MINISTRY OF NATIONAL PLANNING HOUSING AND INFRASTRUCTURE
MALE', REPUBLIC OF MALDIVES

TERMS OF REFERENCE
STRATA MANAGEMENT SYSTEM

1.   GENERAL INFORMATION AND BACKGROUND

The current Government has introduced initiatives to support and regulate new economic agenda throughout the islands of Maldives with the intention of promoting more efficient public expenditure on economic and social services. With these new initiatives, the Government of Maldives aims to provide extensive support in strengthening the level of intervention in the housing sector.

In support of the president's pledges under the Strategic Action Plan, the Ministry of National Planning, Housing and Infrastructure (MNPHI) has planned to develop online portal and database for strata management system under the "Strata Titles Law" or *"Emmedhu Imaaraikurumuge Ganoon"*. The current application and registration process is lengthy and time consuming, as well as difficult to manage with an increasing number of applications. Therefore, the Ministry is working to enhance a harmonized approach for registrations and management of strata schemes. Thus, developing the platform will address the current and future issues of registration and management process. It's aimed to provide sufficient information to citizens, improve availability of data, strengthen coordination and prevent duplication in delivery of support to individuals and companies in real estate developments.

2.   SCOPE OF WORK

The Task of the Development team is to be developing several required Information and communication Technology systems. This will be done by assessing the received requirements from the project team, deciding on the most convenient information system to handle and present the data, and transforming the design into a functional program along with its related modules (Back-end. API, Web Portal, Mobile Application). This will involve a close coordination with the assigned team by MNPHI.

Developer shall perform the following tasks and responsibilities coordinating with the MNPHI team.

1.   The application consists mainly following component
     a.   API (Golang/Rusk based)
     b.   Web Components (Backend preferably laravel, Frontend preferably AngularJS)
     c.   Databases (MySQL/PostgreSQL, MongoDB)
2.   Develop API s that integrated to application use by local Authorities or Integrated APIs of local Authorities into system

3. Develop Web Application with (Front and Back-end for public, and MNPHI) responsive web interfaces using latest technology needs and application should support (portable web app) PWA
4. The application must be easily scalable horizontally by each component independently where a component can be any of APIs or web portals.
5. Develop advanced data visualization tools
6. Receive the final graphic web design from a web designer and perform all necessary steps to build the new software to achieve a final satisfactory working version.
7. Develop the CMS for the website/portal using divers' languages.
8. Regularly report to the MNPHI committee on the process of the software development.
9. Providing technical assessment, feedback and recommendations related to the progress of work done.
10. Performing initial application testing/debugging, in particular unit testing and integration tests procedures in addition to regression testing whenever required.
11. Performing the database design/modifications and implementation of the various database objects and functionalities that are to support the application development effort and requirements.
12. Preparing and submitting the required technical deliverable, in particular the detailed design reports, the application source codes, the test result log, and other documents and artifacts as detailed in the deliverable section below.
13. Being ready to work on a testing host server to put the developed version and any new software changes daily.
14. Training staff designated by the committee by MNPHI for the use of the final version.
15. Perform any other tasks requested by the committee by MNPHI related to the development of the software.
16. Performing all fixes/new components required by the MNPHI during the agreed duration (Minimum 6 Months).

3. BIDDERS QUALIFICATIONS

1. The bidder must be a locally registered business.
2. The development team members should be Maldivians.
3. Non-compliance to the above requirements constitutes a ground to be classified as NON-ELIGIBLE.

4. TECHNICAL QULAIFICATIONS

1. Team Qualification and Skill Requirements:

Designation	Skill Requirement	Education Qualification (Minimum)
Lead Developer	• 5+ years of experience directing the development team in the design, development, coding, testing, and debugging of applications	• Bachelor's degree in information systems, information technology, computer science, or similar. • Any certification is added advantage related field
Database Engineer	• 3+ years' experience in database engineering. • In-depth knowledge of	• Bachelor's degree in information systems, information technology,

		Structured Query Language (SQL).	computer science, or similar. • Any certification is added advantage related field.
Frontend	• 3+ years of experience in a similar role • Good knowledge of advanced JavaScript libraries and frameworks, such as AngularJS, React JS, Vue JS etc.		• Bachelor's degree in computer science, computer engineering or a related field. • Any Professional Certification in Front-End Web Development
Backend	• 3+ years of experience in a similar role. • Fluency in Golang/Rust, PHP and Unix Based operating systems is required. • Advance knowledge of PHP frameworks, such as Laravel, Symfony, Zen, etc. • Advance knowledge of concurrency and allocation when using Golang/Rust is required.		• Bachelor's degree in computer programming, computer science, or a related field' • Any Professional Certification in Back-End Web Development

5. EXPECTED OUTPUTS AND DELIVERABLES

Progress towards achieving each task during the contract will be monitored on a regular basis and with reference to a clear set of deliverables, including, where needed/applicable:

1. The Work Procedure.
2. Initial and Final Application Development detailed plan and evaluation of the start status and final status.
3. The Detailed Application Specifications Document.
4. The Functional documentation.
5. The ERD (entity relationship diagram).
6. Object and Class diagram.
7. Database Entity-Relationship Diagram.
8. The Documentation about database procedures.
9. The Comments fields for all database tables
10. Application detailed design report
11. Issues Logs.
12. Weekly Progress Reports.
13. Finalized Coding Standards and Conventions Document.
14. Application test plans.
15. Feedback / Change Documentations
16. Training sessions for MNPHI staff
17. Source codes of the application.
18. End-of-mission report that concludes the mission and assesses it.

