



**Chhatrapati Sambhajnagar Municipal Corporation( Maharashtra)**

NO/CSMC/SWM/2023/482

Date: 04/10/2023

**Request for Expression of Interest**

Name of work: Chhatrapati Sambhajnagar Municipal Corporation and Aurangabad smart city intends to develop a mobile application to monitor and inform citizens about the location of daily solid waste management vehicles and other emergency vehicles.

CSMC invites for the above said works. The details of the bid are available in <https://www.aurangabadmahaplaika.org/>. The EOI document can be downloaded from given website. The last date for offline submission for the bid is 10 October 2023 upto 15:30 at Solid waste management department, CSMC.

सोमनाथ जाधव  
उप आयुक्त-5 तथा  
घनकचरा व्यवस्थापन विभाग

## Request for Expression of Interest

### **(Know your vehicle mobile application For**

### **Chhatrapati Sambhajinagar Municipal Corporation)**

Chhatrapati Sambhajinagar Municipal Corporation and Aurangabad smart city intends to develop a mobile application to monitor and inform citizens about the location of daily solid waste management vehicles and other emergency vehicles. The Solid Waste Management Department in the Municipal Corporation is a highly crucial department. Approximately 300 garbage trucks operate throughout the city every day. These trucks work from around 5 AM in the morning until late at night, following schedules set for each department.

The scope of work envisioned includes, but is not limited to:

1. Supply, installation, testing, commissioning, customization integration, of the application, system software, database, and any other software mentioned in this document or required for the purpose of satisfying the functional requirements mentioned in this document
2. Provision of cloud based data center
3. Training of CSMC staff of application
4. Integration of software with other CSMC software as required for the purpose of satisfying the functional requirements mentioned in this document
5. 1 year warranty and 2-year comprehensive annual maintenance
6. The know your vehicle mobile application shall integrate with other CSMC application modules required to fulfill the functional specifications mentioned in this document and providing post implementation support along with Software Updates / upgrades at CSMC HQ, Aurangabad.
7. The supply shall include supply of mobile application software package licenses for mentioned functional specifications and the tools, accessories, databases or any other hardware, software to make the solution work as per the requirements of CSMC
8. The project execution period shall be 2 months. The project warranty period shall be 1 year after Go-live. The Comprehensive Annual Maintenance Contract period shall be shall be 2 years, after the completion of the warranty period.
9. The bidder shall perform all such work and / or supply all such items, tools, resources, equipment and services not specifically mentioned in the scope of work but that can be reasonably inferred as being required for successful implementation and completion of this assignment without any additional cost to CSMC
10. Till the software configuration, customization, migration and integration are completed, the agency shall manage the system on its own development platform (on the cloud). Once the software is ready for use, the data center on the cloud shall be deployed
11. The bidder shall provide comprehensive solution & IT infrastructure sizing, based on the information provided by CSMC. The sizing estimate shall include detailed server configuration, network architecture, platform to be used, data storage scheme based on number and type of users, CSMC expected service levels, desired response time etc.
12. The bidder shall customize the Application to suit CSMC's functional and technical requirements as mentioned in this document and identified during the requirements gathering phase at the project initialization. Customization shall include provision of interfaces & data entry field in Marathi language wherever applicable.

13. During the course of the project, it shall be the responsibility of the Bidder to ensure the application is integrated to the third party systems. The bidder shall be responsible for liaisoning with service providers, other IT vendors, agencies, Govt./ Non-Govt. Organizations.
14. The mobile application offered by the bidder shall be compliant with the Mobile Governance guidelines (Framework for Mobile Governance) issued by Government of India, Ministry of Communications and Information Technology & Department of Information Technology in its latest releases.

**Functional Requirements:**

1. A mobile application to track Solid waste management vehicles, emergency vehicles, water tankers and all other essential service vehicles of Ch.Sambhajinagar Municipal Corporation need to be developed for citizens and administration usage.
2. Citizens should have the capability to perform the following actions within the application:
  - a. . Vehicle Tracking:  
Citizens should be able to track the real-time location of vehicles.
  
  - b. Estimated Time of Arrival (ETA):  
Citizens should be provided with the estimated time of arrival for the tracked vehicles.
  
  - c. Search for Nearby Vehicles:  
Citizens should be able to search for vehicles located in close proximity to their current location.
  
  - d. On-Demand Vehicle Booking:  
Citizens should have the option to book nearby vehicles on demand. This booking process should involve a payment transaction.
  
