

TOURISM INFRASTRUCTURE AND ENTERPRISE ZONE AUTHORITY (TIEZA)

TERMS OF REFERENCE

RELOCATION and TOPOGRAPHIC SURVEY, GEOLOGICAL MAPPING, GEO- RESISTIVITY SURVEY AND GEO-TECHNICAL INVESTIGATION SERVICES FOR TIEZA' S 11.47 HECTARES MOALBOAL PROPERTY

I. INTRODUCTION

The Tourism Infrastructure and Enterprise Zone Authority (TIEZA) is a Government Owned and Controlled Corporation created under Republic Act No. 9593 and an attached body corporate of the Department of Tourism (DOT).

TIEZA has forty – nine properties and there is a need for these untitled properties to identify established land boundaries for land registration and development. In addition, the Commission on Audit on its Audit Observation Memo AOM Calendar Year 2019 No. 24, page 103 states that “ Present condition of various TIEZA Properties as observed during ocular inspection necessitates legal action and rehabilitation to mitigate the risks of further encroachment and opportunity loss due to non-operation.

With the TIEZA Board-approved Public-Private Cooperation Program on Joint Venture (JV) and TIEZA's partnership with the Private –Public Partnership Center, the process of identifying and priming of non-operating properties for investment has commence for the utilization of these assets and revenue generation thru developments.

TIEZA's 11.47 hectares located at Sitio Tap-anan, Basdiot, Moalboal Cebu has been identified as one of the properties for investment.

An inventory of documents of the Moalboal property were jointly conducted by Business Development Department and Legal Department on July 2019 to find discrepancies in area and for eventual survey of the lots. The identified Moalboal lots has no clear access road that makes inspection difficult. The lots are unfenced and highly susceptible to encroachment. A Board Resolution has been approved for the construction of fence of the 11.47 hectares Moalboal Property but there is a need to identify land boundaries and other information to implement fencing, identify possible access road and other developments. Thus a relocation and topographic survey, geological mapping, geo-resistivity (electrical resistivity tomography) survey, geo-technical investigation is needed with the following objectives that will form part of the development plan of the property.

1. To determine the correct location of the properties and their 3-D configurations
2. To determine the geology and geohazards on each site
3. To check for the best suitable area for building construction on each site
4. To determine the subsurface geology of the sites to include lithology, structures such as faults, voids, silk holes and ground water, based on geophysical investigation (ERT)

5. To be able to find the best and safest location in the property for building structures
6. To determine the classification and bearing capacity of soil for Foundation and Structure design.

The TIEZA principal office is located at 6th & 7th Floor, Tower I, Double Dragon Plaza, Double Dragon Meridian Park, Macapagal Park, Macapagal Avenue corner EDSA Extension Bay Area, Pasay City 1302.

The TIEZA through its Bids and Awards Committee is inviting interested and qualified parties to bid for the provision of relocation and topographic survey, geological mapping, geo-resistivity (electrical resistivity tomography) survey, geo-technical investigation to be referred as Surveying and Engineering Services of the 11.47 Hectares more or less Moalboal Property located in Sitio Tap-anan, Basdiot, Moalboal Cebu with the following lot numbers and its corresponding area. **The 11.47 hectares more or less lot is referred here as the Site.**

