Request for Proposal

"Selection of the vendor for Digitization, Geo-referencing & Super-imposition of Layout Plans, Sajra Plans Etc. and development of GIS System for HSVP properties."

RFP Reference no: CITO/HSVP/2023/65301   Dated: 31/03/2023

Haryana Shehri Vikas Pradhikaran
Information Technology Wing
C-3, Sector 6, Panchkula, Haryana
Phone: 0172-2569504
E-mail:queryhsvp@gmail.com

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1   LETTER OF INVITATION

HSVP Invites bids from the eligible bidders for the *"Selection of vendor for Digitization, Geo-referencing & Super-imposition of Layout Plans, Sajra Plans Etc. and development of GIS System having integration with the existing IT System of HSVP".*

Chief Administrator,
Haryana Shehri Vikas Pradhikaran

2 INFORMATION TO BIDDER: DATA SHEET

2.1 INTRODUCTION

1. The name of the Client is: Haryana Shehri Vikas Pradhikaran (HSVP)

   The address and telephone numbers of the Client's Office are:

Information Technology Wing Haryana Shehri Vikas Pradhikaran C-3, Sector 6, Panchkula, Haryana Phone: 0172-2569504 E-mail:queryhsvp@gmail.com www.hsvphry.org.in

2. Name of the Assignment: Selection of the vendor for Digitization, Geo-referencing & Super-imposition of Layout Plans for the property areas so as to develop GIS database of the HSVP properties.

3. The Method of selection of successful bidder: The bidders scoring 70 or more marks in Technical evaluation criteria shall be considered technically qualified and the financial bid of only technically qualified bidders will be opened. The bidder having the least (Tc) Total Cost in the financial bid will be considered successful bidder and will be awarded the contract.

4. The bidders are invited to submit a Pre-Qualification, Technical Proposal, in the formats specified in this RFP. Responses should be in English Language.

5. The bidder must familiarize themselves with HSVP's focus and applicable local conditions, existing applications and take them into account in preparing their Proposals. A brief description of the work carried out by HSVP and the Acts under administrative purview is provided in the Appendix to this document.

6. Key Events and Dates

S.No	Event	Details
1	RFP available on website https://etenders.hry.nic.in	**03/04/2023**
2	Last date for sending written clarifications through e-mail on queryhsvp@gmail.com till 05:00 PM	**10/04/2023**
3	Pre Bid Meeting at 03:00 PM in the Conference, Hall, HSVP, Sec-6, Panchkula.	**11/04/2023**
4	Response to the queries, along with Addendum to the RFP, if any, will be available on HSVP website www.hsvphry.org.in	**17/04/2023**
5	Bid submission date & Time till 5:00 pm	**24/04/2023**
6	Prequalification/Technical Bid Opening at 3:00 pm	**25/04/2023**
7	Date of Technical Presentation	**To be conveyed**
8	Commercial Bid Opening	**To be conveyed**
9	Venue for Pre-Bid Conference	Conference Hall, Haryana Shehri

		Vikas Pradhikaran, C-3, Sector 6, Panchkula, Haryana
10	Cost of RFP Document	Rs 5000/-
11	Earnest Money Deposit	Rs 10 Lac
12	Performance Bank Guarantee	10% of the order value with a validity of six months more than the expiry of contract dates. The Performance guarantee is to be submitted by the successful bidder within 15 days of the award of the contract.

Note 1: Submission of Documents - Online Bidders will also require to physically submit the Bid Document cost / EMD in the form of DD in favour of The Chief Administrator, HSVP, Payable at Panchkula and other document related to Technical bid etc. as uploaded on the website. The documents duly binded, properly tagged and numbered along with EMD and cost of the Tender Request for Proposal shall be sent through speed post or courier or personally and should reach in the office of Chief IT Officer, HSVP, C-3, Sector-6, Panchkula before **25/04/2023 till 11:00AM**.

Note 2: The commercial bid should only be submitted through online mode.

- HSVP will provide relevant information/documents available with it for carrying out the present assignment to the selected bidder only.
- The HSVP will provide limited office space with basic furniture and utilities to the selected bidder and transport arrangements required for this engagement will be the responsibility of the selected Bidder.

Please note:

(i) The costs of preparing the proposal and of negotiating the contract, including visits to the HSVP, are not reimbursable.

(ii) HSVP is not bound to accept any of the Proposals submitted.

(iii) HSVP reserves the right to cancel the tender anytime without specifying any reason thereof.

2.2 CLARIFICATION AND AMENDMENT TO RFP DOCUMENTS

1. Bidders may request a clarification with regard to any part of the RFP document. Any request for clarification must be sent in writing by e-mail to the HSVP's address queryhsvp@gmail.com. All updates/clarifications will be hosted on HSVP Website.

2. The address for requesting clarifications is:

   E-mail:**queryhsvp@gmail.com**

3. Pre bid queries for clarification of the proposal: All queries regarding the bid shall be sent by **10/04/2023** on email at **queryhsvp@gmail.com** with the Header: "**Clarification and amendment to**

RFP documents for "RFP: *Selection of the vendor for Digitization, Geo-referencing & Super-imposition of Layout Plans, Sajra Plans etc. and development of GIS System for HSVP properties"* along with the name and contact number of the official. The bidders can also meet the Chief IT Officer, between 10:00 AM to 01:00PM on working days.

The prerequisite for the above is that the bidder has to register in IT-Wing by depositing the Demand Draft Rs.5000 in favour of Chief Administrator, HSVP.

4. A pre-bid conference will be held at Conference Hall, HSVP, C3, Sector-6, Panchkula, Haryana on **11/04/2023 at 03:00 PM.**

2.3 INSTRUCTION TO BIDDER

INSTRUCTIONS TO BIDDERS FOR E-TENDERING

These conditions will over-rule the conditions stated in the tender documents, wherever relevant and applicable.

Registration of bidders on E-tendering Portal:

All the Bidders intending to participate in the tenders processed online, are required to get registered on the Electronic Tendering System on the Portal https://etenders.hry.nic.in

OBTAINING A DIGITAL CERTIFICATE:

- The Bids submitted online are required to be signed electronically with a Digital Certificate to establish the identity of the bidder online. These Digital Certificates are issued by an Approved Certifying Authority, by the Controller of Certifying Authorities, Government of India.

- In case of online tendering, if the digital certificate issued to the authorized user of a firm is used for signing and submitting a bid, it will be considered equivalent to a no objection certificate / power of attorney / lawful authorization to that User. The firm has to authorize a specific individual through an authorization certificate signed by all partners to use the digital certificate as per Indian Information Technology Act 2000. Unless the certificates are revoked, it will be assumed to represent adequate authority of the user to bid on behalf of the firm in HSVP tenders as per Information Technology Act 2000. The digital signature of this authorized user will be binding on the firm.

- In case of any change in the authorization, it shall be the responsibility of management / partners of the firm to inform the certifying authority about the change and to obtain the digital signatures of the new person / user on behalf of the firm / company. The procedure for application of a digital certificate however will remain the same for the new user.

- The same procedure holds true for the authorized users in a private/Public limited company or L&C Society. In this case, the authorization certificate will have to be signed by the directors of the company.

SET UP OF MACHINE:

In order to operate on the electronic tender management system, the user's machine is required to be set up from the A help file on setting up of the system can be downloaded home page of the website - https://etenders.hry.nic.in or may contact on following:-

Tel: 0172-2707732, 2700275, 1800 3070 2232

Mobile: +91-7878007972 and +91-7878007973

DOWNLOAD OF TENDER DOCUMENTS:

The tender documents can be downloaded by the registered user from the Electronic Tendering System through the Portal https://etenders.hry.nic.in

KEY DATES:

The bidders are strictly advised to follow dates and times as indicated in the Notice Inviting Tenders. The date and time will be binding on all bidders. All online activities are time tracked and the system enforces time locks that ensure that no activity or transaction can take place outside the start and end dates and the time of the stage as defined in the Notice Inviting Tenders.

SUBMISSION OF ACTUAL ONLINE BIDS:

The bidders have to submit their bids online and upload the relevant documents. The process is required to be completed within the date and time as stated in the Notice Inviting Tenders (Key Dates). The electronic bids of only those contactors who have submitted their bid within the stipulated time, as per the tender time schedule (Key Dates), will be accepted by the system. A bidder who does not submit this bid with in the stipulated time will not be allowed to submit his bid by the E-Tendering System.

Note: Bidders participating in e-tendering shall check the validity of his / her Digital Signature Certificate before bidding in the Tenders floated online at e-tendering website https://etenders.hry.nic.in

2.4 PREPARATION OF PROPOSAL

1. Bidders are requested to submit the Proposals in English language. Any printed literature furnished by the bidder can be submitted with the bid; provided that it is accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern.
2. The bidding comprises of two tier systems: Pre-qualification, Technical bid and Financial Bid.
3. In preparing the Technical Proposal, bidders are expected to examine the documents comprising this RFP in detail. The proposal should cover all the aspects of the terms of reference. Any bid not found responsive to the terms of reference shall be rejected. Material deficiencies in providing the information requested may also result in rejection of the Proposal.
4. While preparing the Technical Proposal, bidders must give particular attention to the following:

   a. The bidder shall not associate with individual Consultant(s) and / or other firms or entities in a joint venture relationship to outsource/sub-contract a part or whole of services desired of the bidder as a part of this assignment.

b. The key professional staff proposed should be permanent or on roll employees of the firm. Key professionals selected for the project shall not be changed during the duration of the project without prior notice of 2 months to HSVP. Key resources shall be changed only after approval from HSVP. Any change in resources without prior approvals from HSVP shall invite penalty.

c. Alternative professional staff shall not be proposed, and only one curriculum vitae (CV) may by submitted for each position.

d. Except as specifically provided, **the Technical Proposal shall not include any information relating to the Financial bid.**

5. In preparing the Financial Proposal, Bidders are expected to take into account the requirements and conditions of the RFP document.