  - e. Proximity Notification:  
A notification containing a link should be sent to the citizen when a vehicle approaches within 100 meters of their property.
  
  - f. User Interfaces for Admin, Citizens, and Departments:  
The application should offer separate interfaces tailored for administrators, citizens, and different departments involved.
  
  - g. Report Generation and Data Analysis:  
The system should facilitate the generation of reports and enable data analysis related to the tracked vehicles.
- The software for know your vehicle mobile application shall be an integrated, ready to be deployed, software suite. Chhatrapati sambhajinagar municipal corporation is interested in having the solution with minimal customization.
- The envisaged system should be designed to meet the relevant STQC Standards.
- The application shall conform to Indian standards of information security, published from time to time by MEITY as well as smart city related application development and customized standards published by the Governments.

- The know your vehicle mobile application shall be able to integrate with the current as well as upcoming applications in a seamless fashion. It shall be possible to login to both the applications through single sign-on for applicable users.
- The system will be centrally deployed and globally accessed. Access shall not be restricted locally.
- The system shall be designed to be scalable and extensible.
- The software, along-with all of its sub-systems shall be capable of operating in an environment requiring a single sign-on.
- All application components shall have a mobile based user interface with common look and feel and user friendliness with good looking graphical interface.
- The application shall be compatible with android operating systems.
- All systems shall take into account appropriate security, performance, efficiency and maintainability issues.
- Data shall only be accessed through an application to create, update and delete transactions.
- The system shall support load balancing at the web, application and the database layers of the system.
- The application shall be workable with the Disaster Recovery IT infrastructure of the data center with functions like real time failover without data loss.
- The latest version of the software shall be quoted. Bidders are required to mention the version number of the application.
- The bidder shall prepare technical manuals to enable configuration, customization, enhancement, deployment of know your vehicle mobile application and make the same available to chhatrapati sambhajinagar municipal corporation .
- The offered know your vehicle mobile application product shall have Country Specific Version for India with statutory requirements incorporated and should have a localization support in terms of language support & SOPs specific to India.
- The bidder shall be capable of providing 24 X 7 support services on functional and technical issues, upgrades, bug fixes etc. in person or through remote arrangements with resolution time commitment of 24 hrs.
- The product OEM shall have application support roadmap for the proposed solution for a minimum period of ten years from the date of commissioning of the solution.
- The solution is required to cover all the functional requirements mentioned in this document and provide modularity that should support addition/removal of one or more modules as and when required. However, these modules should be seamlessly integrated in the core application system
- The source code of application (in case proposed application is open source) / customization (in case proposed application is proprietary) shall be owned by CHHATRAPATI SAMBHAJINAGAR MUNICIPAL CORPORATION. The database shall be completely owned by CHHATRAPATI SAMBHAJINAGAR MUNICIPAL CORPORATION.
- The solution shall be extensible to address new or changing business scenarios and business rules without having to do major rewrite of the software components.
- The solution shall provide all the relevant leading technology (e.g. XML, Flat file, messaging etc.) to meet the integration requirements. The bidder shall specify the methodologies of the integration with the sub-systems mentioned in the EOI document including products / tools required for the integration.

- The solution shall have necessary audit trails for the integrated application. It shall be possible to trace the transaction to the source application / application user through audit trails.
- The configuration recommended / proposed shall have capability of handling transactions for the next 10 years keeping in mind the application response guidelines mentioned in the EOI or as finalized with the successful bidder. The bidder shall consider an increase of around 20% - 25% in the number of transactions and storage.
- The proposed system architecture / configuration shall be sized to ensure the system operations at approximately 70% utilization.
- The bidder shall consider 100% concurrency of the estimated number of users by the bidders.
- The proposed solution shall have functions for User access control, security and backup.
- The bidder shall propose appropriate security architecture for remote access.
- All application components of the solution shall be accessible through a Single Sign-on through encrypted password.
- Know your vehicle mobile application should support PKI / Digital Certificate based two (multiple) – factor authentication for all types of users & transactions.
- All external interfaces should have a secure functionality in that all transactions should take place through the https protocol.
- The solution shall have the capability to define security authorization control to the Solution through the job roles defined in the organizational structure. It shall provide the capability to define user groups and group level access control to individual or groups of applications as per the organizational structure.
- Changes / customizations made to the application shall be separate from the core code of the application.
- It shall be possible to apply updates & upgrades – major or minor, as and when released by the OEM of the application to the customized application
- The application should provide support for data entry in English and Marathi. The application should support Unicode format
- The bidder shall furnish a certification from the application vendor/s confirming the compatibility of the application/s with the future updates and upgrades without losing the customized component and without making any additional changes or configurations to the application/s.
- Reports
  - It is assumed that the application delivers a standard set of reports from various modules.
  - It is anticipated that certain customizations in the standard reports or designing of new reports may be required to fulfill the functional requirement of Chhatrapati sambhajinagar municipal corporation . List of such reports and specifics shall be finalized during the system study / analysis phase of the implementation effort.
  - In addition to the reports requirement, the know your vehicle mobile application shall have a custom report designing tool to facilitate the users to define their own reports with selectable fields across all modules and user roles.
  - The application shall provide a dashboard for real time reports as per requirement of the user
  - The application dashboard will be monitored at ICCC and CSMC SWM department.