Table 1. Subject Areas for Study

	LOT NUMBER	LOCATION	Area (square meters)
1.	2288	Sitio Tap- nan, Basdiot, Moalboal	14,719.99
2.	2292	Sitio Tap- nan, Basdiot, Moalbo	14,363.92
3.	2568	Sitio Tap-nan, Basdiot, Moalboal	4,996.21
4.	2290	Sitio Tap-nan, Basdiot, Moalboal	1,149.29
5.	2291	Sitio Tap-nan, Basdiot, Moalboal	2,409.58
6.	2293	Sitio Tap-nan, Basdiot, Moalboal	2,907.40
7.	2357	Sitio Tap-nan, Basdiot, Moalboal	4,445.32
8.	2359	Sitio Tap-nan, Basdiot, Moalboal	3,710.74
9.	2361	Sitio Tap-nan, Basdiot, Moalboal	1,034.16
10.	2362	Sitio Tap-nan, Basdiot, Moalboal	845.45
11.	2363	Sitio Tap-nan, Basdiot, Moalboal	950.35
12.	2364	Sitio Tap-nan, Basdiot, Moalboal	15,222.01
13.	2367	Sitio Tap-nan, Basdiot, Moalboal	3,932.78
14.	2368	Sitio Tap-nan, Basdiot, Moalboal	2,740.64
15.	2369	Sitio Tap-nan, Basdiot, Moalboal	2,123.64
16.	2371	Sitio Tap-nan, Basdiot, Moalboal	39,134.00
		TOTAL	114,685.48
<i>One Hundred Fourteen Six Thousand Six Hundred Eighty Five and 48/100 square meters</i>			
<i>*Areas based on existing documents with BRDD</i>			

II. BIDDING ON THE PROCUREMENT OF SURVEY SERVICES

The scope of services to be performed during the period of consultancy is beyond the function of any TIEZA Employee.

The engagement of independent SURVEYING AND ENGINEERING COMPANY is within the purview of "Consultancy Services" enumerated in Annex B of the 2016 Revised Implementing Rules and Regulations (IRR) of R.A. 9184 particularly falling under **Section 6.6 Other Technical Services of Special Studies**, as follows:

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"The **Special Studies** may include the following and other studies not covered under any of the services and studies described above:

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- a) Soils investigation;
- b) Studies, tests and process determination performed to establish design criteria for water facilities;
- c) Land surveys, establishment of boundaries and monuments, and related office computations and drafting;
- e) Parcellary surveys;
- f) Engineering surveys (for design and construction) and photogrammetry;

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Thus, for purposes of bidding in the procurement of relocation and topographic survey, geological mapping, geo-resistivity (electrical resistivity tomography) survey, geo-technical investigation services for TIEZA's 11.47 hectares Moalboal Property, the winning bid shall be determined by the Quality-Cost Based Evaluation Procedure.

In order, however to achieve proper and efficient procurement of requirements of relocation and topographic survey, geological mapping, geo-resistivity (electrical resistivity tomography) survey, geo-technical investigation services for TIEZA's 11.47 hectares Moalboal Property, the Bids and Awards Committee (BAC) shall also take into consideration, aside from the cost, other factors determining the winning bid, such as, but not limited to, contracts with other clients and quality of services rendered, scope of work and implementation methodology.

The minimum requirements prescribed in this Terms of Reference shall be used as basis in evaluation of the technical proposal of the bidder. Compliance of the bidder to said minimum requirements shall be determined using a "pass-fail system".

Correspondingly, the approved Budget for the Contract (ABC) would be the basis for the computation of the Bid Security.

III. CONTRACT DURATION

The Proposed Contract for relocation and topographic survey, geological mapping, geo-resistivity (electrical resistivity tomography) survey, geo-technical investigation services for TIEZA's 11.47 hectares Moalboal Property shall be for One Hundred Fifty (150) working day period from the issuance of the "Notice to Proceed."

Suspension of the One Hundred Fifty (150) working day period shall be considered in cases of necessity of clarification of ownership documents, area or location of the property or pending review, an authorization or resolution of a decision point from TIEZA.

Suspension of 150 working day based on aforementioned /similar grounds shall be reckoned from TIEZA's receipt of the letter/ written endorsement or request for clarification.

Fortuitous events will only be considered in the suspension of the One Hundred Fifty (150) working day period if the SURVEYING AND ENGINEERING COMPANY can submit sufficient proof that such fortuitous event has prevented the SURVEYING AND ENGINEERING COMPANY to continue conducting the relocation and topographic survey, geological mapping, geo-resistivity (electrical resistivity tomography) survey, geo-technical investigation.

In cases of fortuitous events, a written request for suspension of the One Hundred Fifty (150) working day period shall be submitted by the SURVEYING AND ENGINEERING COMPANY to the Business Development Department Manager, and receipt of TIEZA shall be the reckoning point for the suspension of the One Hundred Fifty (150) working day period, in case the request has been approved in writing.