6. The Financial Proposal should be exclusive of applicable taxes, duties, fees, levies, and other charges imposed under the applicable local laws.

7. Bidders should express the price of their services in INR only.

8. The proposals and quoted rates must remain valid for 180 days after the date of opening of the financial proposals. During this period, the bidder is expected to keep available the professional staff proposed for the assignment. The HSVP will make its best effort to complete negotiations within this period.

9. Earnest money deposit: The proposal must be accompanied by earnest money deposit of **Rs.5 Lacs** in the form of Demand Draft or Bank Guarantee from any scheduled bank in favour of '**The Chief Administrator HSVP, Panchkula** without which the proposal will be rejected outright. Earnest money deposit will not be accepted in cash. No interest is payable on the amount of EMD.

10. The Earnest money deposit will be returned to the unsuccessful bidders by the HSVP. For successful bidder, the Earnest money deposit will be refunded on submission of Performance Bank guarantee.

2.5 SUBMISSION, RECEIPT AND OPENING OF PROPOSALS

1. Each Bidder shall submit **only one Proposal**.

2. Proposals should be submitted in English Language.

3. Only Prequalification and Technical proposal submission address is:

O/o Chief IT Officer
C-3 Sector -6, HSVP Office Complex
Panchkula, Haryana
0172-2569504
queryhsvp@gmail.com

4. Proposals must be submitted online **not later than 24/04/2023 till 05:00PM**.

5. **The financial proposal shall be submitted in online mode only.**

6. An authorized representative of the firm should **date and sign all the pages of the Proposal**. The representative's authorization should be confirmed by a written power of attorney accompanying the Proposal.

7. Technical Proposal Contents: The technical Proposal should contain:

a. Proposal Submission Form (**as in Section 10.2)**

b. Checklist for Pre-Qualification Criteria along with relevant documentation showing the proof of eligibility as outlined in the Pre-qualification Criteria (as in **Section 10.3)**

c. Checklist for Technical Evaluation (**as in Section 10.4**)

d. A declaration of any actual or potential conflict of interest.

8. The Financial Proposal should only indicate prices **without any condition or qualification** whatsoever and should exclusive applicable taxes levied by Central & State, as may be applicable in relation to activities proposed to be carried out. Any **upward or downward** revision in taxes, duties, fees, levies and other charges levied by Central & State during the period of contract shall be to the HSVP's account.

9. Bidders should express the price of their services in **INR only.**

10. The original and all copies (including Soft Copies) of the Technical Proposal should be placed in one envelope and should be **marked as 'Technical Proposal for''''** (original and all copies including soft copies) **for "*Selection of the vendor for Digitization, Geo-referencing & Super-imposition of Layout Plans, Sajra Plans etc. and development of GIS System for HSVP properties*".**

11. After the deadline for submission of proposals the Technical Proposal shall be opened immediately by the evaluation committee.

12. Proposals and quoted price must remain **valid for 180 days** after the date of opening of financial proposals.

13. From the time the bids are opened to the time the contract is awarded, if any Bidders wish to contact the HSVP on any matter related to its proposal, it should do so in writing at the address of the HSVP's office. Any effort by the Bidder to influence the HSVP in the HSVP's proposal evaluation, proposal comparison or contract award decisions may result in the rejection of the proposal.

2.6 PRE-QUALIFICATION CRITERIA

Pre-Qualification

Before opening and evaluation of technical proposals, bidders are expected to meet the following pre-qualification criteria. Bidders failing to meet any of these criteria or not submitting requisite supporting documents / documentary evidence for supporting prequalification criteria are liable to be rejected summarily.

S.No	Criteria	Supporting Documents
PQ-1	**Legal Entity:** The bidder should be a company registered under Indian Companies Act,1956/2013or a Partnership Firm registered under Indian Partnership Act,1932 or a Proprietorship firm or Limited Liability Partnership Firm under Limited Liability Partnership Firm Act 2008. The company/firm should have been in operations for at least 5 years.	Copy of Certificate of Incorporation signed by Authorized Signatory of the Bidder or A copy of the partnership deed/instrument of partnership or a Copy of LLP agreement or any other relevant document. Copy of Article of Association / Memorandum of Understanding
PQ-2	The bidder should have in its name PAN (Permanent Account Number) with Income Tax authority in India.	Copy of the PAN Card signed by Authorized Signatory of the Bidder
PQ-3	The bidder should have in its name GST Registration number in India.	Copy of GST Registration Certificate signed by Authorized Signatory of the Bidder.
PQ-4	**Financial: Turnover** The Bidder should have at least average turnover of INR 5 (Five) Crores in the last three years. (FY 2019-20, 2020-21, 2021-22) from the business area of Base Map creation/Updating, Surveying, GIS Application Software Development, and Implementation for last 3 audited financial years (2019-20, 2020-21, 2021-22).	CA Certificate with CA's Registration Number/ Seal clearing mentioning the Turnover, Net worth and Copies of Audited Balance Sheets.(Provisional is accepted for Current AY) Incase balance sheet of 2021 is not available then certified copy of provisional balance sheet be provided
PQ-5	**Financial: Net Worth** The bidder should have a positive net worth as on 31-03-2023	CA Certificate with CA's Registration Number/ Seal

S.No	Criteria	Supporting Documents
PQ-6	**Project Experience:** The Bidder should have been engaged in t h e following category for any State/ Central Government Organization/PSU in last 5 years in India. a) Digitization, Geo-referencing & Superimposition of Layout/Demarcation Plans, Revenue/Cadastral/Base Maps in Digital Format on Land use Maps for at least 5 nos. of Towns in India and completed in past 5 years, as on date of Bid submission. b) Base map Creation, Geo-referencing & digitization of base map in India for at least 200 square kilometers of area in India completed in past 5 years. c) Property Survey & GIS mapping of minimum 300000 Properties/ assets survey in any part of India.	Work Orders/ Service Agreement or Completion Certificate from the client
PQ-7	The Bidder should have Past Experience in implementation of COTS/ Open Source Web based GIS completed and operational during the last 5 years, as on Date of Bid Submission, for Government or its Autonomous / PSU/ Private Sector in India.	Work Orders / Service Agreement or Completion Certificate from the client / Work order of the ongoing projects will be accepted along with certificate of work report from client incase at least 50% of work has been accomplished satisfactorily.
PQ-8	The Bidder will setup an office in Tricity-Chandigarh/ Delhi-NCR, within 1 month after the award of job.	Self-Attested undertaking by Company / Firm / Agency/ Authorized representative
PQ-9	**Quality Certificate:** The bidder must possess a valid: ISO certificate 9001:2015 (for Consulting and Implementation services in the Field of GIS and Remote sensing).	Copies of relevant certificates valid as on date of bid submission
PQ- 10	Bidder should have experience in working in a project in a State/ Central Government Organization/PSU /Development Authority/State Institute for Town Planning Urban Local Body/ Municipal Corporation in India.	Copies of relevant experience certificates valid as on date of bid submission
PQ-11	**Undertaking:** Bidder & OEM (Products) should not be debarred / black-listed by Central / State Government in India, at the time of submission of the RFP, shall not be allowed to participate in this tender. Bidder need to submit a self-certification in this regard.	Self-Attested Letter by Company / Firm / Agency
PQ-12	**Manpower** The Bidder should have at least 50 permanent professional resources working in the field of GIS Expert (creation/collection), Urban Planner, Patwari, and IT-Professional.	Certificate from the Auditor/Company Secretary/Head HR with summary of profile of 50 (Min) resources.

