

TERMS OF REFERENCE (TOR)

Implementation of Enhanced Tax Mapping System (eTAXMAPS) Phase 4

I. RATIONALE AND BRIEF BACKGROUND

This Project is the fourth Phase and a continuation of the City Assessor Office's (CAO) Enhanced Tax Mapping System Project Phase 3 and Phase 2, and the Map Linking and Spatial Analysis Project (Phase 1) implemented in 2019, 2012 and 2006, respectively.

Phase 1 which used Barangay Bagong Pag-asa as the Pilot Study revealed problems/issues in the linkage of the parcel database (PDB) and the tax declaration records database for land (LTDR) and for buildings (BTDR) of CAO. This led to the implementation of Phase 2 which aimed to address the need to systematize the updating, enhancement and maintenance of the tax maps in the Assessor's Office.

Phase 2 gained impetus likewise on the results of a pilot study done by CAO's Service Provider together with volunteers from the CAO for Barangay Bagong Pag-asa. New information on buildings revealed in aerial photos and images led to the discovery that 110 buildings did not have building tax declaration records. The results of this pilot undertaking revealed among other things that initially the area contained 69 parcels that did not seem to have tax declaration records out of the 1278 parcels. Also, there were 57 records in the Land Tax Declaration Records (LTDR) that did not have matching parcels in the parcel map. After research and verification of records, as well as cleansing of the database, all parcels had land tax declaration records and the number of parcels increased to 1301.

Phase 3 upgraded the eTAXMAPS' software environment to the latest ArcGIS version at the time of the implementation, which resulted to the improved functionalities of all the deployed applications/service modules. Phase 3 also included the enhancement of the eTAXMAPS' web apps—RPV and PIN Generator (now referred to as Enhanced PIN Assignment System or ePINAS); the development of new web apps—the General Revision application (from the General Revision geoprocessing tool in Phase 2) and Electronic Tax Map Control Roll (eTMCR); and configuration of dashboards (Executive Dashboard and Operations Dashboard).

The existing GIS and eTAXMAPS applications are using the ArcGIS Platform, and this will be the GIS software that will be used for the applications in Phase 4.

II. PROJECT DESCRIPTION

With the eTAXMAPS System already in place, the tax mapping update procedures in the City Assessor's Office has improved and resulted to an increase in the tax assessment and collection from real properties.

The main goal of this Project is to begin initial updating of the parcels using technical description and provide additional applications for CAO users.

Specifically, the Phase 4 Project aims to do the following:

- Update CAO Data thru:
 - building the parcels using legal documents, i.e. technical descriptions
 - encoding attributes of building using existing building footprints from DBO
 - plotting of machineries using existing machinery records
- Upgrade the GIS platform used by the eTAXMAPS applications to the most recent ArcGIS version which includes:
 - upgrading the existing ArcGIS software from 10.6 to 10.8.1 or the latest version available in the market
 - procurement of additional desktop GIS software for PAD users
- Provide additional applications to include:
 - Machinery Record Plotter (mobile application applicable to Android & IOS)
 - Field Appraisal and Assessment solution
 - Real Property Viewer for public use
- Build the capabilities of CAO personnel to use and manage the eTAXMAPS applications through training and knowledge transfer activities

III. PROJECT SCOPE OF WORK

Below is the list of the deliverables for the eTAXMAPS Phase 4:

A. Updated Database

- Updated parcels using legal documents, i.e. technical descriptions
- Encoded attributes for the building footprints from DBO
- Plotted machineries using existing machinery records

B. Deployed eTAXMAPS applications

- Machinery Record Plotter (mobile application applicable to Android & IOS)

- Field Appraisal and Assessment solution
 - Real Property Viewer for public use
- C. Equipped CAO Personnel
- Conducted GIS Training Courses
 - Conducted User's and Administrator's Training
 - Conducted Parcel Editing Workshop
- D. Documentation
- Project Implementation Plan (PIP)
 - Users' Manual
 - System and Operations Manual
 - Progress Reports
 - Training Manuals
 - Close-out Report
- E. Technical Support Services
- Phone and email support – 1 year after project completion
 - Onsite/Remote support – 30 man-days (consumable within 12 months after project completion)

Implementation Responsibilities

The City Assessor's Office (CAO) shall:

- Designate an overall Project Manager for the eTAXMAPS Phase 4 project who shall be responsible to the Mayor for the successful completion of the project and in the accomplishment of project objectives. He/she shall also serve as the main contact person between CAO and the Service Provider.
- Responsibilities of the Project Manager shall include the following:
 - Review, approve, and accept the project deliverables as agreed upon by the CAO and the Service Provider;
 - Facilitate the provision of access to necessary data, documents and other relevant information in its possession for the smooth implementation of the Project;

- Facilitate coordination with the Information Technology and Development Office (ITDO) for technology oversight in the project;
 - Provide the venue, computers and other related equipment and materials during the conduct of the training courses (if possible);
 - Identify and nominate the personnel who will attend the courses, based on qualification guidelines to be issued by the Service Provider; and
 - Facilitate the payment to the Service Provider according to the agreed payment schedule.
- Assign the appropriate team to serve as Counterpart Team to the Service Provider's project team during the implementation of the project.
 - Provide the project team with the necessary documents and files needed for the project.
 - Provide the workspace for system development and analysis work, including hardware and office facilities for printing and plotting.
 - Procure the necessary hardware, software and supplies meeting equal or greater than the minimum specifications to be provided by the Service Provider.

The Information Technology and Development Office (ITDO) shall:

- Provide technical support to the CAO during the implementation of the Project.
- Assign the appropriate person who will serve as the main contact person of CAO in ITDO during the implementation of the Project, and who will participate in project activities.
- Assist CAO in the preparation of the necessary technical resources (hardware, network, software, etc.) needed by the Project.

The Service Provider shall:

- Provide services to provide the required deliverables of the Project.
- Recommend hardware, operating systems and network requirements for the system implementation which shall be purchased or made available by QCG for the project.
- Provide the necessary resource persons, course materials (e.g. training manuals, presentation materials, handouts, evaluation forms, and training datasets) for the conduct of the training courses.

- Provide technical support staff with required competence and appropriate qualification standards and experience to undertake the activities.
- Carry out the services with due diligence and efficiency in conformity with sound planning and management practices.
- Protect at all times the interest of the CITY and take all the reasonable steps to keep expenses within the approved ceiling, consistent with sound financial practices.

IV. AREA OF COVERAGE

The Service Provider shall provide technical assistance to QCG to accomplish the target outputs of this eTAXMAPS Phase 4 Project, as described below.

A. Data Development

The eTAXMAPS' GIS database design was updated and used by the GIS applications during the Phase 3 Project implementation. This database shall be reviewed and updated to accommodate the requirements of the applications to be deployed in Phase 4.

For Phase 4, the Service Provider shall update the existing parcel database using legal documents, i.e. technical descriptions, for **25% of CAO's parcel data (or approximately 76,000 parcels)**. CAO will get a copy of DBO's existing building footprints dataset, and the Service Provide will augment this data by plotting **up to 219,661 building footprints**. In addition, the Service Provider shall plot the locations of **up to 7,008 machinery RPUs** using CAO's existing data records of machineries.

The Service Provider must ensure that all data that will be processed shall undergo proper quality control. The Service Provider must specify their proposed QA/QC measures to ensure the quality of data output for this project.

B. Deployment of eTAXMAPS applications

The Service Provider shall provide the following:

- Mobile applications that shall enable users to collect and synchronize data from the field to the office; and
- Web application that will enable public users to access RPU information.

The ***Machinery Record Plotter*** is a map-based mobile application that shall enable CAO users to plot machinery RPU locations as points on the map, and input necessary information while in the field with or without internet connection.

The ***Field Appraisal and Assessment solution*** shall help improve and automate the FAAS workflow of CAO appraisers. The **Field Appraisal and Assessment Map (FAAM)** shall allow appraisers to view the real property map and related information, and the **Field Appraisal and Assessment Form (FAAF)** shall be a digital version of CAO's Field Appraisal and Assessment Sheet (FAAS).

The ***QCitizen Real Property Viewer*** is a web-based application that shall enable the public to access RPU maps and related information, thus promoting government transparency.

C. Equipping of CAO Personnel through Training and other Capability Building

CAO personnel has undergone a series of ArcGIS trainings and knowledge transfer activities for the use and management of the eTAXMAPS and its applications in the previous phases.

In this phase, the Service Provider shall conduct another batch of basic training for new users, as well as conduct parcel editing workshop for tax mappers, and end-user trainings to ensure that the involved CAO personnel will be kept abreast of developments and updates pertaining to the eTAXMAPS' GIS platform, ArcGIS. CAO administrators shall also be taught how to successfully install, configure, and manage the upgraded GIS environment of the eTAXMAPS.