A notice from the Business Development Department (BUDD) shall be issued to the SURVEYING AND ENGINEERING COMPANY on the resumption of running of the One Hundred Fifty (150) working day period.

IV. TECHNICAL REQUIREMENTS

1. The SURVEYING AND ENGINEERING COMPANY shall submit the following to TIEZA:
 - a) Profile highlighting related projects
 - b) Certificate of Satisfactory Service from at least two (2) clients for the past three (3) years
 - c) Scope of Work and Implementation Methodology
 - d) Mayor's/ Business Permit
 - e) BIR Certificate of Registration
 - f) PhilGEP's Registration Number
 - g) Omnibus Sworn Statement
 - h) Professional License/ Curriculum Vitae of Key Personnel.

2. MANPOWER

The SURVEYING AND ENGINEERING COMPANY shall ensure that the personnel to be assigned to TIEZA must have the following:

- At least three (3) years of related experience
- Possess the required professional licenses issued appropriate regulatory body

- He/She must be reliable, honest, courteous and professional.

3. EQUIPMENTS

The SURVEYING AND ENGINEERING COMPANY shall ensure that the following equipment are provided per scope of services:

3.1 RELOCATION and TOPOGRAPHIC SURVEY

One (1) Electronic Total Stations, Four (4) Dual Frequency Survey Grade GPS Satellite Receivers with RTK Capability, One (1) Laptop Computer with Auto Disk 3D, Trimble Business Center, and SDRMap softwares, One (1) Wingtra Drone with 42MP Aerial Camera, One (1) Plotter Printer, Service Vehicle

3.2 GEOLOGICAL MAPPING

One (1) Compass, One (1) Handheld GPS, One (1) Geologist Pick Hammer, One (1) Camera, One (1) Hard Lens, One (1) Field Notebook, One (1) Topographic Map and One (1) Laptop Computer

3.3 GEO-RESISTIVITY (Electrical Resistivity Tomography) SURVEY

One (1) Resistivity Meter, One (1) Compass, One (1) Handheld GPS, One (1) Geologist Pick Hammer, One (1) Camera, One (1) Resistivity Wire (500 meter each), One Electrodes, One (1) 12V Batteries, Three (3) Two (2) Way Radio, One (1) Field Notebook , One (1) Topographic Map and One (1) Laptop Computer

3.3 GEO-TECHNICAL INVESTIGATION

One (1) Drilling Rig, One (1) Generator, Two (2) Water Pumps, One (1) Handheld GPS

V. SCOPE OF SERVICES

1. RELOCATION and TOPOGRAPHIC SURVEY Establishment of Geodetic Controls using GPS Satellite Receiver by Static Survey with reference to existing NMRIA PRS92 Survey Controls on Site.

- 1.1. Relocation of lot boundaries within the project site.
- 1.2. Topographic Survey of the site using GPS RTK Survey and Electronic Total Station(s) in areas where GPS is not suitable.
- 1.3. Ortho-photo Mapping (Aerial Topographic Survey of each site using WINGTRA Hybrid Drone with 42 mega pixel high resolution aerial camera with accurate PPK positioning system.
- 1.4. Data processing of GPS observation (Static and RTK data) using Trimble TBC processing and adjustment software. Other topo data using Electronic Total Station if any shall be process using SDRMap Surveying and Mapping Software while the overall plotting, DTM generation of plans using Civil-3D CAD, Surveying, Mapping and Engineering Software.
- 1.5. Preparation of survey report.

2. GEOLOGICAL MAPPING

2.1 Desktop study and literature research on the following

- 2.1.1. Regional Geology-checking regional geology of the area.
- 2.1.2. Climate and Vegetation.
- 2.1.3. Geological Hazard in the area.
- 2.1.4. Remote sensing study using ASTER/SRTM Images and Google images for the determination of lineaments, faults, and other geological/geomorphological structures.
- 2.1.5. Procure topographic maps from NAMRIA.

2.2. Mobilization/Demobilization and Camp Set-up:

- 2.2.1. Responsible for all the requirements needed for the travel (COVID-swab certificate, ticket, accommodation, transportation etc.)
- 2.2.2. Set-up a camp near to the project site.

