly disclaims any duty and will not defend the confidentiality or proprietary nature of any information submitted. By submitting any confidential or proprietary information to the District, the proposer agrees to holds harmless and indemnify and defend the District and its officers, employees, and agents for any and all costs, including attorney’s fees, incurred by the District or awarded to a Public Records Act requester relating to a request for release of proposer’s data should the proposer ask the information to be handled as proprietary or confidential.

LIST OF ATTACHMENTS
Professional Services Contract Template