

## TERMS OF REFERENCE (TOR)

### SUPPLY, DELIVERY, INSTALLATION, AND COMMISSIONING OF THE QUEZON CITY ZONING CLASSIFICATION AND MAPPING ONLINE SYSTEM

- I. RATIONALE AND BRIEF BACKGROUND – Approvals for business permits and building permits are dependent on validating the zonal classification of the location of the business or building. Currently the validation process relies on manual verification using separate, unconnected systems and procedures. There is a need to streamline the process of checking if a location specified by a business or building is in an allowed zone.
- II. PROJECT DESCRIPTION – This project will provide the Zoning Administration Unit (ZAU) with an online system for mapping all the zones within Quezon City, assigning the proper classification for each zone. The resulting aggregate zone map will be used by other departments that need to determine to which zoning classification a location belongs. Phase 1 shall be a cloud-based system while a 2<sup>nd</sup> phase can possibly be implemented for an on-premise system.
- III. PROJECT SCOPE OF WORK - The system will have the following components:
  - i. Technical Specifications:
    - a) All internal users will require a valid email address to log in and use the system. They can recover their password through their email.
    - b) The web applications will be accessible using the latest versions of Safari and Chrome on Mac/iOS and Chrome on Windows/Android
    - c) The web applications will store all data and documents in the cloud instead of on-premises servers.
    - d) The cloud-based hosting of the data will be provided for one (1) year, subject to renegotiation thereafter.
    - e) All data captured by the system shall remain the property of the City, and the cloud-based storage that contains the data will be turned over to the City when the service agreement expires or is terminated.
    - f) The system will register the subdomain to the DNS service provider of quezoncity.gov.ph.
  - ii. Security:
    - a) The web server will be protected by SSL certificates.
    - b) The web server will be a separate instance from the database server.

- c) The system will implement industry standard measures to protect user data, prevent web fraud, mitigate bot attacks, secure APIs, and prevent unauthorized application access.
- d) The system should conform with applicable data privacy laws. The application must also conform/abide with the Department of Information and Communications Technology (DICT) Philippine Government's Cloud First Policy (latest version).

iii. System Features:

a) Due diligence

- 1. Investigate and understand the multiple sources of GIS zoning data by meeting with GIS specialists through ZAU officers
- 2. The source data for the zoning map shall be acquired from ZAU in the form of ArcGIS shapefiles.
- 3. The service provider will define the business requirements document of the presentation of the data by allowing it to be viewed, processed, and enhanced using a mapping system based on Google Maps
- 4. The Zone Classification and Mapping System must fully integrate with the existing QC-eServices Web Portal, supporting universal login accounts and single sign-on (SSO)

b) Data conversion

- 1. Source data file from ZAU shall be sourced from ArcGIS.
- 2. The source data file should contain the coordinates, northing, easting, and zone classification for each polygon.
- 3. The source data must be transformed into the proper Coordinate Reference System (CRS) used by Google Maps.
- 4. The transformed zoning polygon data will be compatible with Google Maps and its CRS and can be correctly loaded into the platform for plotting onto a map.

c) Polygon Attributes

- 1. Each polygon must contain all the necessary attributes in order to fulfill the project requirements
- 2. Each polygon should contain the following attributes:
  - a. Polygon ID - Each polygon ID must be unique
  - b. Latitude - The latitude for each point in each polygon must be accurate to at least 6 decimal places
  - c. Longitude - The longitude for each point in each polygon must be accurate to at least 6 decimal places
  - d. Zoning classification - Each polygon must contain its zoning classification

d) Online Mapping Modules

- 1. Admin/backend features:

- a. Display an Online Map using Google Maps as the basemap and the QC Zoning Data as an overlay on the map.
  - b. Use Google Maps technology as the foundation of the online map.
  - c. Display the QC Zoning Data as polygons on the map with transparency to still appreciate the basemap, color coding to easily differentiate between zone types, and a legend to help in identifying zone types.
  - d. Display a pop-up tool tip which will display the Zone Type of the clicked polygon as well as remarks if any.
  - e. Allow users to upload converted compatible files which will then be displayed as zoning polygon data in the map.
  - f. Allow users to provide remarks per polygon.
2. Viewer/public facing features:
- a. Allow user to view an online map using Google Maps as the basemap and the QC Zoning Data as an overlay on the map.
  - b. Allow users to pan, zoom in, zoom out, and navigate the map.
  - c. Allow users to search for specific addresses, landmarks, and/or establishments using the Google Maps search function.
  - d. Allow users to identify the zoning classification of a user nominated point by either clicking on a point in the map or by using the search function.
  - e. Allow users to click on a polygon on the map and view its Zone Classification.
3. The City will have unlimited usage of the mapping technology within the confines of this project as long as the mapping system is in use and is being maintained by the provider
- e) Zoning verification API
1. The service provider must develop an Application Programming Interface (API) that will allow third party systems to identify the Zoning classification and Barangay of a supplied set of coordinates or pinned location
  2. The API must include security features that safeguard against data leaks

IV. AREA OF COVERAGE – The web application will be deployed online through QC-eServices and will be available for use by applicable internal QC LGU offices.