2.3. Field Geological Mapping

- 2.3.1. Reconnaissance geological mapping of the entire area (scale 1:10000).
- 2.3.2. Methodology:
 - 2.3.2.1. Will take note of the overburden, lithology or rock types, stratigraphy, structures, rock hardness or RMR, geohazards from flooding, landslides, subsidence and erosion.
 - 2.3.2.2. Structure studies will include faults, joints, cavities and slope inclinations.
 - 2.3.2.3. All observations will be written in the field notebook and will be documented by the photographs. All observations will be located using GPS.
 - 2.3.2.4. Geohazards field survey in the project area and immediate vicinity.

2.4. Report Writing and Map Preparation

- 2.4.1. Compile all observations, field data and other supporting documents.
- 2.4.2. Geological maps, geohazard maps and other maps:

3. GEO-RESISTIVITY (Electrical Resistivity Tomography) SURVEY

3.1. Desktop study and literature research on the following:

- 3.1.1. Regional Geology-checking regional geology of the area.
- 3.1.2. Climate and Vegetation.
- 3.1.3. Remote sensing study ASTER/SRTM Images and Google images for the determination of lineaments, faults, and other geological/geomorphological structures.
- 3.1.4. Procure topographic maps from NAMRIA.

3.2. Mobilization/Demobilization and Camp Set-up:

- 3.2.1. Responsible for all the requirements needed for the travel (COVID-swab certificate (PCR Test, ticket, accommodation, transportation etc.)
- 3.2.2. Set up camp near to the Project Site

3.4 Geo-resistivity (ERT) Survey

3.5 Report Writing and Map Preparation

- 3.4.1 Compile all the observations, field data, other supporting documents.

3.4.2 Geological maps, electrical sections and other maps

4. GEO-TECHNICAL INVESTIGATION

4.1. Mobilization/Demobilization and Camp Set-up:

- 4.1.1. Checking all the requirements needed for the travel (Covid-swab Certificate, Tickets etc.)
- 4.1.2. Set-up a camp near to the project site.

4.2. Marking of Boreholes Location:

- 4.2.1. Borehole location shall be located and marked on the ground as describe on designed locations. A representative of TIEZA along with the Surveying and Engineering Company's Technician shall confirm on the site the final locations prior to simultaneously drilling within the area or footprints of the structures to be constructed pursuant to the purpose of the soil geotechnical investigation.

4.3. Sub-surface drilling and Field Tests:

- 4.3.1. Drill boreholes as per given project details and Terms of Reference within the area of footprints of the structures to be constructed pursuant to the purpose of the geotechnical investigation. Standard Penetration Test using a 2" outside diameter Split Spoon Sampler shall be performed at every 1.5m (3.28 ft.) on soil strata. The sampler shall be driven by a 63.5m (140lbs) Hammer free from height of 0.76m (30in) to achieve three successive increments of 150-mm (6in) each. Diamonds bit coring tungsten bit coring shall be conducted on encountered rock layers.

4.4. Sampler preservation and transfer:

- 4.4.1. The integrity of the samples shall be maintain by providing sample container and core box. All recovered samples and field logs shall also be transferred from the project site to the nearest Laboratory. For projects involving sea transportation, such as in this project, the turnover will be affected by the pre-existing schedule of the nearest shipping lines from the project site towards the port of Manila, as well as the required booking days prior to movement. Retrieval and transport from port to the nearest Laboratory will also be the Surveying Company's responsibility.

4.5. Laboratory Tests:

- 4.5.1. Laboratory test included shall be tested in accordance to the ASTM Procedure. All laboratory test results will be compiled for submission. The details of the subsurface drilling, field test, and laboratory test will be consolidated and submitted, along with the final Boring Log, which reflects the overall summary of the geotechnical investigation.

4.6. Geotechnical Evaluation:

- 4.6.1. The Surveying and Engineering Company to submit a geotechnical evaluation done by a competent Geotechnical Engineer / Engineering

Geologist for the findings, analysis, and recommendation for the sub-surface investigation.

