

Memorandum



Date:

To: Honorable Daniella Levine Cava
County Mayor

From: Margaret Brisbane, Director
Information Technology Department

Subject: Request to Advertise for Aerial Photography, photogrammetric mapping,
topographic, and Light Detection and Ranging (Lidar).

Recommendation

This Request to Advertise (RTA) for Consultant Selection has been prepared by the Information Technology Department (ITD) and is recommended for approval pursuant to Section 2-8.1 of the Code of Miami-Dade County.

Scope

PROJECT NAME: Aerial Photography, photogrammetric mapping, topographic,
and Light Detection and Ranging (Lidar).

SPD PROJECT NO: E23IT01

CONTRACT NO: (User Department's Contract No.)
(IF APPLICABLE)

PROJECT DESCRIPTION: The scope of this project includes but is not limited to: to assist the Information Technology Department (ITD) with the ongoing need for professional services for aerial and orthophotography, photogrammetric, topographic, planimetric mapping, and Light Detection and Ranging (LiDAR) services to maintain GIS data, applications and GIS services provided by the Geospatial Technologies Division to countywide users and departments. Orthophotography and planimetric updates have been contracted by ITD since 1999. They have a reoccurring schedule: yearly in case of the orthophotography and every 2-3 years in case of planimetrics, and LiDAR projects.

Services also include, but are not limited to, the update of GIS data such as parcel and street data editing, updates to countywide 2D and 3D buildings, edge of pavement, railroad, water bodies, and many others, as detailed in the Scope of Work, attached.

Lidar data will be used to perform high accuracy maps and 3D modeling for studies including sea-level rise, storm surge, inundation maps, and environmental studies, such as identification of pervious and impervious surfaces, tree-canopy, etc.

The GIS coverage areas are project-specific and will extend throughout Miami Dade County, approximately 2428 square miles, except for special cases where small areas of neighboring counties may be required.

Data delivered must be compatible with ITD's GIS enterprise geodatabase and software versions.

**PARTICIPATION
RESTRICTIONS:**

**PROJECT
LOCATION:** Miami Dade County

**PROJECT
SITES:**

<u>SITE #</u>	<u>LOCATION</u>	<u>DIST.</u>	<u>ESTIMATE</u>	<u>T-R-S</u>
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**PRIMARY
COMMISSION
DISTRICT:** All? districts.

**CONTRACT AWARD
PATH:** BCC
(BCC OR MAYOR'S
AUTHORITY)

USING DEPARTMENT: Information Technology Department (ITD).

**MANAGING
DEPARTMENT:** Information Technology Department (ITD).

Fiscal Impact/Funding Source

FUNDING SOURCE(S):

<u>SOURCE</u>	<u>PROJECT#</u>	<u>AMOUNT</u>	<u>COMMENT</u>
ITD's Internal Services Funds		<u>TBD</u> \$2,700,000.00	

PTP FUNDING: N/A

GOB FUNDING: N/A

**CAPITAL BUDGET
PROJECTS:**

<u>CAPITAL BUDGET PROJECT # - DESCRIPTION</u>	<u>AMOUNT</u>
N/A	

**PROJECT TECHNICAL
CERTIFICATION
REQUIREMENTS:**

<u>TYPE</u> <i>(Prime, Subs, Lead A/E, Other)</i>	<u>Code</u>	<u>Description</u>
PRIME	15.01	Surveying and Mapping – Land Surveying
PRIME	15.02	Surveying and Mapping – Aerial Photogrammetry

CONTRACT PERIOD: Four (4) years.

CONTINGENCY PERIOD: N/A

OPTION-TO-RENEW: *(Applicable to PSAs only)*

Three (3) separate one (1) year Option To Renew (OTR).

**ART IN PUBLIC
PLACES:**

YES/NO NO

(CODE SECTION 2-11.15)

BASE ESTIMATE: \$2,700,000.00

**CONTINGENCY
ALLOWANCE:**

**TYPE
PSA PERCENT
10%**

**AMOUNT
\$270,000**

COMMENT

**(SECTION 2-8.1
MIAMI-DADE COUNTY
CODE)**

**TOTAL DEDICATED
ALLOWANCE:**

PERMIT FEES: N/A

**REIMBURSABLE
EXPENSES:**

N/A

FOR MDAD PROJECTS ONLY:

**INSPECTOR GENERAL
FEE REIMBURSEMENT
(IF APPLICABLE): N/A**

TOTAL AMOUNT: \$2,970,000.00

**INSPECTOR GENERAL
FEE INCLUDED IN BASE CONTRACT:**

(ORDINANCE 97-215) YES/NO YES

**SEA LEVEL RISE:
(ORDINANCE 14-79)**

YES/NO NO

SUSTAINABLE

BUILDINGS ORDINANCE: YES/NO NO
(I.O. NO. 8-8)

MINIMUM QUALIFICATIONS EXCEED LEGAL REQUIREMENTS: (RESOLUTION NO. R1401-97)
YES/NO NO

It is preferred that the Prime Consultant demonstrates the successful completion of one (1) project comparable in size and complexity within the last ten (10) years from the date of this solicitation for the following services:

1. Capturing and producing high resolution orthophotography covering areas similar in size to Miami Dade County and urban areas with a high density of high-rises such as downtown Miami.
2. Capturing and classifying Lidar data quality level 1 (QL1) or better, in areas of over 500 sq miles with pockets of high-density skyscrapers.
3. Developing hydro-flattened Digital Elevation Model (DEM) from Lidar point-cloud data for areas over 500 sq miles.
4. Developing line or polygon planimetric layers from orthophotography for areas over 500 sq miles.
5. Provide Lidar data and aerial/ortho photography captured simultaneously where cameras and lidar sensors are mounted in the same aircraft and operated in-sync during the collection flights.