S.No	Criteria	Supporting Documents
PQ-13	Consortium Bidding: - Allowed up to 2 members.	Consortium Bidding is allowed by the prime bidder as per statutory provision, however Prime bidder shall be solely responsible for the end to end execution of the project.
PQ-14	Should submit an escalation matrix with contact details with mobile & email address up to head of the organization	Escalation Matrix

2.7 TECHNICAL EVALUATION CRITERIA

S. NO.	Criteria	Basis of Valuation	Maximum Marks	Supporting documents
A	**Commercial & Professional Strength of the Bidder**		**15**	
A1.	Average Turnover of Bidder / Consortium during the last 3 financial years. (FY 2019-20, 2020-21, 2021-22).	1. 5 Crores = 5 marks 2. >5 Crores - >10 Crores =7.5 marks 3. ≥INR.10Crore**: 10 marks (From business area of Base Map creation/ Updating, Surveying, GIS Application Software Development, and Implementation in the last 3 audited financial years.)	10	CA Certificate With CA's Registration Number/Seal clearly mentioning the Turnover or Audited Balance Sheet (Certified Provisional is accepted for Current AY)
A2	Certifications	A. CMMi Level 5 = 2 Marks B. CMMi Level 3 = 1 Marks C. ISO 27001 (Information Security Management System) = 1 Marks D. ISO 9001 (Quality Management System) = 1 Mark	5	Relevant copy of Certificate highlighting validity
B	**Experience of the Bidder**		**55**	
B1	Prior experience in working in a project in a State/ Central Government Organization / PSU / Development Authority / State Institute for Town Planning Urban Local Body / Municipal Corporation in India	Digitization, Geo-referencing & Superimposition of Layout Plan, Base Maps in Digital Land use Maps 1. Up to 5 towns :**2 marks** 2. >5 towns and <=10 towns :**3 marks** 3. >10 towns :**5 marks**	5	Work Orders/ Service Agreement and Completion Certificate from the client. In case of ongoing projects interim certificates to be issued by client with atleast 60% work is completed satisfactorily will be accepted.

S. NO.	Criteria	Basis of Valuation	Maximum Marks	Supporting documents
B2	Prior experience in working in a project in a State/ Central Government Organization / PSU / Development Authority / State Institute for Town Planning Urban Local Body / Municipal Corporation in India	Base map Creation, Geo-referencing & digitization of base map in India. 1. For at least 200 square kilometers:**2 Marks** 2. >200 and <2,000 square kilometers :**3 marks** 3. ≥2,000 square kilometers: **5 marks (**Work Orders/ Service Agreement or Completion Certificate from the client.**')**	5	Work Orders/ Service Agreement and Completion Certificate from the client. In case of ongoing projects interim certificates with atleast 60% completed works is accepted
B3	Prior experience in working in a project in a State/ Central Government Organization / PSU / Development Authority / State Institute for Town Planning Urban Local Body / Municipal Corporation in India.	1. Property survey and GIS Mapping for revenue Updation for at least 3,00,000 Properties: **2 marks** 2. >3,00,000 and <4,00,000 Properties : **3 marks** 3. ≥4,00,000 and <5,00,000 Properties : **6 marks** 4. ≥5,00,000 Properties:**10 marks**	10	Work Orders/ Service Agreement and Completion Certificate from the client. In case of ongoing projects interim certificates with atleast 60% completed works is accepted
B4	Past experience in development and commissioning of Web GIS Applications for Central Govt. of India / Indian State Govt. Organizations with COTS or Open source platform in the last 5 (Five) years.	Each relevant application will carry 1 mark to maximum of 10 Marks	10	Work Orders/ Service Agreement and Completion Certificate from the client. In case of ongoing projects interim certificates with at least 60% completed works is accepted
B5	Bidder should have Completed Development and Commissioning Live Web GIS Application for Central Govt. of India / any Indian State Govt. Organization / Indian Public sector undertakings in the last five years with aggregate value of the software part of the projects excluding cost of surveys, Hardware and COTS associated licenses.	Each 2 Crores of the aggregate value will carry 2 Marks to a maximum of: 10 Marks.	10	Work Orders/ Service Agreement and Completion Certificate from the client. In case of ongoing projects interim certificates with at least 60% completed works is accepted

S. NO.	Criteria	Basis of Valuation	Maximum Marks	Supporting documents
B6	Past experience in Commissioning of Machine learning enabled geo-spatial technology applications to auto detect the land use changes and encroachments.	1. If it doesn't meet the criteria: 0 Marks. 2. If meets the criteria: 5 Marks	5	Work Orders/ Service Agreement and Completion Certificate from the client. In case of ongoing projects interim certificates with atleast 60% completed works is accepted
B7	The Bidder should have experience in using machine learning and AI Algorithms on Satellite or Drone based images for Central Govt. of India / Indian State Govt. Organizations.	1. Minimum 2 layers = 2 Marks 2. More than 2layers = 5 Marks	5	Work Orders/ Service Agreement and Completion Certificate from the client. In case of ongoing projects interim certificates with atleast 60% completed works is accepted
B8	Past experience in development of Web GIS Application with integration with existing 3rd party applications.	1. Integration Up to 3 applications= 2 marks 2. Integration > 3 applications = 5 Marks	5	Work Orders/ Service Agreement and Completion Certificate from the client. In case of ongoing projects interim certificates with atleast 60% completed works is accepted
C	**Technical Presentation**		**30**	
C1	Proposed Approach & Methodology in the Technical Proposal	Qualitative assessment based on Demonstration of understanding of the Department's requirements through providing: -Proposed solution, - Technologies and Use cases -Challenges - Risks -Mitigation plan - Milestones and deliverables -Approach & Methodology	10	Marks would be allotted based on the Technical Presentation. The presentation would be considered as part of the Technical Proposal.

S. NO.	Criteria	Basis of Valuation	Maximum Marks	Supporting documents
C2	Technical demonstration on the Web GIS, Remote Sensing, Mobile Application and Machine Learning.	The bidder should demonstrate some of the functionalities/use cases listed in the Software Specification section of this RFP. The demonstration should be made in a web based browser. HSVP shall provide the sample data in advance to all bidders for evaluation and comparison between the desired outputs. Scheduled date shall be communicated by HSVP to each bidder for demonstrating the functionalities/use cases.	10	Marks would be allotted based on the Technical demonstration of the desired output and user friendliness. The presentation Would be considered as part of the Technical Proposal.
C3	Team to be deployed onsite/offsite in respect to the Team Composition.	Qualitative assessment based on the Team Proposed and Experience of Team Members and allocation of resources in respect of the Project Timelines and Proposed Work Plan.	10	Details to be provided in Technical Proposal
		Share resume of the key professionals specially those mentioned in PQ-12.		
Total Marks			**100**	

2.8 EVALUATION PROCESS

The proposal review committee may require written clarifications from the bidders including presentations, if considered necessary to support bid evaluation. The primary function of clarifications in the evaluation process is to clear ambiguities and uncertainties arising out of the evaluation of the bid documents. Clarifications provide the opportunity for the committee to state its requirements clearly and for the bidder to more clearly state its proposal. All such clarifications shall be uploaded on HSVP website. Bidders are advised to visit HSVP website frequently to see such clarifications.

Depending on the evaluation methodology mentioned above, each Technical Bid will be assigned a technical score (TS) out of a maximum of 100 points as per the aforementioned Technical Evaluation Criteria.

Minimum Technical score required to qualify for the Financial evaluation is 70Marks.

2.9 FINANCIAL EVALUATION

Only Bidder and those bidders who qualify the Technical Evaluation shall be considered for evaluation of financial bid.

The bidder should be careful in submitting the financial proposal. The evaluation committee will take the total amount quoted as the final bid value.

2.10 FINAL EVALUATION

Bidder who scores more than 70% of marks in Technical Qualification will qualify for the Commercial Evaluation.

a) Only fixed price financial bids indicating total price for all the deliverables and services specified in this bid document will be considered.

b) Any conditional bid would be rejected.

c) Arithmetical errors will be rectified on the following basis: "If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail".

d) All queries and replies will be uploaded on the HSVP & E-tender website.

e) Completion of work in 9 months from the award of work.

2.11 AWARD OF CONTRACT

The contract will be awarded to the successful bidder by way of issuing letter of Intent (with least Total Cost (TC) inclusive of all taxes) and an agreement will be signed by the bidder within 15 days of the issuance of LOI.

2.12 CONFIDENTIALITY

Subject to the other provisions of this RFP, information relating to evaluation of proposals and recommendations concerning shall not be disclosed to the bidders who submitted the proposals or to other persons not officially concerned with the process till award of the contract.

2.13 DURING THE CONTINUITY OF THE CONTRACT IF ANY RELATED WORK / ACTIVITY ARE FOUND TO BE ACHIEVED BY ANY GOVERNMENT AGENCY, THE BIDDER WILL HAVE TO MAKE USE OF THAT DATA FOR THE INTEGRATION WITH EXISTING SYSTEM.

3 SCOPE OF WORK

3.1 Digitization and transfer of data pertaining to about 1650 land acquisition Awards of about 450 Revenue Estates on the Sajra Plans, 1600 Approved Layout plans, latest approved demarcation plans as well as zoning plans through Ground Truthing. Superimposition on the revenue plans and satellite imagery along with Geo referencing of all HSVP properties to help in effective monitoring at HQs level and reducing the dependency on field offices for various types of reports in which display and location wise Search criteria for approved Layout plan Maps through Digitization, Ground Truthing and Superimposition of Layout Plans, Demarcation Plans etc. through GIS enabled system. It will cover spatial dimension which facilitates to visualize outlook of Zones at dynamic geographical scale.