D. Provision of Technical Support Services

The Service Provider shall also provide technical support services through phone or email for one (1) year after project completion. The Service Provider shall also provide onsite/remote services to ensure that CAO's technical support needs will be addressed in a timely manner within twelve (12) months from project completion.

V. PROJECT STANDARDS & REQUIREMENTS

- The software provider must be a certified distributor of the software or brand being offered.
- The software provider supplier should have provided GIS software and components within the past 3 years, the value of which has at least 50% of the ABC cost of the project

- The software provider must have a good track record and submit organizational structure and ISO 9001.
- The software provider must provide a warranty statement granting technical support services for 12 months through phone, email and onsite which will start being served right after delivery.
- The software provider shall have at least five (5) years extensive experience in using, installing and configuring the GIS software with technical support personnel certified as GIS Specialists by the software manufacturer.
- The software provider shall have at least ten (10) years of experience in implementing GIS projects for national governments agencies.
- The software provider shall have a training facility with at least ten (10) years of experience in providing related training courses and with trainers who are certified to train by the software manufacturer.

VI. PROJECT DURATION

The eTAXMAPS Phase 4 shall be done within twenty-one (21) months.

VII. APPROVED BUDGET FOR THE CONTRACT

The Approved Budget for the Contract is PHP 33,640,669.00 broken down as follows:

a) Project Implementation Services

Description	Unit Price	Qty	Total Price
Project Management & Implementation Services		1 lot	
Helpdesk Support		1 year	
Premium Support		30 man-days	
Data Services		1 lot	
Total			

b. Capability Building

Description	Unit Price	Qty	Total Price
Introduction to GIS Using ArcGIS (GISA)		10 pax	
ArcGIS Pro: Essential Workflows (APEW)		10 pax	
Sharing GIS Content Using ArcGIS (SHAR)		10 pax	
Managing Geospatial Data in ArcGIS (GDAT)		10 pax	
Spatial Analysis Using ArcGIS Pro (SNAP)		10 pax	
Field Data Collection and Management Using ArcGIS (FIDA)		28 pax	
Parcel Editing Workshop		16 pax	
User's Training		30 pax	
System Administration and Operations Training		4 pax	
Total			

VIII. BASIS OF PAYMENT

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| A. Upon Notice to Proceed and Submission of Project Plan | 30% |
| B. Upon Delivery of Data | 20% |
| C. Upon Submission of Requirements Analysis | 20% |

- D. Upon Deployment of eTAXMAPS Application and Submission of Documentation 10%
- E. Upon Conduct of Training Courses and Submission of Final Report 10%
- F. One Year after Project Completion 10%

IX. PENALTIES FOR BREACH OF CONTRACT

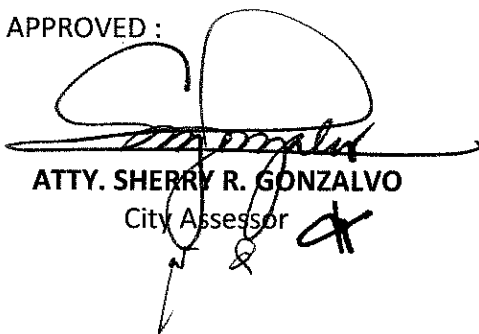
Failure to deliver the services according to the standards and requirements set by the City shall constitute an offence and shall subject to Contractor to penalties and/or liquidated damages pursuant to RA 9184 AN ACT PROVIDING FOR THE MODERNIZATION, STANDARDIZATION AND REGULATION OF THE PROCUREMENT ACTIVITIES OF THE GOVERNMENT AND OTHER PURPOSES and its revised Implementing Rules and Regulations.

X. CANCELLATION OR TERMINATION OF CONTRACT

Should there be any dispute, controversy or difference between the parties arising out of this TOR, the parties herein shall exert efforts to amicably settle such dispute or difference. However, if any dispute, controversy or difference cannot be resolved by them amicably to the mutual satisfaction of the parties, then the matter may be submitted for arbitration in accordance with existing laws, without prejudice for the aggrieved party to seek redress before a court of competent jurisdiction.

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

APPROVED :



ATTY. SHERRY R. GONZALVO
City Assessor