4.7. Final Report:

- 4.7.1. The Surveying Company to submit Three (3) sets of the Final Geotechnical Report, which contains the details and results of the subsurface drilling, field test, laboratory test, as well as geotechnical evaluation. Photograph records and miscellaneous information during the site investigation phase of the project should be provided.

5. The SURVEYING AND ENGINEERING COMPANY MUST SUBMIT THE FOLLOWING FINAL OUTPUT/ REPORT IN THREE (3) HARD COPIES, SIGNED AND/ OR AFFIXED WITH DRY SEAL, AND A DIGITIZED COPY SAVED IN A USB FLASH DRIVE. :

5.1. INCEPTION REPORT

- 5.1.1 Activities and Timeline for Project Preparation in Gant Chart Format
5.1.2. Personnel/Manpower on Board of the Project
5.1.3 Equipment for the conduct of the survey and engineering services
5.1.4 Documents to be collected from TIEZA

5.2 Relocation and Topographic Survey:

- 5.2.1 Established Geodetic Controls marked with standard survey control monuments.
5.2.2 Descriptions of the established GPS Stations and Bench Marks.
5.2.3 Detailed Ortho-photo/topographic Maps showing existing utilities and structures on site and contours at 1 meter interval.
5.2.4 Survey Report
5.2.5 Digital drawing files store in USB Flash Drive.

5.3 Geological Mapping:

- 5.3.1 Final Report.

5.4 Geo-resistivity Survey (Electrical Resistivity Tomography)

- 5.4.1 Final Report

5.5 Geo-technical Investigation:

- 5.5.1 Final Report including soil classification and bearing capacity on each of the borehole locations

VI. DUTIES AND RESPONSIBILITIES OF SURVEYING COMPANY

1. The SURVEYING AND ENGINEERING COMPANY shall:
- a) Gather relevant data on the aforementioned properties
 - b) Used a Modern computerized system for the whole process conforming with the Geodetic Engineering Practice and Standard
 - c) Draft the Surveying and Engineering Reports based on the data gathered, subject to the approval by the TIEZA

- d) Ensure the appropriate qualifications of the personnel assigned to conduct the surveying and engineering process
 - e) Provide the transportation, accommodation, travelling requirements and other expenses in the conduct of the survey of their personnel
 - f) Ensure the timely submission of the Final Survey Report.
2. For the faithful compliance of the terms and conditions of this contract, the SURVEYING AND ENGINEERING COMPANY shall be required to post a performance bond in favor of TIEZA in the equivalent amount and form according to a schedule provided in the bid documents.

VII. DUTIES AND RESPONSIBILITIES OF TIEZA

1. Designate a counterpart support team who will work closely with the SURVEYING AND ENGINEERING COMPANY regarding the technical requirements of the activities and a point person who shall coordinate with the SURVEYING AND ENGINEERING COMPANY on the administrative requirements.
2. Provide location guides during the activities to provide assistance to properly identify and locate the Project Site.
3. Furnish the SURVEYING AND ENGINEERING COMPANY with the information concerning the TIEZA Properties including, among others, reference plans and data, and any other material information that may impact on the surveying and engineering services.

VIII. TERMS AND CONDITIONS OF THE CONTRACT

1. *Indemnity.* The SURVEYING AND ENGINEERING COMPANY shall be responsible for losses and/or damages suffered by TIEZA, its officers, employees and guests, and their properties by reason of the willful, unlawful or negligent act or omission of the SURVEYING AND ENGINEERING COMPANY or any of its personnel or representative.
2. *Solidary Liability of the SURVEYING AND ENGINEERING COMPANY in case it is a Joint Venture.* In case the SURVEYING AND ENGINEERING COMPANY as a supplier is a joint venture, all partners to the joint venture shall be jointly and severally liable to TIEZA.
3. *Liquidated Damages.* In the event that the SURVEYING AND ENGINEERING COMPANY fails to satisfactorily perform the services stipulated in this Terms of Reference, inclusive of duly granted time extensions, if any, TIEZA shall, without prejudice to its other remedies under the Conditions of Contract and other applicable laws, deduct from the Contract Price as liquidated damages the applicable rate of one tenth (1/10) of one percent (1%) of the cost of the unperformed portion for every day of delay until actual delivery or performance.