- o Scanning, Digitization & Geo-referencing of HSVP's Property/Land spread across HSVP jurisdiction & display on GIS System.
- o Procurement of latest high resolution satellite imagery (native resolution of 40 cm or better) for HSVP and Urban Estates Department jurisdiction of all HSVP properties in all its Urban Estates. HR satellite images will be procured by HSVP.
- o Geo referencing and superimposition of the Satellite Imagery on the HSVP properties.
- o Digitization of Sajra Plans, Approved Layout Plans demarcation plans and zoning, undertaking ground truthing and super Imposition of Layout plans and Demarcation plans etc., over GIS Mapping of HSVP Properties.
- o Collection and Collation, available soft copies of sajra plans of the concerned Revenue Estates (award wise), with due marking of boundaries of acquired land, land under litigation and released land.
- o Collection, collation and superimposition of Urban Estate wise, soft copies of all the latest approved demarcation plans of various sectors in an Urban Estate, along with soft copies of approved demarcation plans of all the Shopping Centers / convenient Shopping Centers or Commercial belts etc. to be obtained from the concerned District Town Planners.
- o Delineation of all the unplanned, encroached, litigated etc. pockets in a sector for their further monitoring on the HSVP Urban Estate. Temporal HR satellite images will be procured by HSVP.
- o Realize the desired functionalities such as area, property mapping with details and allotment or property availability status (PLOTS and Vacant Land etc. throughout Haryana), which are multi-stories as well; the various properties are spread over approved Layout Plans and Demarcation Plans.
- o Commissioning of GIS based web portal
- o Integration with the existing IT system of HSVP
- o GIS based web Application and Dashboards
- o Leverage on the latest advances in AI/ML and mobile technology to identify, record and address changes to land parcels in the area of Interest.
- o Development of Machine Learning based Automatic layer extraction from Drone Data Imagery.

o Mobile Application
o The activity is to be completed in nine months.

3.2 HSVP intends, through this Tender, to set up a GIS lab at HSVP HQs, with all compatible infrastructure and a Web based system to display approved Layout plans after Scanning, Digitization & Geo-referencing of HSVP's Property/Land etc. spread across HSVP jurisdiction – a Decision Support System, for efficient and transparent working. With this initiative, HSVP wants to appoint a suitable System Integrator firm for Integration of all the above-mentioned data with the existing online applications of HSVP like plot PPM (Plot & Property Management), FAS (Financial Accounting System), Building Plan approval and grant of Occupation Certificate etc.

   o Setting up of a GIS lab at HSVP HQs, with all compatible equipment's/infrastructure and man power for smooth operation / implementation of all above digitized data / plans.

   o Generation of GIS based MIS reports for effective land management and monitoring of acquired HSVP land especially the unplanned, encroached, litigated etc. pockets.

   o The HSVP will supply COTS software based on the specifications mentioned in the RFP to the successful bidder for design development and implementation of GIS system for desktop based editing at HSVP HQ- GIS Lab as per scope of work. HSVP propose to use COTS software for establishing the GIS lab for which following licenses will be procured:-

- COTS GIS Desktop Software for data updating, query, analysis and report generation.
- Remote Sensing Software for geo-referencing, image processing, change detection.
- GIS Server Software for visualization and integration of existing Web Application
- However, Bidder is free to use available COTS software provided for any open source software.

   o Various Haryana Government Department may have digitized maps available for LAYOUT SCHEMES, which will be accessed and used by HSVP in this project. The successful bidder will create the provisioning of integration of all such features within the application for End to End use.

3.3 The Proposed System must cover the following features:-

   a. **Procurement of Satellite Imagery:**

HSVP will procure the multispectral image of very high-resolution satellite data of spatial resolution (native resolution of 40 cm or better) from NRSC Hyderabad. HSVP will issue a letter to concerned Authorities for quick procurement of Satellite Imagery with following Attributes:

Resolution   : native resolution of 40 cm or better

Area Coverage: Present Spread of HSVP Areas with sufficient buffer.

DataProduct: Digital and Hard Copy Images

b. **Coordinate Collection, Digitization and Geo referencing of Layout and Demarcation Plans (Maps):** Bidder will do the DGPS Coordinate collection from ground control point (GCP) for Image Geo-referencing. The layers of Plot will be digitized and geo-referenced based on the coordinate collections. The following activities will be done under Coordinate Collection, Digitization and Geo referencing of Maps: -

   - Image Geo-referencing using DGPS ground control point (GCP) available with clients
   - Digitization of Drawings
   - Geo reference of drawings
   - Generation of shape files
   - Creation of Geo reference maps

c. **Implementation of GIS:** After Geo Referencing and Shape file generation, Bidder will do the GIS mapping of Boundaries, Property layer, infrastructure layers on GIS System. Zone/Ward information along with Land Use details provided by HSVP will be mapped on GIS System. The following activities will be done under GIS implementation: -

   - Mapping of State Boundary
   - Mapping of Districts Boundary
   - Mapping of Zone Boundary
   - Mapping of HSVP Sector Boundary
   - Mapping of HSVP Property Layer
   - Prepare of GIS Database
   - Preparation of Land Use Database

3.4 Functional Requirement of Web GIS portal

3.4.1 Commissioning of GIS based web portal

For easy visualization and access, System Integrator needs to build the Geo-portal for all the 1650 Awards of 450 Revenue Estates, 1600 Approved Layout plans, Sajra Plans, latest approved demarcation plans as well as zoning plans. The architecture needs to be designed to meet the performance with spatial and non-spatial and various functional workflows of fully functional for the project area. If any license structure exists, it should be provided considering lifetime use, with unlimited number of users and unlimited number of layers, objects and interfaces.

3.4.2 Integration with the existing IT system of HSVP

The system integrator will integrate existing applications the existing online applications of HSVP like plot PPM (Plot & Property Management), FAS (Financial Accounting System), Building Plan approval and grant of Occupation Certificate etc. using a common logic. The existing modules may be accessed or viewed through new dashboards which may be designed and developed by the system integrator. Only web services through API will be provided from respective agencies to carry out the work. Legacy data if any related to the existing application may have to upload migrate by the System Integrator.

3.4.3 User Management

a) The application will have a login page and access to the application will be through valid login credentials.

b) User registration or getting the login credentials will be a manual process. User will manually request for login credentials to administrator. Administrator will provide the login credentials to the user.

c) User will login with the provided credentials. A backend database will be used to store the user credentials and other project/user related information. Authentication will be done based on the information in the backend database.

d) After Logging in user will have the option to change the password and set a new password.

e) Currently there are three user groups namely Administrator, Standard and Normal. A user logging into the application must belong to one of the groups. It is to be noted that a user is associated with a single group. It may not be possible to have the same user to be assigned multiple groups. If such a case is required then a new user must be created.

f) Based on the group to which the user belongs the appropriate data shall be loaded in the application.

g) Based on the group to which the user belongs the required functionalities that the user can access shall be displayed in the application. It is to be noted that access to functionalities is based on user groups and not based on users.

h) Administrator user will have the interface and option to add/manage/update/delete users. Even among the Administrator users accessibility to User management can be restricted to certain users.

i) A basic logging and reporting mechanism needs to be created. The information of the logged in user, and user related information, the layers downloaded by user will be logged in a database.

j) Data will be displayed as per user rights. User access matrix will be provided by HSVP during SRS phase.

3.4.4 GIS Based web Application and Dashboards

a) Dashboard land acquired status
- Select layout scheme
- Scheme launch date
- Land acquisition notification date
- No. of khasra in the scheme
- Show plots where acquisition is over
- Highlight plots & area under litigation
- Identify plots which are not acquired
- HSVP engineers working in the scheme
- Other points from MIS data

b) Dashboard building construction status
- Scheme name selection
- Select plot
- Plot size
- Proposed construction area for approval
- Area constructed
- Number of floors proposed/constructed

- Number of dwelling units proposed/constructed
- Parking proposed/constructed

c) Dashboards with integration with existing Plot & Property Management, FAS (Financial Accounting System).

The system should facilitate serving both spatial and non-spatial data emanating from various sources seamlessly. The system should provide a querying system that would facilitate in decision making. For example, if the repository has data related to buildings and the Property Tax being paid, then the system should be able to handle querying capabilities such as,

- Locate the buildings that belong to a particular ward/Zone
- Locate buildings where the Property Tax have been paid or not been paid
- The total property tax that has been collected or pending.
- Similarly, the System Integrator must envisage other related scenarios for the various data that would be part of the scope of this system

3.4.5 Land use changes/ Encroachment Module

The System should use the periodic High-Resolution Satellite Imagery/ High Resolution Drone Imagery provided by the Department and should be able to provide AI/ML based identification of Land use changes and encroachments in Area of Interest.

The module should include the below features:

- Identifying changes in land use of government owned lands by leveraging high resolution satellite imagery on a quarterly basis
- Raising alerts when there is a change in land use in the Area of Interest such as Government Lands.
- Validating the alerts by government officials by using mobile application
- Providing a complete audit trail of the alerts
- Geo-tagging of changes (pictures & videos) by the concerned officials using Mobile Application.
- Interactive Visualization of the land use changes on quarterly or compare current land use to historical land use through Web GIS
- Creation of Dashboard for Change monitoring and Land use info/map dissemination
- Making the data available to all stakeholders based on their roles and jurisdiction

3.4.6 Development of Machine Learning based Automatic layer extraction from Drone Data:

The system integrator must use the artificial neural networks to solve challenging problems that would part of the scope of work. The system must use of large amounts of available data to train a neural network to generalize to a particular problem, Deep Learning employs the power of neural networks.

The system Integrator must leverage on modeling techniques & algorithms that are specific to the problem to be solved.