- The Application dashboard should have the capability to track all the integrated vehicles and to schedule and route the vehicles depending upon the requirement of Administration.

## INVITATION

1. The Municipal Commissioner on behalf of the CSMC hereby city intends to develop a mobile application to monitor and inform citizens about the location of daily solid waste management vehicles.
2. The bid have to be submitted in two envelope system i.e. i) Technical bid ( as per annexure 3) & ii) Financial Bid ( as per annexure 4)
3. The bidders are required to submit both the sealed envelopes at the 3<sup>rd</sup> floor, Solid Waste Management Department, Administrative building, Town hall, Aurangabad.
4. The last Date and time for receipt of bids through the e-tendering portal <https://aurangabadmahapalika.org/> and will be opened as per e-portal from the last date and time of receipt of bids. If the office happens to be closed on the date of opening of the bids as specified, the bids will be opened on the next working day at the same time and venue.

Interested applicants may submit Expression of Interest to:

[Municipal Commissioner](#)

Chh. Sambhajinagar Municipal Corporation

Maharashtra

Qualification Criteria:

Sr. No.	Condition	Documents Required
<b>A.</b>	<b>Bidder Qualifications</b>	
A.1.	a. The Bidder shall be a single entity registered under the Companies Act or Partnership Act, Proprietorship in India b. The Bidder shall be in operation in India for a period of at least Three (3) years ending the last date of the publication of the BID.	Copy of Certificate of Incorporation or equivalent; Pan Card; GST Registration; Memorandum and Articles of Association; a board resolution OR power of attorney in the name of the person executing the bid, authorizing the signatory.
A.2.	The bidder should be in the business of providing technology solutions for at least Three (3) years ending the last date of the publication of the BID.	Purchase orders or completion certificates of projects, over the past Three years.
A.3.	The turnover of bidder should be <b>at least Rs. 40 lakhs</b> from the relevant area of business, during the last three consecutive financial years. (I.e. 2020-21, 2021-22, 2022-23).	Certification from a statutory auditor, duly stamped and signed regarding the turnover being from the relevant area of business shall be submitted.
A.4.	The bidder, its subsidiaries, its sister companies, or its OEM partners shall not be under a declaration of ineligibility issued by any state/central government department or undertaking, within India.	A self-declaration to this effect shall be submitted. Details of all projects under arbitration shall be submitted. Format is provided in Annexure
<b>B.</b>	<b>Bidder Work Experience</b>	
B.1.	The bidder shall have experience in implementing at least  <b>One (1) completed similar work of the value of at least Rs 25 lakhs</b> OR  <b>Two (2) completed similar works of the value of at least Rs. 9 lakhs each.</b>  OR  <b>Three (3) completed similar works of the value of at least Rs 5 lakhs each.</b>  “Similar work” is defined as the supply, installation, commissioning, integration with external systems, customization, testing, and maintenance of a mobile application, website and relevant software project.	Purchase orders or work completion certificates and client contact details.
B.2	The bidder shall have at least 12 personnel on its rolls with the following experience & expertise:	List of personnel & their CVs self certified by the HR

Sr. No.	Condition	Documents Required
		department of the company

“corrupt practice” means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution; and

(i) “fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Government, and includes collusive practice among Tenderer/Partner/Individual Firm/Partner/Individual Firms (prior to or after tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the Government of the benefits of free and open competition;

(a) will reject a proposal for award if it determines that the Tenderer/Partner/Individual Firm/Partner/Individual Firm recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;

(b) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a Government financed contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a Government-financed contract.