In the event that the total sum of liquidated damages for such delay or inability by the SURVEYING AND ENGINEERING COMPANY to perform its obligations exceeds 10% of the Contract Price, TIEZA may rescind or terminate the resulting Contract upon giving the SURVEYING COMPANY written notice at least five calendar days

prior to the intended date of termination, without prejudice to other courses of action and remedies open to it.

TIEZA needs not prove that it has incurred actual damages to be entitled to liquidate damages from the SURVEYING AND ENGINEERING COMPANY, and the same shall not be by way of penalty. TIEZA reserves the right to deduct any and all of the liquidated damages from any money due or which may become due to the SURVEYING AND ENGINEERING COMPANY under the resulting Contract and/or from the warranty security or other securities posted by the SURVEYING AND ENGINEERING COMPANY, as TIEZA may deem convenient and expeditious under the prevailing circumstance.

4. *Hold Harmless.* The SURVEYING AND ENGINEERING COMPANY agrees to hold TIEZA entirely free and harmless from any liability, cause or causes of action, or claims which may be filed by any or all of its personnel by reason of his/her/their employment under the resulting Contract, under the provisions of RA 602, otherwise known as the Minimum Wage Law, RA 4119, otherwise known as the Workmen's Compensation Act, and any other related law or laws which are already in effect, or which may hereafter be enacted, it being expressly agreed and understood that there is absolutely no privity between them and TIEZA, and that they are not employees of TIEZA, and the SURVEYING AND ENGINEERING COMPANY shall indemnify and/or reimburse TIEZA should the latter pay in advance any said claim, including damages incurred in connection therewith.
5. *Confidentiality.* The SURVEYING AND ENGINEERING COMPANY agrees that the services covered by the resulting Contract are strictly confidential and that a breach of any of the Terms and Conditions thereof by the SURVEYING COMPANY may subject TIEZA to the compromise of its security, financial, material and operational loss, and therefore, the SURVEYING AND ENGINEERING COMPANY hereby agrees as follows:
 - a) The SURVEYING AND ENGINEERING COMPANY and any of its personnel shall not, during the term of this Contract or anytime thereafter, reveal, disclose or furnish in any manner to any person, firm or corporation, any information relating to TIEZA which the SURVEYING COMPANY or its personnel may have acquired or which came to its/their knowledge or possession during the performance of their obligations to TIEZA.
 - b) Only persons expressly authorized in writing by TIEZA shall be allowed by the SURVEYING COMPANY to have access to the documents/records in the custody of the SURVEYING AND ENGINEERING COMPANY. For this purpose, TIEZA shall inform the SURVEYING AND ENGINEERING COMPANY in writing of the persons authorized to have access to said documents/records.

- c) The SURVEYING AND ENGINEERING COMPANY shall prevent any unauthorized person from gaining access to the documents/records described in the preceding Item.
6. *Non-waiver of Rights.* The failure of TIEZA to insist upon the strict performance of any of the terms, conditions and covenants of the resulting Contract shall not be deemed a relinquishment or waiver of any right or remedy that TIEZA may have, nor shall it be construed as a waiver of any subsequent breach or default of the terms, conditions and covenants of the resulting, which in turn shall continue to be in full force and effect. No waiver by TIEZA of any of its rights under this Terms of Reference and the resulting Contract shall be deemed to have been made unless expressed in writing and signed by it.
 7. *Severability.* If any provision of the resulting Contract or of any of its attachments should, for any reason, be held void or unenforceable, the legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired, and shall remain in full force and effect.
 8. *Binding Effect and Assignment of Rights.* The resulting Contract shall be binding upon the SURVEYING AND ENGINEERING COMPANY, its partners, successors-in-interest, its legal representatives and assigns. Notwithstanding the foregoing, the SURVEYING AND ENGINEERING COMPANY shall not in any manner assign or transfer its rights and obligations under the resulting Contract without the prior written consent of TIEZA.
 9. *Contract Amendment.* Subject to applicable laws, the resulting Contract may be amended or modified in writing upon mutual agreement of TIEZA and the SURVEYING AND ENGINEERING COMPANY.
 10. *Application.* Should there be any conflict or inconsistency between the provisions, terms and conditions set forth in this Terms of Reference and those provided in the General and Special Conditions of the Contract, the former shall prevail.