19. The Database: including the mdf and the ldf file, filled with the latest version of data.
20. Return All Data source after project.
21. Return all related electronic materials after the project.
22. The Technical documentation includes the installation documentation and the detailed application specifications document.
23. The Help program: user and administrator manual documentation and any other software training materials related to the developer and the user.
24. All user profiles and access credentials: including the administrator profile and any related password to the database or source code related to the software.
25. Procedure of backup and the disaster recovery plan.
26. Any other information related to the software.
27. Quality Assurance and test results.
28. Developers' manuals.
29. Developer should host final version of the application on host that provided by MNPHI

6. FEE PROPOSAL AND PAYMENTS

The Bidder is expected to include the lump sum fee to carry out the tasks specified on the TOR on their proposal. The price proposed must be stated in both writing and in figure, and any proposal which has unclear statements, may be rejected. The payments are made upon satisfactory completion and acceptance by MNPHI for the deliverables.

The details as following:

No.	Phase (Deliverables / Conditions)	Fee (%)	Sum Up (%)
1.	Advance Payment	15%	15%
2.	Approval of system analysis design	15%	30%
3.	Completion and Submission of application for beta testing	20%	50%
4.	Approval of beta testing	30%	80%
5.	Final Installation and handing over	20%	100%

Note: The winner of bid is required to present a performance guarantee of 15% of the total price prior to signing the contract.

7. TIMEFRAME

The bidder should propose detail time frame for completing the project including milestones of this project and shall not exceed 1 year, starting from the commencement of the project.

8. <u>**REPORTING ARRANGEMENTS**</u>

The bidder will work under the overall guidance and direct supervision of the MNPHI Team. As the project will be time constrained, the consultancy firm will provide weekly update on the progress during the project.

9. <u>**EVALUATION OF THE PROPOSALS**</u>

Technical evaluation will be done based on the following criteria:

Category	Marks Allocated %	Evaluation Criteria
a) Team Composition	30 %	Points for specific team members will be allocated based on following; Team Leader (15% of 30%): Academic qualification (40 marks), experience (60 marks). Database engineer (5% of 30%): Academic qualification (40 marks), experience (60 marks). Backend (5% of 30%): Academic qualification (40 marks), experience (60 marks). Front end (5% of 30%): Academic qualification (40 marks), experience (60 marks). **Notes:** - Details of team members with role must be clearly mentioned in the proposal, if not, bid will be disqualified. - For each role there shall be separate person. - Reference letters must include details of work / projects completed. - Marks allocated for team leader experience will be considered up to 5 relevant field completed projects. - Marks allocated for all other members experience will be considered up to 2 relevant field completed projects. - Total marks allocated for each team member is 100.
b) Price	30 %	Formula below to be used to; Lowest price / price on proposal x percentage = Total % in price
c) Duration	40 %	Formula below to be used to; Lowest duration / duration on proposal x percentage = Total % in price
Total	100%	

10. **CONTENTS OF PROPOSAL**

1. Cover letter
2. Details of Team Member with role as per ANNEXURE 1 (Additional details to be attached as Annexure, including CVs of Team members, work experience letters in relevant field, and academic qualification details)
3. Price proposal as per the ANNEXTURE 2
4. Tentative work plan (clearly defining the commencement and completion date)
5. Detailed methodology (including initial system analysis design report)
6. Letter of completion/Reference letters or similar assignments performed in past 5 years.

Additional Information required;

7. Corporate profile (including project portfolios)
8. Business Registration certificate.
9. Business profile document issued from Ministry of Economic Development
10. Goods and Services Tax Registration Certificates
11. Tax Clearance from Maldives Inland Revenue Authority (MIRA) obtained recently (Not exceeding 2 months from date of announcement)

11. **PRE-BID MEETING & CLARIFICATIONS**

For further information, please attend the information session held at the Ministry of National Planning, Housing and Infrastructure (MNPHI) on 12 June 2022 at 11:00 hrs.

Ministry of National Planning, Housing and Infrastructure
Email: bidsecretariates@planning.gov.mv
Phone: + (960) 4004 700, + (960) 4004 735

12. **SUBMISSION OF PROPOSAL**

Proposals must be delivered in sealed envelopes titled "**Strata Management System Project Proposal for Ministry of National Planning, Housing and Infrastructure**" together with the submitting party's name and address to the address below, on **16th June 2022 at 11:00 hrs** local time. Electronic submission is not permitted. Late proposals will be rejected. Proposals will be opened in the presence of proponents' representatives who choose to be present at the address below at the time of proposal opening.

Housing Department,
Ministry of National Planning, Housing and Infrastructure
Ameenee Magu,
Maafannu, Male' 20392, Maldives
Tel: 4004700, 4004735
Email: bidsecretariates@planning.gov.mv

ANNEXURE 1
Details of proposed team (This forms a part of proposal)

Role (Specialty Area/Team Leader/Team Members)	Name	Academic and Professional Qualification (Certificate are required to be presented)	Work Experience (Certificates/Reference Letter are required to be presented)
Lead Developer			
Database engineer			
Frontend			
Backend			

ANNEXURE 2
Price and Delivery Duration

Bidder Name: …………………………………………………

Price:

	Amount (MVR)	GST (MVR)	Total (MVR)
Price for Service	……………………………	……………………………	……………………………
Price for Service in words.	……………………………	……………………………	……………………………

Delivery Duration (in Calendar Days): ………………………………………………………..