

**SCOPE OF SERVICES
FOR
SURVEYING SERVICES - 2020 IDIQ**

I. INTRODUCTION

The Coastal Protection and Restoration Authority (CPRA) is responsible for planning, designing, evaluating, permitting, implementing, maintaining, operating, and monitoring Coastal Restoration and Flood Protection projects in the Louisiana Coastal Zone. The proposed Indefinite Delivery/Indefinite Quantity (IDIQ) contracts will provide for surveying services on projects initiated by CPRA.

II. SCOPE OF WORK

Consultants will perform surveying and related services for CPRA projects on an **as needed, Task Order basis**. Consultants will be required to execute a Task Order which will specify the scope of services, task schedule, and compensation. Each Task Order will become a part of the IDIQ Contract.

Consultants will be required to provide some or all of the following services for each Task Order.

A. Services Required

The specific services consist of the following:

- 1) Topographic Surveys. Conduct surveys to determine the horizontal and vertical position of existing natural features (ground elevations, bodies of water, vegetation, etc.), and constructed features (levees, roads, pipelines, utilities, drainage structures, buildings, etc.) within a specified area.
- 2) Bathymetric and Hydrographic Surveys. Conduct surveys to determine the shoreline and depths of bays, tidal inlets, and other bodies of water within the project area.
- 3) Magnetometer Surveys. Conduct magnetometer surveys to locate pipelines, obstructions or anomalies as necessary to clearly define borrow areas, flotation access channels or dredge fill areas.
- 4) Geophysical Surveys. Conduct surveys utilizing side scan, sub bottom acoustic sonar, and seismic sub-bottom profiling to facilitate geophysical and archeological investigations.

- 5) Benchmarks. Establish Secondary benchmarks, both temporary (surface monument) and permanent (deep rod driven to refusal), as described by the latest CPRA GPS guidelines and as required to carry out field survey work.
- 6) Maps, Cross-Sections, and Data Sets. Provide surveying and engineering services to produce plan drawings, topographic and contour maps, cross sectional diagrams, and data sets.
- 7) Property and Right-of-Way Surveys. Conduct surveys suitable for the determination of property lines and corners and the preparation of Legal Descriptions, Property, and Right-of-Way Maps. These surveys will be used to define project boundaries and for the acquisition of property needed for project construction.
- 8) Control Accuracy Standards. Contractors must recognize and follow the recommendations and guidelines established in the latest CPRA GPS Guide for performing GPS Surveys & Establishing GPS derived orthometric heights.

B. Personnel and Equipment Requirements

- 1) General. Provide the survey crews, surveyors, engineers, office staff, and equipment necessary to accomplish the services as tasked by CPRA. Project sites can be located in remote marsh areas or barrier island areas requiring access to boats of different size and capability. Additionally, access to Global Positioning System (GPS) surveying equipment capable of performing static GPS surveying and real time kinematic GPS surveying, along with personnel trained in its use, are required. Typical requirements will include requesting site access from land owners prior to work being performed.
- 2) Land Surveyor Requirements. Surveying work accomplished under this Scope of Services will be performed in accordance with the laws and rules of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors.
- 3) Equipment. Provide the surveying instruments, vehicles, boats and other equipment best suited to accomplish the services required by CPRA.

C. Typical Deliverables

- 1) Plans shall be 11" x 17" size drawings bearing the seal of the responsible Professional Engineer or Professional Land Surveyor and may include:
 - <Topographic and contour maps
 - <Cross-sections
 - <Plan views (Overlay on aerial or satellite photography and the Lambert Conformal Conic Projection, Louisiana State Plane Coordinate System South Zone, NAD83 may be required.)
 - <Property and Right-of-Way Maps

Plans shall be submitted as directed by CPRA. Digital copies of plans shall also be submitted digitally in AutoCAD 2015 or newer (*.dwg) format, *.dwf and *.pdf formats.

- 2) Technical reports and memorandums.
- 3) Survey logs and field notes.
- 4) Progress reports.
- 5) Digital data sets listing all points, corresponding elevations, coordinates and descriptions shall be submitted in comma delimited ASCII format.
- 6) Progress reports.
- 7) Benchmark descriptions (data sheet, photographs, and GPS network benchmark report).

A specific list of deliverables, with reporting format requirements, will accompany each Task Order when issued. All deliverables shall be accompanied by a Letter of Transmittal.