The system integrator must use all the sets such as Training set, Validation set and Test set while training the system.

The system Integrator must ensure that the model is not over-fit or under-fit. For this purpose, the system integrator must understand how the accuracy and loss of the model varies per epoch. The validation accuracy must be monitored to gauge the number of epochs required to train a model without over-fitting it.

This system should be progressive in nature, as the system keeps getting more data the model should be able to use it automatically and enhance its accuracy.

- o Agency should automate self-training of these machine learning models: The agency must leverage on the data available from the department to automate the self-training component of the solution. This would generally include the agency to add as many sets of data that can be labelled to provide the system with the initial information required to classify. This should be followed by an automation process for the solution to get trained by itself.
- o Agency to use ML platform where models can be added modified or deleted at a later stage by the department.
- o The agency should ensure that there are pre-defined models available in the ML platform and is provided with the capability for the department to
  - • Add
  - • Modify
  - • Delete
- o This would ensure that the department is able to get desired outputs from the pre-defined or the new model that is being created.
- o Agency to provide facility where department officials can keep adding the training data for increasing the accuracy.
- o The agency should ensure that the training data of the ML platform is provided with the capability for the department to add more training sets.

This would ensure that the department can control the quality of the output being controlled via the updated training set.

a)   Green space / Vegetation Coverage Index Module

The system integrator must utilize the drone-based assessment data and create a system that should be able to perform Machine Learning based modeling techniques to automatically identify and classify the vegetation using Geospatial data.

- • Calculation of index at various levels

The system should also be able to calculate the Green space/Vegetation Coverage Index at various levels such as Zone, Estate, Layout of green cover area. This index should be a normalized index to perform further analysis and ranking.

b)   Machine Learning & Artificial Intelligence based classification of Garbage/Black spots

The System Integrator should utilize the Drone surveillance Data obtained periodically by the Department to perform Machine Learning and Artificial Intelligence based modeling techniques to identify the Garbage spots. This software should be widely used to compare the Black Spots/Garbage dump in the previous drone survey with the current drone survey and check for cleaned/removed spot.

c)   Road Conditions :
▪ Automatically identify pot holes and bad patches of road.

3.4.7   Data Management
a)   The raster/imagery data is assumed to be a rectified data in the IMG format.
b)   Access to the data shall be based on the user groups.
c)   All raster data must go into a specific directory based on the data model.

3.4.8   Layer manager and functionalities
a)   All users will have access to the layer manager and its functionalities. The users can:
  o   Style the feature layer
  o   Reorder the layer
  o   Set to view the data in specific scale ranges
  o   Render the data as tiles or as map
  o   Choose output format (if want to change the default)
  o   Show or hide datasets by setting the visibility
b)   Registered users can additionally:
  o   Add external services on the map (and hence make it available as part of the map layer).
c)   Administrators will be able to:
  o   Define, load and save the user maps (collection of active maps and make it available to the users).

3.4.9   Basic map controls and toolbar controls

The application will contain map control toolbar buttons for different map operations. All users will have access to the below mentioned tools:
  o   Zoom in
  o   Zoom out
  o   Interactive Zoom
  o   Zoom to an area
  o   Zoom to an extent
  o   Pan
Some of these tools will be available as quick-navigation tools allowing the users to click and perform the operation (like zoom by 1 level, or pan by 1 screen, etc.)

3.4.10 Measurements

DISTANCE AND AREA

The distance (segment and total) and surface area is available to all users. The users will be able to perform this using the available tools.

3.4.11 View layer information

The authorized registered users will be able to view the selected layer's information, its indexed metadata and its ISO 19115 translated metadata.

3.4.12 Download and upload of context files

The authorized registered users can upload and download OGC WMC context files.

3.4.13 View pre-defined maps

a) The administrator can configure to allow registered and non-registered users to view collection of datasets on the map viewer.
b) This functionality can be seen using a button or a drop-down selection box.

3.4.14 Browse the catalogue

The authorized registered user can drill-through the catalogue of published spatial data of HSVP Properties and others grouped by the type (imagery, raster, vector, and related business data etc).The user can add externally published datasets as well through an independent user interface (as part of the tools).Cataloguing and publishing of all available geospatial data available with HSVP which are .shp, jpg/tif, geo tagged photographs and others. All imagery, vector, and related business data (pdf, .doc, mov, jpeg, etc).

3.4.15 Results Window

The results window will be shown below the map viewer in the application. It will have the following (as per the operations):
   o Search results
   o Browse results
   o Functionality on layers or results like
   o Add to map viewer
   o Download
   o View metadata
   o View in other application

3.4.16 Filter and download the feature data

The registered users will be able to filter through the selected feature service using spatial filters and attributes. Optionally, the user can download the original data or the filtered data to GML, KML or SHP file format.

3.4.17 Scale-based restriction to view spatial data

a) The administrator will be able to view all data at all scale levels.
b) All other users will be allowed to view up to a maximum scale, as defined in the configuration file, which will be mapped with user management information.

3.4.18 Overview Window

All users will be able to view the overview of the map viewer in a simple and separate small window. The data used in the overview window can be configured.

3.4.19 Base-maps

The administrators should have the facility to configure Bhuvan, OpenStreet Map, Bing Maps and OGC WMS available to the end-users. The end-users can then use this data as base-maps in the application.

3.4.20 Management – Single point access and Data Administration

a) The administrators will be able to manage the configurations, data management, scheduling and cataloguing processes, applying security, etc.
b) RDBMS based customization and queries shall be discussed during the SRS phase with the successful bidder.

3.4.21 Searching and Query features facility based on

- State
- District
- Zone
- Sector
- HSVP Property
- Village Boundary

- Create buffers with defined styling and exporting the results and facility to add it on the client viewer
- Online creation of Building to calculate the area and to get a report of surrounding features like basically villages which are impacted, LU/LC.
- Based on the user group of the logged in user the required query options shall be provided. HSVP will provide information about spatial query.
- User will have option to perform searches on just imagery or just vectors or both.
- Query interface shall be based on State, District, Taluk, Villages, HSVP Properties and on various fields of spatial data.
- Visualization and searching of Land used and Land cover classified data, .shp, .tab, jpg/tif, geotagged photographs and others
- Integration of online services and providing the user to choose multiple potation for base map as Bhuvan, Google, Bing and Open Street Maps
- Note: - Permission to use Bhuvan services will be taken by HSVP.
- User will have option to perform searches on just imagery or just vectors or both.

o While performing searches on raster, only those raster for which the current user has access must be displayed. The search results will be displayed in a separate interface

3.4.22 Other GIS Features

- Separate layouts for location maps
- Display of Land details on GIS
- Mapping of plots/Properties
- Availability of property information on click of mouse
- Display of allotment status of plots/properties
- Searching facility for different parameters
- Finding of particular property within buffer zone
- Query builder for MIS reports on the basis of Property type, Property area etc.
- On click of features information retrieving facility
- Land details are displayed on GIS
- Color coding schemes can be used for differentiating the attributes.
- Attractive themes for all layers in accordance with categories
- Tool tip information for layers and attributes information
- Zoom, Pan functionality
- Distance Calculation functionality
- Layer on/Off Features
- Change of Base Map Features etc.
- Change detection of HSVP properties using temporal satellite images

3.4.23 Customized Functional Requirement with GUI.

a) Customized Geospatial Portal Instance for HSVP/ULB Users:

o The COTS or Open source should provide the ability to have different tabs, CSS Themes etc. specific for specific departments the same shall be done for departments.

o Crowd sourcing interface shall be provided with which citizens shall be able to upload geo tagged photographs to the server which shall further displays on the portal after approval.

b) Customized Consumer Portal Instance for citizens:

o HSVP Consumer Portal can be accessed directly without user access credentials.

o The consumer portal map shall be also accessible over mobile web browser with smooth handling.

3.5 Mobile Application

- Mobile App should be able to capture geo-tagged photos of the Government and Semi-Government building which shall be used by the line department and HSVP.
- It should also be able to work/capture data in both online and offline mode.
- Mobile App should be easy to use and configure the data, so that if required the App can add another layer(table) field data collection.
- Role based authentication and user management for Viewer, Editors and Administrators. There should be administrator console through which the permission to view, edit, manage and delete of features can be provided/revoked.
- The Mobile App should work on all iOS and Android phones and should be available on their stores respectively.

- Approximately 15 spatial layers (along with its attribute) would be updated using the Mobile application.
- Upload and display different file formats, such as .pdf, .doc, or .xls, using associated app on a Smartphone.
- Mobile based to workflow to enable resolution of changes detected

NOTE: - Within 9 months after the implementation of project, all updation will be treated as scope of work with no extra payment. All the development work will be done at HSVP (HQ) Panchkula and the Final product developed will be the sole property of HSVP for all type of use in future.