SBD REVIEW COMMITTEE: **MEETING DATE** **SIGNOFF DATE**

SBD REVIEW COMMITTEE ASSIGNED CONTRACT MEASURES:

<u>TYPE</u>	<u>GOAL</u>	<u>COMMENT</u>
(SBE/A&E, SBE/CONS, SBE/G&S, CWP, DBE)	T.B.D by SBD	

APPLICABLE WAGES: (RESOLUTION R-54-10) **YES/NO** **T.B.D by SBD**

RESPONSIBLE WAGES: (CODE SECTION 2-11.16 AND IMPLEMENTING ORDER 3-24) **YES/NO** **T.B.D by SBD**

LIVING WAGES: **YES/NO** **NO**

(CODE SECTION 2-8.9 AND ADMINISTRATIVE ORDER 3-30)

**BUY AMERICAN IRON & STEEL
PROCUREMENT PROGRAM:** YES/NO NO
(CODE SECTION 2-8.2.6.1)

**MANDATORY
CLEARING HOUSE:** YES/NO (Applicable only to Design-Build) NO
(RESOLUTION R-1395-05)

**RESIDENTS FIRST TRAINING
AND EMPLOYMENT:** YES/NO NO
(CODE SECTION 2-11.17 AND
IMPLEMENTING ORDER 3-61)

**FIRST SOURCE HIRING
REFERRAL PROGRAM:** YES/NO NO
(SECTION 2-2113 OF
THE COUNTY CODE)

IN-HOUSE CAPABILITIES: YES/NO NO
(RESOLUTION NO. R-1204-05)

Many of the services requested in this solicitation require special equipment and/or expertise not available at ITD. Equipment such as aircraft(s) and specialized sensors mounted on their body such as imagery and/or lidar sensors are needed.

There is also the need for airplane pilot(s) and technicians to operate them, as well as specialized professionals in photogrammetry to perform the orthophoto production, development of planimetric layers, and for the acquisition and classification of Lidar data, etc.

**CONTRACT
MANAGER:** Mirta Lopez Cardoso

**PROJECT
MANAGER:** Mairim Avila

BACKGROUND: (Project Background, History and/or County's needs for project)

The Information Technology Department (ITD) requires ongoing professional services for aerial and ortho photography, photogrammetric, topographic, planimetric mapping, and Light Detection and Ranging (LiDAR) to enable the Geospatial Technologies Division to continue to provide GIS data and services to countywide users and departments.

Orthophotography and planimetric layers have been part of the data collected and provided to all county departments since 1999. LiDAR data has been collected with

a regular frequency since 2015. These services are fundamental to maintaining countywide GIS data, applications, and GIS services provided by the Geospatial Technologies Division to many departments; and are in alignment with the County's strategic plan and the “four E’s” introduced by Mayor Levine Cava that has been guiding her administration: Equity, Economy, Environment, and Engagement.

DEPARTMENT SELECTION COMMITTEE RECOMMENDATIONS:

Committee Member and Title	Year Hired	Gender/Ethnicity	Education	Professional Licenses.
Mairim Avila (IT Senior Systems Administrator)	2001	Female/Hispanic	Bachelor of Science in Computer Science Master of Science in Management of Information Systems	-
Josh Brashears (IT Manager)	2001	Male/Caucasian	Bachelor of Science in Geography/GIS	-

(Alternate, in case the above cannot serve) –

Committee Member and Title	Year Hired	Gender/Ethnicity	Education	Professional Licenses.
Ammad Riaz (Chief Aviation Planning, MDAD)	2005	Male/Asian	Bachelor of Science in Civil Engineering	Professional Engineer

First and Last Name (Technical Advisor) - OPTIONAL for NTPCs
N/A

DEPARTMENT
FINANCE: ITD Finance Department _____ **DATE** _____

CHARTFIELD CODES:

Dept: IT06010100, Fund: G6001, Acct: 5244800000, Grant: NO_GRANT.

BUDGET
APPROVAL

FUNDS AVAILABLE: _____
OMB DIRECTOR DATE

APPROVED AS TO
FORM AND LEGAL
SUFFICIENCY: _____
OFFICE OF COUNTY ATTORNEY DATE

APPROVED
PURSUANT TO
SECTION 2-8.1 OF
THE MIAMI-DADE
COUNTY CODE: _____
MAYOR OR DESIGNEE FOR SPD A/E DATE

CLERK: _____
DATE