

This document is a draft Scope of Services/Technical Specifications for a future competitive contract Miami-Dade County anticipates entering into. Scope of Services/Technical Specifications is subject to change without notice.

This is not an advertisement.

Miami-Dade County, Florida

Project Title: BIM & GIS Readiness Assessment

SCOPE OF SERVICES

1. Project Background and Purpose

The Miami-Dade Aviation Department (MDAD) is embarking on a strategic initiative to elevate its operations through the seamless integration of Building Information Modeling (BIM) and Geographic Information Systems (GIS). MDAD seeks specialized consulting services that transcend the ordinary as part of this transformative effort. The purpose is to establish a robust BIM/GIS Enterprise Framework to revolutionize the department's asset management, infrastructure planning, and resource optimization approach.

The primary objectives are to conduct a comprehensive functional analysis, identify gaps and strategic solutions, perform a needs assessment and operational Enhancement, develop a staffing structure comparison and skill alignment, and obtain a roadmap and recommendations for Excellence.

2. Consultant Qualifications

MDAD's Innovation Division requires a consultant with proven expertise in:

- Developing and implementing GIS policy requirements and governance frameworks in airports or transportation organizations.

Bidders must demonstrate

- Prove experience within aviation or transportation
- Successful implementation of BIM / GIS frameworks in similar organizations (references required).
- Approach, strategies, and expected results for this project.

3. Tasks

The scope of consulting services under this contract will include a comprehensive analysis of several functional areas. The main objective is to identify gaps, develop strategies to address the division's needs, and enhance operations. Deliverables will include a detailed gap analysis report with recommendations for improvement and an implementation plan for an integrated geospatial platform.

A. Gap Analysis and Staffing Review

Objective: Identify gaps and inefficiencies in the current BIM/GIS Enterprise integration and staffing structure.

- i. Analyze current workflows, data exchange processes, and user experiences.
- ii. Compare existing staffing structure and job descriptions with industry best practices for similarly sized airports.
- iii. Assess required expertise for each functional area within the GIS Division (administration, data management, analysis, system administration, user support, etc.).
- iv. Evaluate alignment between staffing structure, skill sets, and user needs.

B. Recommendations and Improvements

Objective: Develop actionable recommendations for improving integration, enhancing operational efficiency, and strengthening GIS governance.

- i. Develop strategies to address identified gaps and inefficiencies.
- ii. Recommend improvements to GIS governance structure and policies for future growth.
- iii. Suggest staff development and training programs to support recommended changes.

C. Enterprise GIS Data Review

Objective: Assess the quality, organization, and utilization of existing enterprise GIS databases.

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- i. Evaluate data quality, quantity, organization, and completeness.
- ii. Review data maintenance workflows and identify potential improvements.
- iii. Analyze database organization and configuration (standalone databases, data ownership, versions, replication).
- iv. Recommend database tuning and performance optimization strategies.
- v. Review and suggest improvements to storage, backup, and recovery strategies.
- vi. Identify opportunities for data consolidation to minimize redundancy.
- vii. Recommend strategies for data interaction with non-spatial business systems.
- viii. Conduct a gap analysis identifying data assets and information architecture required for future initiatives.

D. Airport Enterprise Integrated GIS Implementation Plan

Objective: Develop a comprehensive plan for implementing an integrated geospatial platform, leveraging data from various sources.

- i. Outline a strategy for integrating Electronic Record Drawings Management, CADD, GIS, BIM, and LIDAR with Draped Imagery into a single source of truth.
- ii. Specify how the plan will support both Autodesk and Esri tools for data updates, exports, map creation, analysis, and services.
- iii. Define the use of middleware technologies to develop airport Digital Twin capabilities, including BI and AI functionalities.
- iv. Address the Aviation Department's priority near-term business requirements:
 - a) Project record drawing management
 - b) Construction logistics support
 - c) Facilities maintenance and IT work order support
 - d) PROPworks lease management support
 - e) Part-139 inspections and SMS
 - f) Elevator inspections

4. Work Order Term

The term of the Work Order shall commence on the first calendar day after the award of the WOPR and terminate on the last day of the twelfth (12th) month.

5. Payment Schedule

Invoicing shall be submitted based on work completed. Payment shall be made after completion of all tasks for each phase invoiced, following delivery and acceptance of all deliverables for said invoice. Payment shall be made after completion of all tasks, following delivery and acceptance by the County of all deliverables for said invoice.

- A. Gap Analysis and Staffing Review - 25% of total engagement
- B. Recommendations and Improvements - 25% of total engagement
- C. Enterprise GIS Data - 25% of total engagement
- D. Airport Enterprise Integrated GIS Implementation Plan - 25% of total engagement

The County, at its sole discretion, may decide to engage in one or any combination of the phases described herein. Completion of the services shall be measured as fulfillment of all services requested for any phase, including submission to, and final acceptance by the County of any deliverable for action. Proposers may propose milestones for each phase and associated values to allow for partial payments in each phase, not to exceed the total allowable percentage per phase.

Payment of the services rendered will be scheduled monthly, upon completion of the tasks for that month.

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6. Optional Additional Services

The selected Proposer shall perform additional related services as may be requested by the County, including, but not limited to those defined herein. Additional services will be paid at the hourly rates proposed in the awarded Consultant's price Proposal Schedule.

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