4 APPROACH AND METHODOLOGY

a. The Bidder will adopt methodology which will be capable to converge and extract datasets from the given data ware house. Real time Decision scan be taken by implementing GIS engine which considers spatial dimension. The said system should provide to regulate control and use in the vicinity of these ctor providing vacant areas around the Areas. Decision makers can recommend land use controls around the Areas for controlling and minimizing adverse environmental impacts, recommending necessary effluent treatment and waste disposal facilities and other needed abatement infrastructures needed to be commonly used by all households, Monitoring of the various planning, allotment details of the aspect etc.

b. Spatial database creation will be a vital step where interactive decisions are required like finding the associatively of property, buffer analysis and hence propose site suitability based on custom criteria. Spatial entities will be digitized by collecting DGPS coordinates and for some locations using the Ground control points are used for creating base maps. Allotment data will be linked with the spatial database to make a dynamic seamless information matrix. Spatial dataset like Location of Property, Layout of Zones/Wards, Property wise-wise details like Vacant, Allotted etc., Color coding schema will be incorporated to distinguish various property types.

c. **GIS will be implemented in seven steps as given below:**
   o DGPS Coordinate Collections from ground control point (GCP) for Image Geo-referencing
   o Revenue Maps, Sajra Plans, Layout and Demarcation Plan Digitization
   o Geo Referencing of Layout& Demarcation Plan
   o GIS Mapping
   o Data Integration and development
   o Testing, User Acceptance & Training
   o Documentation

d. **DGPS Coordinate Collections from ground control point (GCP) Methodology**

   Based on the Layout plan provided by HSVP team, Bidder will mobilize the team into the field to take ground control point (GCP) for Image Geo-referencing, in static mode based and observation time should be based on the below table. Always start with known point (Better to have SoI Ground control point as Known Control point) and close the network

with the Known control point (Better to have SoI Ground control point as Known Control point).

Known Base to observation point[km]	Observation time[min]
1	20-35
5	25-45
10	35-60
20	55-90

Bidder will use industry standard DGPS sets which are capable of registering high resolution satellite images. The level of vertical and horizontal accuracy should be less than 1 Mtr. As per the best practice for accuracy, coordinates will be captured only when minimum four Satellites were available. Bidder will capture coordinates to capture Layout Plan boundaries apart from infrastructure depending upon the requirement at various Layout Plans. Necessary guidelines and method for use of DGPS set will be made available to each team before deployment to field for proper capturing of DGPS coordinates. The Bidder shall collect sufficient number of Ground Control Points (GCPs) through Differential Global Positioning System (DGPS) survey. The Bidder should select the Ground Control Points (GCPs) at well-defined sharp points both on the ground and on imagery. The Ground Control Points (GCPs) should be located at nearly desired locations and should be clearly visible on the imagery. Sketch, coordinate both in latitude, longitude and Easting, Northing of GCP's including GPS observation and adjustment data should be provided to HSVP for necessary approval.

e. **Layout and Demarcation Plan Digitization & Cleaning**

   After collection of DGPS coordinates, updated Layout and Demarcation plans shall be digitized.

f. **Geo Referencing & Digitization of Maps**

   Geo referencing will be done by back end team on the digitized drawings based on the captured DGPS coordinates. Shape file will be generated for GIS display with the help of DGPS coordinates with due diligence and cleaning of drawings.

g. **GIS Mapping**

   GIS mapping will be done for the Sectors and infrastructure with layer on/off features will be provided on GIS.

h. **GIS Application Development and hosting**

   Bidder shall undertake the data integration and development of the GIS system as per scope of work.

i. **Testing and Acceptance:**

   Upon successful completion of the deployment the successful bidder shall demonstrate the functionality of the core applications as per the mutually agreed acceptance test procedure as per timelines and deliverables mentioned in the RFP. Any gaps & vulnerabilities notices during testing shall immediately be rectified before handing over to HSVP.

j. **Trainings:**

   Bidder will organize training of 7Days to the core Group of HSVP HQ at Panchkula, Haryana.

k. **Go-Live:**

   HSVP will declare Go-Live of the site after above UAT & Data Integration.

5   TEAM COMPOSITION

The bidder shall deploy sufficient staff of skilled professionals and supporting staff for undertaking the project. Resources will be mix of Onsite & Offsite and core Project Management team will work with System department of HSVP & Users' community for day to day coordination and implementation of System.

5.1   PROPOSED TEAM

S.No	Position (Full time)	Count
1	Operations Head (Overall coordinator for O&M Phase)	1
2	Project Manager	1
3	Project Team Coordinator (1 Data Development and 1 Software Development)	2
4	Urban Planner	3
5	Remote Sensing Specialist	1
6	GIS Engineers	60
7	Database Programmer / MIS Specialist	2
8	Data Quality QA/QC	2
9	Surveying Expert for GCP Collection	10
10	Data Entry Operator	10
11	Patwari/Tehsildar (are exempted from the list of permanent professional resources.)	2
12	GIS Software Engineers	3
13	Software Tester	1

5.2 KEY QUALIFICATION

EXPERTISE AND INPUTS

An indication of the expertise required (full time during the project Implementation) for undertaking this task is given in the table below:

SN	Key Experts & Input	Qualifications & Experience	
1.	Operations Head (Overall coordinator for O&M Phase) **(1 for overall project)**	▪ Post graduate or equivalent in relevant field. ▪ Good knowledge of project management in GIS data management ▪ Fluent in Hindi and English good communication skills ▪ GIS knowledge is desirable	▪ Managed at least three similar projects. ▪ At least 10 years' experience.
2.	Project Manager **(1 for overall project)**	▪ Post graduate or equivalent in relevant field. ▪ Good knowledge of Remote Sensing /GIS with GIS data creation / GIS data collection. ▪ Fluent in Hindi and English good communication skills ▪ GIS & Remote Sensing knowledge is desirable	▪ Managed at least three projects at State/ Central Government Organization / PSU /Development Authority/State Institute for Town Planning Urban Local Body/ Municipal Corporation in India. ▪ At least 8 years' experience.
4.	Urban Planner **(3 for overall project)**	▪ B.Tech planning or Post Graduation in Urban / Region Planning	▪ At least 2 years of experience
5	Remote Sensing Specialist **(1 for overall project)**	▪ Post graduate or PG Diploma in the related fields. ▪ Knowledge of GIS software, GPS and its technology. ▪ Good communication skills	▪ Experience of working in two similar projects ▪ At least 5 years of experience in relevant field. ▪ Experience in Image processing of high resolution satellite data and GIS data analysis preference given in urban GIS related activity. ▪ Should be familiar with ULB/ government procedures for procurement of satellite data.

SN	Key Experts & Input	Qualifications & Experience	
6.	GIS Engineers **(60 for overall project)**	▪ Bachelor's degree in computer science or related fields.	▪ At least 2 years working on GIS and CADD software ▪ Experience in digitization, data conversion and data integration.
7	Database Programmer / MIS Specialist **(2 for overall project)**	▪ Degree in relevant area ▪ Sound understanding of Data management and MIS systems ▪ Fluent in Hindi & English	▪ Experience of working in three similar projects ▪ At least 5 years' experience in related with any esteemed Organization. ▪ MIS related project completed in government/Urban sector ▪ Experience with RDBMS such as Oracle and interfacing with spatial databases in GIS software
8	Data Quality QA/QC **(Minimum 2 for overall project or The vendor should give the count of professional to be deployed)**	▪ Degree in relevant area ▪ Sound understanding of Data Quality Assessment and Quality Control ▪ Fluent in Hindi & English	▪ Experience of working in two similar projects ▪ At least 5 years' experience in related any esteemed Organization. ▪ QA/QC project completed in government/Urban sector ▪ Experience with Data Quality Assessment and Quality Control process
9	Surveying Expert for GCPs Collection (**10 for overall project**)	▪ Graduate in the related fields. ▪ Knowledge of DGPS /GPS operating process for GCPs collection and its technology ▪ Good communication skills	▪ Experience of working in two similar projects ▪ At least 2 years' experience in related any esteemed Organization. ▪ Previous experience of carrying out DGPS survey for GCP collection
10	Data Entry Operator (**10 for overall project**)	▪ Graduate in any field area ▪ He/she should have well versed with MS-Office ▪ Fluent in Hindi & English ▪ Knowledge of working in GIS data entry in ULB / City	▪ Experience of working in data entry projects

SN	Key Experts & Input	Qualifications & Experience	
11	Retired Patwari/Tehsildar **(2 for overall project)**	▪ Graduate in relevant area ▪ Fluent in Hindi & English ▪ Should have experience with urban development authority/ revenue department for land acquisition and Property acquisition ▪ Sound understanding of contact survey requirements	▪ At least 10 years' experience in government departments of Haryana. ▪ Previous experience of carrying out Ground visit surveys
12	GIS Software Engineers (3 Nos. for overall project required for application maintenance and modification)	▪ Preferably graduates in relevant field (Computer Science, Geo informatics etc.) ▪ Sound understanding of Application Development Customisation / Development of the GIS Module ▪ Sound understanding of Integration of other modules with GIS modules ▪ Fluent in Hindi & English	▪ Experience of working in two similar projects
13	Software Tester (1 Nos for overall project required for application testing and bug report)	▪ Preferably graduates in relevant area (like Computer Science) ▪ Sound understanding of Software Testing (Unit, GUI, debugging) ▪ Fluent in Hindi & English	▪ Experience of working in two similar projects

