



## TERMS OF REFERENCE FOR THE GEOTECHNICAL INVESTIGATION FOR THE PROPOSED CONSTRUCTION OF THREE (3) STOREY FIRE SUB-STATION AT BARANGAY STA. LUCIA

### 1.0 Objective

As stipulated in the National Structural Code of the Philippines (NSCP), for structures two storey with roof deck or basement or higher, an exhaustive geotechnical study be performed to evaluate in-situ soil parameters for foundation design and analysis. The primary consideration is to protect life, limb and property through the construction of structurally sound buildings that could withstand known geological hazards. Therefore, all city projects involving construction of buildings of two storey with roof deck or basement or higher shall be required for a conduct of geotechnical investigation of the project sites, which results of investigation shall be made primary consideration in the design of the building/s. With this, advance procurement of services to conduct geotechnical investigations shall be made integral part of project conceptualization.

### 2.0 Location

The proposed sites of the city's infrastructure projects where assessment and evaluation are necessary is located at Barangay Sta. Lucia in Quezon City. As per NSCP, it is recommended that a minimum of one borehole per two hundred, 200 m<sup>2</sup> of the structure's footprint be drilled to a depth wherein a suitable bearing layer is reached. The total number of boreholes per structure should be no less than 2 for structures whose footprints are less than 300m<sup>2</sup> and no less than 3 for those structures with larger footprints. For this project therefore, **2 boreholes** shall be made at spots identified in borehole location plan attached.

The City has the option to replace the site of the proposed project subject to mutual agreement between the City and the winning bidder.

### 3.0 Scope of Service

In hiring the services for the conduct of geotechnical investigations, the participating contractor, upon presentation of its credentials and experiences in the field and upon acceptance by the City, shall perform the scope of work as follows:

- a. Drilling of boreholes at specified sites
- b. Laboratory testing
  - Grain size analysis
  - Determination of moisture content
  - Attenberg limit test
  - Soil classification test
  - Unconfined compression test
  - Rock quality designation test

- c. Evaluation of test result
  - Settlement
  - Liquefaction & Seismic design content
  - Shallow foundation
- d. Recommendation for foundation design
- e. Preparation and submission to the City of the Geotechnical Investigation Report

**4.0 PROJECT STANDARD AND REQUIREMENTS**

- 1. The Prospective Bidders should have at least five (5) years experience.
- 2. Submission of the following Key Personnel and required qualification and experience:

QUANTITY	POSITION	TASK	REQUIREMENTS
1	Geotechnical Engineer	<ul style="list-style-type: none"> <li>Responsible for conducting geotechnical investigations, gathering information and reporting results of investigations and evaluations</li> </ul>	<ul style="list-style-type: none"> <li>Registered/Licensed Civil Engineer with specialization in the field of geotechnical engineering;</li> <li>At least 5-year experience on geotechnical investigation</li> </ul>
1	Drilling Rig Operator	<ul style="list-style-type: none"> <li>Facilitate the drilling/sampling on site</li> </ul>	<ul style="list-style-type: none"> <li>At least 5-year experience on geotechnical investigations.</li> </ul>
1	Drilling Rig Crew	<ul style="list-style-type: none"> <li>Performs physical task on site in drilling/sampling</li> </ul>	<ul style="list-style-type: none"> <li>At least 5-year experience on geotechnical investigation.</li> </ul>

- 3. As may be required by the city, the contractor shall submit relevant experience of the company including experiences and details of its technical personnel/engineers.

**5.0 Deliverables**

The participating contractor shall submit the individual Geotechnical Investigation Report per project with the following attachments within the prescribed number of calendar days of the work order issued by the City for the said project:

- a. Borehole location map, shown within the project boundary map at scale
- b. Final boring log
- c. Laboratory test results
- d. Drilling photos
- e. Geotechnical Summary Result

## **6.0 Proposed Budget for the contract**

The budget for this contract is pegged at Fifty Thousand Pesos (₱ 50,000.00) per required borehole. The total project amount is One Hundred Thousand Pesos (₱ 100,000.00)

## **7.0 Contract Duration**

The contract duration for the project shall be within Twenty (20) calendar days upon issuance of the Notice to proceed for the project.

## **8.0 Terms of Payment**

One-time payment upon completion of the project.

## **9.0 Contractor's Responsibility**

It is understood that all personnel (technical, engineers, operators etc.) logistical needs, machineries, and other operational cost necessary for the conduct of the geotechnical investigation test including insurances of the personnel will be for the account and responsibility of the contractor.

## **10.0 Penalties for Breach of Contract**

Failure to deliver the services according to the standards and requirements set by the City shall constitute an offense and shall subject the Contractor to penalties and/or liquidated damages pursuant to RA 9184 and its revised implementing Rules and Regulations.

## **11.0 Cancellation or Termination of Contract**

The City may, without prejudice to other remedies against the contractor, unilaterally cancel or terminate the contract, in whole or in part, due to default, insolvency or for justifiable cause or on any ground which it deems inimical to the City's or public's interest, which includes but not limited to the following:

- a. Failure of the contractor to provide/meet the necessary requirements as stated in this TOR and in other bidding/contract documents.
- b. Violation or non-performance of the other terms and conditions of the contract; and
- c. Other acts inimical to public interest

The Guidelines contained in R.A.9184 and its revised IRR shall be followed in the implementation and termination of any service contract. In the event that the City terminated the contract due to default insolvency, or for cause, it may enter into negotiated procurement pursuant to Section 53(d) of R.A. 9184 and its IRR.

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