**ANNEXURE 3**

**FORMAT FOR TECHNICAL BID PROPOSAL**

**(enclosed with supporting documents)**

<b>A. PERSONAL INFORMATION</b>		
1.	Full Name of Applicant Firm	
2.	Date of Incorporation	
3.	Average Annual Turnover in the last three Financial Years	
4.	Address	
	Present	
	Permanent	
5.	Tel. No / Mob. No.	
6.	e-mail and contact person details	
<b>B. PROJECTS HANDLED</b> (Self attested copies of certificates to be attached for each project)		
1.		
2....		

Place:

Date:

Signature

## ANNEXURE-4

### FORMAT FOR FINANCIAL BID PROPOSAL

Financial Proposal shall be placed in a separate sealed envelope clearly marked on the cover as "Financial Bid Proposal"

Name of the Firm:

### PRICE SCHEDULE

BOQ Number	Scope	Deliverables	Price
<b>PHASE 1</b>			
<b>A. Application Software</b>			
1.	Supply of Know your Vehicle Mobile Application for Phase 1 vehicles (Solid waste management vehicles)	1.Documentation (SRS & SDD) 2.Application Deployment on testing environment 3.Gathering information for third party integration and start the process 4.Customise the application as per CSMC needs 5.Migrate existing data into the application	
2.	Deployment and training for Phase 1 vehicles (Solid waste management vehicles)	1.Carry out User Acceptance Testing 2. Deployment of application on production environment 3.Provide training to CSMC staff 4.Uploading the application on google play store	

<b>PHASE 2</b>			
3.	Supply of Know your Vehicle Mobile Application for Phase 2 vehicles consisting of CSMC Fire trucks, drainage choke-up vans, water tankers, ambulances	1.Documentation (SRS & SDD) 2.Application Deployment on testing environment 3.Gathering information for third party integration and start the process 4.Customise the application as per CSMC needs 5.Migrate existing data into the application	
4.	Deployment and training for Phase 2 vehicles consisting of CSMC Fire trucks, drainage choke-up vans, water tankers,ambulances	1.Carry out User Acceptance Testing 2. Deployment of application on production environment 3.Provide training to CSMC staff 4.Uploading the application on google play store	
8	Annual Maintenance Support (1 <sup>st</sup> year after warranty)	Provide manpower with requisite skillsets	
9	Annual Maintenance Support (2 <sup>nd</sup> year after warranty)	Undertake preventive maintenance and routine maintenance. Undertake repairs, rectification, updates, upgrades as and	

		when necessary	
Total Price			

The payment terms against the scope and deliverables are as mentioned below:

BOQ Number	Scope	Deliverables	Payment Timeline
<b>PHASE 1</b>			
<b>A. Application Software</b>			
1.	Supply of Know your Vehicle Mobile Application for Phase 1 vehicles (Solid waste management vehicles)	1.Documentation (SRS & SDD) 2.Application Deployment on testing environment 3.Gathering information for third party integration and start the process 4.Customise the application as per CSMC needs 5.Migrate existing data into the application	40% of capital cost to be given after successful installation of software/application
2.	Deployment and training for Phase 1 vehicles (Solid waste management vehicles)	1.Carry out User Acceptance Testing 2. Deployment of application on production environment 3.Provide training to CSMC staff 4.Uploading the application on google play store	40% of capital cost after Go live on play store
<b>PHASE 2</b>			
3.	Supply of Know your Vehicle Mobile Application for Phase 2 vehicles consisting of CSMC Fire trucks,	1.Documentation (SRS & SDD) 2.Application Deployment on testing environment	10% of capital cost after completion of phase 2

	drainage choke-up vans, water tankers, ambulances	3.Gathering information for third party integration and start the process 4.Customise the application as per CSMC needs 5.Migrate existing data into the application	
4.	Deployment and training for Phase 2 vehicles consisting of CSMC Fire trucks, drainage choke-up vans, water tankers,ambulances	1.Carry out User Acceptance Testing 2. Deployment of application on production environment 3.Provide training to CSMC staff 4.Uploading the application on google play store	10% after Go live on play store
<b>B. Operation and maintenance</b>			
8	Annual Maintenance Support (1 <sup>st</sup> year after warranty)	Provide manpower with requisite skillsets	50% annually (25% half yearly) of OnM cost
9	Annual Maintenance Support (2 <sup>nd</sup> year after warranty)	Undertake preventive maintenance and routine maintenance. Undertake repairs, rectification, updates, upgrades as and when necessary	50% annually (25% half Yearly) of OnM cost

SIGNATURE

(Name) To be signed by the Authorized Signatory of the Firm