IX. MODE OF PAYMENT

1. The SURVEYING AND ENGINEERING COMPANY shall be paid by milestone and only after the services have been rendered, as follows:

Table 2. Milestone of Payment

MILESTONE	Condition for Processing of Payment	% of Contract Price	Due date
1.SUBMITTED Inception Report of the Surveying and Engineering Services Company on the 11.47 Hectares Moalboal Property	Issuance of Certificate of Acceptance of the Inception Report by AMS as recommended by Business Development Department	10%	Five (5) Days from the Issuance of Notice to proceed

2.Submitted the Relocation and Topographic Survey Output and Report (Stated in the Scope of Services)	Issuance of Certificate of Acceptance for the Relocation and Topographic Output and Reports by AMS as recommended by BUDD	20%	Within 60 days from receipt of Notice to Proceed
3. Submitted Output and Report of the following: (Stated in the Scope of Services) 1. Geological Mapping 2. Geo-Resistivity (Electrical Resistivity Tomography) 3. Geo-Technical Investigation	Issuance of Certificate of Acceptance for The Geological Mapping Geo-resistivity (Electrical Resistivity Tomography) and Geo-technical Investigation Output and Reports to AMS as recommended by BUDD	70%	Within 150 days from receipt of Notice to Proceed

4. Payments will only be processed after TIEZA has accepted the submitted surveying outputs and reports through the issuance of a Certificate of Acceptance by the Assets Management Sector (AMS), upon the recommendation of the Business Development Department (BUDD).
5. Regardless if one or more activities has been accomplished under the scope of services, only upon the completion and acceptance of the Five (5) Survey and Engineering Output and Reports, can a Certificate of Acceptance be issued for its corresponding milestone.
6. Only Five (5) Certificates of Acceptance shall be issued by the AMS to qualify for processing of payment as follows:

Table 3. Certificates of Acceptance per Milestone of Payment

CERTIFICATES OF ACCEPTANCE	
1	Acceptance of the Inception Report of the Survey and Engineering Services
2	Acceptance of the Relocation and Topographic Output and Report
3	Acceptance of the following: 3.1 Geological Mapping Output and Report 3.2 Geo-Resistivity (electrical resistivity tomography) Survey Output and Report 3.3 Geo-Technical Investigation Output and Report

X. APPROVED BUDGET FOR THE CONTRACT

1. The Financial Proposal shall reflect the cost of the surveying and engineering services.
2. ABC for the project will be based on the approved estimated cost stated in the Purchase Request, as follows:

Table 4. Approved Budget Contract


SCOPE OF SERVICES	APPROVED BUDGET CONTRACT
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1. Inception Report	851,501.63
2. Relocation and Topographic Survey	1,867,840.80
3. Geological Mapping	1,843,228.80
4. Geo-Resistivity Survey (Electrical Resistivity Tomography)	2,068,257.90
5. Geo-Technical Investigation	1,884,187.20
GRAND TOTAL	8,515,016.33
EIGHT MILLION FIVE HUNDRED FIFTEEN THOUSAND SIXTEEN PESOS & THIRTY THREE CENTAVOS ONLY	

XI. BASIS FOR EVALUATION OF AWARD

Evaluation and award of contract shall be in accordance with the provisions of Republic Act No. 9184.

RECOMMENDING APPROVAL:


JETRO NICOLAS F. LOZADA
Assistant Chief Operating Officer
 Assets Management Sector

APPROVED/DISAPPROVED


MARK T. LAPID
Chief Operating Officer

List of TABLES FOR THE TERMS OF REFERENCE

Table 1. Subject Areas for Study

Table 2. Milestone of Payment

Table 3. Certificate of Acceptance

Table 4. Approved Budget Contract



Prepared By: MA. ZENAIDA R. QUINAHAN