6 SOFTWARE SPECIFICATION

6.1 INDICATIVE WEB GIS SERVER SOFTWARE SPECIFICATION

Sl. No	Specification	COMPLIANCE with Proof via (Brochure / web link / Screenshot)
1.	User Interface to be simple and easy to understand and use.	
2.	Software to provide good graphical interface for the user, to operate on the system, performing the required task such as viewing the details of the HSVP Property, and to allow user to view quick reports like Vacant Property, Allotted Property, Under Litigation, Under Encroachment etc., for selected Zones/Sectors.	
3.	Software to provide a single module capable of performing Multi-layer spatial query on top of HSVP datasets. A user should be able to save a query in his/her own session based on the credentials on the web client itself.	
4.	The user would be able to pass the query output directly into a dashboard scenario, wherein the user must be able to design a dashboard as per the user's requirements using the query output. The dashboard once created should be able to be saved as a local pdf file.	
5.	The product should consume data directly from the Oracle Spatial, Sql Server Spatial and Post Gre SQL with Post GIS without any bridge or middleware directly from native tables.	
6.	Error Handling: GIS system shall handle expected and non-expected errors in ways that prevent loss in information and long downtime period.	
7.	The software should Deliver data to OGC-compliant web applications. The software should facilitate interoperable web service interfaces for data, including OGC/ISO WMS, WMTS, WCS, WFS, and WFS-T with GML, KML, Geo RSS, and SLD support	
8.	The software should do the following tasks automatically: ➢ Metadata harvesting and cataloguing from raster datasets ➢ Pyramid management (Server Side) for Raster's. ➢ Footprint management. ➢ Thumbnail management (Footprint and thumbnail of Geo-tagged dataset as bounding box and preview respectively.) ➢ Geospatial Raster Data Crawlers ➢ Job Management and scheduling system ➢ ISO Metadata Editor and harvester	
9.	The software should have a facility to define on-the-fly styling rules for raster data in Web Mapping Service (WMS) such as contrast enhancement, color mapping, hill shading Advanced synchronous styling options using	

	Image Chain functionality etc.	
10.	The product should have data download functionality for image \ Raster extraction and delivery. Data served via WCS can be used to accomplish this task. This system allows the administrator to configure download options through HTTP or FTP. Metadata information can be clubbed together with the data and end-user can download the contents in a zipped file.	
11.	The software should allow the user to Download original datasets including metadata	
12.	While downloading raster datasets, user must be able to specify the interoperability technique, Data format, Spatial Resolution and Bands.	
13.	There must be a support for multiple Coverage data and output formats at least as compresses Geo TIFF, JPEG2000, DTED, ECW, etc.	
14.	The software should Catalog, manage, and deliver large volumes of distributed spatial and non-spatial data; including raster, vector, point cloud, , and digital object or business data (pdf, mov, doc, jpeg, and so forth)	
15.	The solution should catalog geospatial information by harvesting metadata and persist it in a central, searchable catalog. Simple harvesting from SAN (Storage Area Network) with thousands of imagery with footprints & thumbnails.	
16.	Remote management of data: an admin must be able to manage all raster and vector data from anywhere in the network without having the dependency of any other COTS package or desktop software.	
17.	Hierarchical data management: The server should support automatic handling of Hierarchical data management, wherein the data and metadata must be clubbed accordingly.	
18.	The software should have Schedule automatic data crawlers and metadata (Metadata should have Latitude, Longitude, Date, Time stamp, Location etc.) harvesters for continuous spatial and non-spatial data discovery at distributed file data stores	
19.	The software should have feature sets up listeners on directories to automatically crawl incoming raster, vector and multimedia files. It should automatically crawls the incoming data.	
20.	The cataloguing must be based on OGC standard CS-W and an ebRIM profile. (OGC- Open Geospatial Consortium CSW- Catalogue Service for Web)	
21.	The product should support Batch Metadata Editing over an ISO 19115 Metadata Schema and also automatically provide data for optimized end-user consumption, including pyramid and thumbnail generation, and	

	Should have full support metadata translation to ISO 19115	
22.	The product should have a "full" ISO 19115/19119/19139 support for resource and service metadata management and encoding. So in the end WYSIWYG. An administrator can edit and update the metadata information.	
23.	The software Should have Automatically harvest metadata from services and layer descriptions	
24.	The software should Aggregate disparate data stores into homogenous layers with out-of- the-box hierarchical data models for indexing purpose	
25.	The software should automatically harvest imagery/sensor metadata and translate into ISO 19115/19139 (support for Landsat 5, Landsat 7, IKONOS, QuickBird, SPOT, CEOS, RADARSAT, ERS, IRS, EROS, ODL, and Russian satellites metadata)	
26.	Software should provide visualization of raster, vector, and point cloud datasets	
27.	The software should have built-in portrayal engine which provides on-the-fly contextual (Web portal should have functionality of adding online OGC web services on the fly by the user.)	
28.	Rendering through the OGC Web Map Service (WMS) interface, with Styled Layer Descriptor (SLD) support"	
29.	The software should support the creation of Web Map Context (WMC) files also provides scale-dependent styling.	
30.	The Software should provide Leverage extremely fine-grained security model to assign access, scale and spatial security permissions to every aggregate/dataset in the system per user/role. Should support full SSL	
31.	Should support LDAP and Single Sign-On using Integrated Windows Authentication.	
32.	Software should have Centralized and smart security configuration	
33.	Software should have logging information can be recorded for security or auditing purposes.	
34.	Should have "On-The-Fly Re-projection" and "On-The-Fly Mosaic" functionalities.	
35.	Performance Requirements: System shall facilitate "net neutrality" to accommodate high number of Properties and Users, without any performance degradation so as to facilitate service delivery in time.	
36.	The Web GIS Web browser application client must be able to interactively add following data services on the fly on the client side by defining and	

	maintaining data sources:
	
	    a. Bing Maps
	    b. Google Maps
	    c. Open Street Map
	    d. Bhuvan OGC
	    e. GeoRSS
	    f. OGC CSW
	    g. OGC WMS
	    h. OGC WFS
	    i. WFS-G
	    j. OGC WCTS
	    k. OGC WMTS	

37.	The Web client must support scale-based printing interface wherein the user must be able to specify the following parameters:
	    a. Page size (A0, A3,A4, Legal)
	    b. Orientation
	    c. Scale
	    d. DPI Settings	

38.	Performance Requirements: The bidder needs to provide perpetual GIS server licenses, applicable for a minimum of 16 server cores.	

6.2 INDICATIVE DESKTOP GIS SOFTWARE SPECIFICATION

Sl No	Specifications	COMPLIANCE with Proof via (Brochure / weblink / Screenshot)
1.	Should have direct RDBMS Read Write Support for Access, SQL Server, Post GRES, SQL, Oracle etc. and export to Shape File (.shp), dwg, dxf, KML, KMZ etc.	
2.	Should support OGC data services like WCS, WMS, WFS etc. Software should integrate with web data source in OGC format for displaying Geospatial data in the native viewer.	
3.	Should have support to keep different vector geometries like Line, Point and polygon as a single layer (feature class) and should have Multilayer Facilities. Should have editing facilities.	
4.	Create Polygons from Lines or Create Lines from Polygons, interconversion facility among different feature types, attribute to text and text to attribute.	
5.	Should have tools to read different raster data format, img, tiff, geotiff, JPEG 2000 etc	
6.	Capable of opening multiple layers with different projections and datum in a single viewing window (On the fly projection) without giving error notifications.	
7.	Bulk attribute Update using Expression, Support Queued Edits, Maintain relationships or coincident geometry digitization and editing	

Sl No	Specifications	COMPLIANCE with Proof via (Brochure / weblink / Screenshot)
8.	Automatic Validate Geometry attributes and Fix Geometry, Validate Connectivity using All advanced editing capabilities.	
9.	The solution should have option for Attribute Query, Spatial Query, Join, union, intersection, Buffer Zone (Merged and Unmerged), Analytical Merge, Analyzing Geometry, Native Query, Functional Attribute, Update the analysis dynamically as data changes for faster QA/QC of Vector data.	
10.	Software should offer geospatial analysis option, such as corridor planning, shortest path between two or more points based on distance cost, , or other attributes, best site selection [Weighted overlay analysis], processing, viewshed, line- of-sight depictions, and watershed analysis.	
11.	Proposed software should be able to generate elevation artifacts from raster-based elevation sources, Aspect, Slope, Grade, Isolines or Contour, Contour labelling, Curvature, Volume, Viewshed, Isoline, Update Geometry Z Value	
12.	Proposed software should have following Visualization option Overlay, Colour composite, Blending, Shaded Relief.	
13.	Software should be able to generate attribute base animated symbols	
14.	Software should be capable of joins and relationship of table.	
15.	Software should integrate with web-data source in OGC format and other industry standard RDBMS sources like Oracle, PostGres and SQL Server directly without using any other underlying software for displaying geospatial data in the native viewer	
16.	The solution should have option for more than one layout frame, grid display, grid snap, batch plotting	
17.	The solution should have option to create map layout using more than one map window in both static and dynamic mode	
18.	Should have hydrological features like, fill depressions, Downhill path, Downhill Accumulation, Flow Concentration, Sub-basin delienation, etc.	
19.	Create DEM from line and point data with interpolation method like IDW, KRIGGING & TIN, using Z factor and resolutions.	
20.	The solution should have surface analysis tools like, create isoline, isoregion, slope, aspects, profile graph, hill shade and view shade etc.	
21.	Should have a provision for Rule Based Labelling (e.g. Placement Rules).	
22.	Should have support for Cadastral features like: Coordinate Geometry (COGO) Parcel Validation. Parcel Numbering, split, join, label. Relationships and rules.	
23.	Should support Network Management Tools for Network Tracing and analysis	

Sl No	Specifications	COMPLIANCE with Proof via (Brochure / weblink / Screenshot)
24.	Advance feature editing tools (e.g. Partial delete, simplify geometry, Trim to intersection, Extend to intersection etc.)	

