

**SCOPE OF SERVICES
FOR
ENGINEERING SERVICES**

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 contracts will provide full service Engineering Services on projects initiated by CPRA. Work may be comprised of civil, structural, hydraulic, hydrologic, geotechnical, environmental, sanitary, electrical, mechanical, surveying, mapping, CAD and architectural design. Work may include, but is not limited to, engineering support for data collection, feasibility studies, numerical computer modeling, preparation of design reports, performing design analyses, value engineering, independent technical review, preparation of conceptual and contract drawings, contract specifications, cost estimating, construction contract administration and construction inspection services. Teaming is encouraged for Consultants submitting on these contracts. Under a proposed separate Request for Statement of Interest and Qualifications (RSIQ), additional contracts may be selected to perform limited engineering tasks not requiring the full service teams solicited herein. No timeframe is established yet for this proposed separate RSIQ.

A copy of the contract you will be required to sign if selected is attached. **Please review the contract prior to submitting your proposal. No requests for changes to the contract language will be considered.** Multiple contracts will be awarded as a result of this advertisement. Standardized rate sheets will be distributed to each Consultant selected from this advertisement. **Rate sheets will include a negotiated Office Rate and a Field Rate for each of the labor categories. The Office Rate shall be inclusive of all costs associated with labor, overhead, administrative costs, software, account management, and any other costs associated with the provision of services (including but not limited to standard equipment, computers, field sampling supplies, office supplies, copies, and routine safety equipment and materials). The Field Rate shall consist of the items described in the Office Rate plus be inclusive of lodging, travel and per diem. Rates for specialized equipment should be submitted on a separate schedule. Compensation to the Consultant for services rendered in connection with each Task Order shall be based on negotiated work-hours using established billable rates mentioned above for the actual work performed on the Task Order or a negotiated lump sum compensation.**

II. SCOPE OF WORK

Consultants will perform engineering 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 (Indefinite Delivery Indefinite Quantity) Contract.

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

A. Services Required

The specific engineering services for this contract consist of the following:

1. Coastal Engineering. Provide personnel and equipment needed to perform complex coastal engineering services such as but not limited to:
 - Engineering assistance with the design of unique coastal restoration projects including barrier island restoration, inlet stability, ridge restoration, marsh creation, hydrologic and hydraulic restoration, shoreline protection and freshwater and sediment diversions.
 - Utilization of hydraulic, morphological and hydrodynamic models to predict coastal, riverine and estuarine processes including, but not limited to, flow, circulation, wave climate, sediment transport and tidal influence.
 - Review and development of construction cost estimates and technical reports
 - Preparation of construction documents including plans, specifications and bid packages
 - Technical presentations
 - Interfacing with all engineering and scientific disciplines
 - Other coastal engineering tasks as assigned
2. Hydraulics and Hydrology Engineering. Provide personnel and equipment to analyze and design a wide array of coastal structures including weirs, culverts, water control structures, inlet and conveyance channels, and pump stations.
3. Structural Engineering. Provide personnel and equipment to analyze and design a wide array of coastal and flood protection structures including levees, shoreline protection and breakwaters, gated inlet and outfall structures, weirs, flap gated culverts and structural foundations. Designs could consist of structural steel, concrete, timber, fiberglass and soil.
4. Geotechnical Engineering. Provide personnel and equipment to provide all geotechnical services necessary to perform geotechnical investigations, analysis, and design. These services may include, but not limited to:
 - Geotechnical field investigations including both shallow and deep soil borings
 - Geotechnical laboratory testing and analysis
 - Preparation of soil boring logs
 - Geotechnical analysis and design based on data collected or data furnished by the CPRA
 - Construction related engineering services

5. General Engineering. Provide personnel and equipment to perform engineering design including, but not limited to:
 - General engineering and hydraulic studies
 - Analysis and manipulation of data sets and GIS software
 - Project scoping
 - Technical document development and review
 - Report preparation and presentation
 - Preparation of construction documents including plans, specifications and bid packages
 - Estimates of probable cost

6. Surveying Services. Provide personnel and equipment to provide all surveying services necessary to perform topographic, bathymetric and boundary surveying, develop right-of-way or servitude maps, and provide other existing site data. These services may include, but are not limited to:
 - Topographic and bathymetric surveying, 3D laser scanning, magnetometer surveys, and underwater acoustical imaging including both multi-beam and side scan hydrographic surveys
 - Property, boundary and servitude surveying
 - Construction related surveying services

7. Environmental and Permitting Services. Provide personnel to perform all environmental and permitting services necessary to obtain project permits. Required permits may include, but are not limited to:
 - Coastal Use permits (CUP) from the LA Department of Natural Resources
 - Wetland permits (404 and Nationwide) and Section 10 permits from the US Army Corps of Engineers
 - Water Quality Certification from the LA Department of Environmental Quality
 - Scenic Stream permits from the LA Department of Wildlife and Fisheries
 - Bridge permits from the US Coast Guard
 - Levee permits from various levee boards

8. Construction Administration and Inspection. Provide personnel and equipment to perform construction administration and inspection services on a wide array of coastal and flood protection projects. Duties may include, but are not limited to:
 - Contractor supervision and representation of owner
 - Resident inspection in remote locations
 - Review of daily work logs
 - Technical document development and review
 - Verification of pay requests

9. Program Management and Design for CDBG projects. Provide Program Management and Design Services for projects funded by the U.S. Department of Housing and Urban Development, Community Development Block Grant Program.

B. Personnel and Equipment Requirements

- 1) Engineer Requirements. Engineering work accomplished under this Scope of Services will be performed in accordance with the laws and rules of the State Board of Registration for Professional Engineers and Land Surveyors (LAPELS).
- 2) Equipment. Provide computer hardware, software and other equipment necessary to accomplish the services requested by the Department.

C. Typical Deliverables

- 1) Plans typically are 11" x 17" size drawings bearing the seal of the responsible Professional Engineer or Professional Land Surveyor and may include:

- <Elevation 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.)

Plans shall be submitted as directed by CPRA. Digital copies of plans shall also be submitted in AutoCAD 2014 or newer (*.dwg) format, *.dwf and *.pdf formats. All Plans shall be produced on CPRA standard title block.

- 2) Specifications (compatible with the CPRA standard format, hardcopy and digitally in MS Word and Adobe formats) and bid documentation.
- 3) Technical presentations
- 4) Technical reports
- 5) Progress reports
- 6) Data Collection Reports

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