V. PROJECT STANDARDS AND REQUIREMENTS

The following are the minimum qualifications and requirements for the Contractor or Bidder:



- i. Track Record
  - a. The service provider must be in the same industry as per their DTI or SEC filing for at least five (5) years
  - b. The service provider should have been in operation for at least five (5) years
  - c. The service provider must have implemented a similar registration and web application project within the last three (3) years.
  - d. The service provider should have implemented a public or private project with a single completed contract amounting to at least fifty percent (50%) of the ABC.
- ii. Organization
  - a. Service providers must have Platinum status in PHILGEPS
  - b. The service provider must be a duly registered company with DTI or SEC filing
  - c. The service provider must be filed with DTI or SEC as an IT company with the purpose of software development and the supply of IT-related goods and services
  - d. The service provider must be duly registered under the National Privacy Commission (NPC) and submit a copy of current and valid NPC Registration
  - e. The service provider shall guarantee that the system shall abide with the DATA PRIVACY ACT OF 2012 to ensure that the personal information is protected.
- iii. Manpower
  - a. The service provider must have their own head count of software developers.
  - b. The service provider must have their own support staff to conduct support tasks for the project such as system administrators and quality assurance testers.
  - c. Staff complement:
    - i. Overall Program Manager – college graduate (preferably IT-related courses) and with at least five (5) years experience on this field
    - ii. Senior Web Development Project Manager – college graduate (preferably IT-related courses) and with at least two (2) years experience on this field
    - iii. Google Cloud Platform Server Administrator – college graduate (preferably IT-related courses) and with at least one (1) year experience on this field
    - iv. Web Security Engineer – college graduate (preferably IT-related courses) and with at least one (1) year experience on this field

- v. Quality Assurance and Testing Staff – college graduate (preferably IT-related courses) and with at least one (1) year experience on this field

VI. TRAINING

The service provider will provide all necessary trainings to at least five (5) ZAU map reviewers for the usage of the system with four (4) hours training duration. A separate training for key ZAU and ITDD personnel will be conducted for the administration and management of the system with an equivalent four (4) hours of training.

VII. AFTER SALES SUPPORT

The service provider will submit an Affidavit of Undertaking stating the following:

- Software Component will have one (1) year warranty upon implementation.
- User manual and installer will be provided for software components.
- All hardware requirements are existing and to be provided by the Quezon City Government
- Technical support:
  - i. Workdays from 8AM to 5PM, expect a response within the day or by next day
  - ii. Weekends and holidays, expect a response by next workday

VIII. DELIVERY SCHEDULE

The delivery schedule will be within sixty (60) calendar days upon the issuance of the Notice to Proceed observing the schedule of delivery as stated below:

MILESTONES	DELIVERY PERIOD
Project Implementation Plan	5 calendar days from the Notice to Proceed
Application Development	60 calendar days from the date of the Notice to Proceed
Training and Turnover	7 calendar days from Certificate of Acceptance
Project Support and Maintenance	1 year

IX. APPROVED BUDGET FOR THE CONTRACT

The Approved Budget for the Contract (ABC) amounts to Thirty Million Pesos Only [PHP30,000,000.00] VAT inclusive.

### **COST DERIVATION**

System Design	
Software Development Cost	
Integration to current Occupational Permit System	
New Online Modules	
Feature and Change Requests to Pre-Existing Modules	
System Documentation, Training Module and Training	
Technical and Customer Service Support - 12 months	
<b>TOTAL</b>	<b>30,000,000.00</b>

### **X. BASIS OF PAYMENT**

- a. Upon submission of the system for internal testing, the procuring entity will release fifteen percent (15%) of the total winning bid amount to the service provider.
- b. Upon deployment of the system online, the procuring entity will release eighty-four percent (84%) of the total winning bid amount to the service provider.
- c. One percent (1%) of the total winning bid amount will be released one (1) year after the final acceptance of the system as performance security.

### **XI. 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 the Contractor to penalties and/or liquidated damages pursuant to RA 9184 and its revised Implementing Rules and Regulations.

XII. CANCELLATION OR TERMINATION OF CONTRACT


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 negotiated procurement pursuant to RA 9184 and its IRR.

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