



**TERMS OF REFERENCE
FOR THE
CONDUCT OF GEOTECHNICAL INVESTIGATIONS FOR VARIOUS
INFRASTRUCTURE PROJECTS (BATCH 6A)**

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 are located at different areas in Quezon City. As per NSCP, it is recommended that a minimum of one borehole per two hundred, 200 m² 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 300m² and no less than 3 for those structures with larger footprints. For this project therefore, 37 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 Project

The project scope of this services is to undertake geotechnical investigation of the following various proposed projects:

No.	Project Name	Project Location	No. of Boreholes
1.	Proposed Master Development Plan of Bagbag Cemetery at Barangay. Bagbag	Brgy. Bagbag	6 BH
2.	Proposed Construction of Three (3) Storey Multi-Purpose Sports Center Building at Barangay. Sto. Cristo	Brgy. Sto. Cristo	3 BH
3.	Proposed Master Development Plan for Teresa Heights Open Space	Brgy. Pasong Putik	10 BH

No.	Project Name	Project Location	No. of Boreholes
4.	Proposed Construction of Housing Facility at Sitio Kawayan, Barangay San Agustin	Brgy. San Agustin	8 BH
5.	Proposed Construction of QCitizen Homes Bagong Silangan Transition Housing	Brgy. Bagong Silangan	4 BH
6.	Proposed Construction of Six (6) Storey with Deck Multi-Purpose Building Park 9 at Barangay Loyola Heights	Brgy. Loyola Heights	4 BH
7.	Proposed Construction of Four (4) Storey with Deck School Building at San Jose Elementary School – Pag – ibig sa Nayon Annex	Brgy. Pag-ibig sa Nayon	2 BH
TOTAL			37 BH

4.0 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

5.0 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	Senior Geotechnical Engineer	<ul style="list-style-type: none"> • Overall guidance, direction, supervision and 	<ul style="list-style-type: none"> • Registered/ Licensed Civil Engineer with specialization in the

		coordination of members of the team	field of geotechnical engineering <ul style="list-style-type: none"> • At least 10-year experience on geotechnical investigation
2	Geotechnical Engineer	<ul style="list-style-type: none"> • Responsible for conducting geotechnical investigations, gathering information and reporting results of investigations and evaluations 	<ul style="list-style-type: none"> • Registered/Licensed Civil Engineer with specialization in the field of geotechnical engineering; • At least 5-year experience on geotechnical investigation
3	Drilling Rig Supervisor	<ul style="list-style-type: none"> • Oversee field operation using any equipment on site 	<ul style="list-style-type: none"> • With certificate of training related to geotechnical engineering field. At least 5-year experience on geotechnical investigation
3	Drilling Rig Operator	<ul style="list-style-type: none"> • Facilitate the drilling/sampling on site 	<ul style="list-style-type: none"> • With certificates of training related to geotechnical investigation. At least 5-year experience on geotechnical investigations.
3	Drilling Rig Crew	<ul style="list-style-type: none"> • Performs physical task on site in drilling/sampling 	<ul style="list-style-type: none"> • With certificates of training attended in geotechnical investigation. At least 5-year experience on geotechnical investigation.

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.

6.0 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

7.0 Proposed Budget for the contract

The budget for the contract as follows:

Line	Project Name	ABC
1.	Proposed Master Development Plan of Bagbag Cemetery at Barangay. Bagbag	₱300,000.00
2.	Proposed Construction of Three (3) Storey Multi-Purpose Sports Center Building at Barangay. Sto. Cristo	₱150,000.00
3.	Proposed Master Development Plan for Teresa Heights Open Space	₱500,000.00
4.	Proposed Construction of Housing Facility at Sitio Kawayan, Barangay San Agustin	₱400,000.00
5.	Proposed Construction of QCitizen Homes Bagong Silangan Transition Housing	₱200,000.00
6.	Proposed Construction of Six (6) Storey with Deck Multi-Purpose Building Park 9 at Barangay Loyola Heights	₱200,000.00
7.	Proposed Construction of Four (4) Storey with Deck School Building at San Jose Elementary School – Pag – ibig sa Nayon Annex	₱100,000.00
TOTAL		₱1,850,000.00

8.0 Contract Duration

The contract duration for the project shall be within Thirty (30) calendar days upon issuance of the Notice to proceed for the project.

9.0 Terms of Payment

One-time payment upon completion of the project.

10.0 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.

11.0 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.

12.0 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.

Prepared and Submitted by:


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Recommending Approval:


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