6.3 INDICATIVE DESKTOP REMOTE SENSING SOFTWARE SPECIFICATION

Sl No	Specifications	COMPLIANCE with Proof via (Brochure / weblink / Screenshot)
1.	Should have geographical connectivity of files across multiple views opened in a single UI.	
2.	Should support for raster formats like XML, ECW, MrSID, img, tiff, jpeg, shp and other image and GIS data formats should be present; GeoTIFF, JPEG2000, , TIFF, Sensor Support: Cartosat, IRS (fast & super structure)	
3.	ResourceSat-1 (Fast & Super Structured), ResourceSat-2 (HDF5), EO-1 ALI	
4.	(HDF4), Landsat 8 (OLI & TIRS), Landsat, Sentinel-2, QuickBird, Worldview 1 – 2 & 3, GeoEye, IKONOS, ALOS AVNIR, ALOS PRISM, ASTER, SPOT(5,6,7)PB, RESOURCESAT RPC, ALOS RPC, WORLD VIEW RPC, RAPIDEYE.	
5.	Smooth visualization of images more than 10GB in size	
6.	Compress large images without visual loss in ECW and JPEG2000	
7.	Should have integrated 2D, 3D, and profile viewing of point clouds; extraction of DTM and DSM from point cloud data; RGB-encode, edit, filter, merge, and split point cloud data.	
8.	Should support virtual mosaic of imagery; Image stitching utility with seam line and colour correction facility; colour correction facility should have more than one algorithm like image dodging, illumination equalization, colour balancing etc. and should offer automatic and manual mode of correction. Should support direct read of Sentinel-2 data in the software. The software should support direct read of WorldView-4 imagery from Digital Globe, including the ability to ortho rectify the imagery.	
9.	Fast Polynomial rectification of images; single frame Ortho-rectification of images based on orbital push broom and RPC model.	
10.	Should have Batch processing facility; Parallel batch processing facility;	
11.	Should support different customized band ratio; software should have the facility to modify all indices based on requirement. The software must have separate hyperspectral Image processing tools like anomaly detection, target detection, material mapping etc. along with spectral comparison facility.	
12.	Should support creation of rule-based classification tree and its execution and material of interest-based subpixel classification. The software must have facility for Supervised and unsupervised classification. Classification algorithms based on machine learning should be supported in the software. The software should support Live-link with Google Earth Pro for cross checking the ground reality.	

Sl No	Specifications	COMPLIANCE with Proof via (Brochure / weblink / Screenshot)
13.	Should support graphical spatial modeling using different raster and vector operator in the same graphical user interface. Should have nearest neighbor based Pan-Sharpen techniques available in spatial model. The software should support atmospheric correction. Spatial Models can be used in both GIS and Image processing software.	
14.	Should have additional option for false-color display band combination for Landsat 8 and WorldView-3 imagery, etc.	
15.	Should have feature based and grid based change detection technique from high resolution data. Should be capable of opening an image based on algorithms and dynamic changes must be seen while changing the histogram parameters.	
16.	Should be able to detect changes based on probability, zone, addition, subtraction and combination of both.	
17.	Should have automatic/semiautomatic georeferencing and edge matching tool for satellite images.	
18.	Should have radiometry and algorithm-based change detection tool with automatic raster to vector conversion facility.	
19.	Should be able to view DTM as 3D surface; Should have drape facility of raster, vector and annotation on 3D surface; should have facility of fly through over 3D.	
20.	Should be capable of ortho-rectification of RADAR images and extracting DTM from stereo RADAR imagery.	
21.	Should be capable of ortho-rectification of Stereo images and extracting DTM from stereo imagery.	
22.	Should be capable of managing images, files, and feature files for photogrammetry projects.	
23.	Should be capable of handling RPC information from commercially available satellites like WorldView, QuickBird, CartoSat, FormaSat, Planet labs etc.	
24.	Should be capable of Visual display of project status	
25.	Should supports numerous horizontal and vertical datums,	
26.	Should work with both stereo and monoscopic hardware	
27.	Should have automatic tie point generation for photogrammetry projects.	
28.	Should have simultaneous processing of multiple orthos in one go for entire project.	
29.	Should have distributed processing across network using distributed computing.	

6.4 INDICATIVE MOBILE SOFTWARE APPLICATION SPECIFICATIONS:-

Sl. No	Specification	COMPLIANCE with Proof via (Brochure / weblink / Screenshot)
1	Should Support Connected mode to GIS data	
2	Should Support Disconnected or offline mode for both raster and vector data	

3	Should Support Configure the creation of OGC GeoPackage on the fly	
4	Should Support Synchronize cached operations with the backend via WFS-T	
5	Should Support Connections via WMS, WMTS, and WFS-T	
6	Should Support Base map layer control	
7	Should Support Overlay layer control	
8	Should Support Vector layer control and styling	
9	Should Support Review and edit geometry and attributes of features	
10	Should Support Ability to place non-feature line and area vector for measuring in metric and imperial units	
11	Should Support Definable pick lists or drop-down lists for selecting attribute values	
12	Should Support Create feature geometry using GPS tracking	
13	Should Support Search for features based on attribute values	
14	Should Support Use device camera for uploading photos; multiple photos can be stored per feature	
15	Should Support Upload existing photos from device's gallery	
16	Should Support Upload and display different file formats, such as .pdf, .doc, or .xls, using associated app on a smartphone	
17	Should Support Play, capture, and upload videos	
18	Should Support Ability to display label for static or a property/attribute for features	
19	Should Support Thumbnail views of stored photos	
20	Should Support Location indicator based on device GPS	
21	Should Support Tracking indicator based on device GPS	
22	Should Support User configurable filtering and permissions to GIS data and functionality	
23	Should Support Offline authentication and authorization	
24	Should Support Configure photo quality in camera control	
25	Should Support 3D Viewing	
26	Should Support for diagnostic logging	

6.5 TECHNICAL DEMONSTRATION

Following serial number need to be demonstrated during Technical Evaluation.

a) Geo-referencing of Layout plan and Satellite imagery via GIS Desktop software with overlay option of Bing, Google, Open street etc.

b) Change detection using temporal satellite imagery on the Remote Sensing Software with its report generations.

c) Cataloguing and searching mechanism via web client on spatial and non-spatial data; including raster, vector, point cloud, , and digital object or business data (pdf, mov, doc, jpeg, and so forth)

d) Web client/browser application for downloading of the user drawn Area of Interest (AOI polygon on web browser).

7 RESPONSIBILITY MATRIX

Sr. No.	Descriptions	Responsibility
1	Procurement of satellite Imagery	HSVP
2	DGPS Coordinates Collection	Bidder
3	Procurement or Collection of Village Maps (Digitized/ Scanned/Hardcopy)	Bidder & HSVP
4	Drone Surveys as required	Bidder & HSVP
5	GIS COTS software	HSVP
6	Layout and Demarcation Plan (Soft and Hardcopy)	Bidder& HSVP
7	DGPS Coordinates Collection	Bidder
8	Satellite image processing for map layer extraction	Bidder
9	Scanning , Maps Digitization &Cleaning	Bidder
10	Geo Referencing of Maps	Bidder
11	GIS Data Preparation	Bidder
12	GIS System Implementation	Bidder
13	Setting up of a GIS lab at HSVP HQs,	Bidder& HSVP
14	UAT, Training & Go live	Bidder& HSVP

7.1 RESPONSIBILITIES

7.2 HSVP

a) Bidder will support HSVP for quick procurement of Satellite images by identifying appropriate images with less than 5% or 0 % (preferably) cloud cover
b) HSVP will assist by issuing a letter to concerned Department/Authorities like HARSAC, GMDA, DT&CP to provide relevant existing datasets.
c) HSVP will assist in collection, collation, Scanning &Verification of Urban Estate.
d) HSVP will provide the existing available Soft as well as hardcopy of required Layout and Demarcation plan.
e) HSVP will assign Zone/Ward Wise dedicated resource at the time of Coordinate collection &Geo-referencing.
f) HSVP will provide the infrastructure (GIS software and Hardware) for setting up GIS Lab and operations as per project requirement at HSVP HQ.
g) HSVP will provide the link of data related to all types of Property/plots.
h) HSVP will provide the list of resources for Training.

7.3 BIDDER

a) Bidder will help HSVP to procure the multispectral imagery image of very high-resolution satellite data of spatial resolution (native resolution of 40 cm or better) from NRSC Hyderabad

b) Bidder will do Collection, collation, Scanning & Verification of Urban Estate wise, of all the Sajra Plans, latest approved layouts and demarcation plans of various sectors in an Urban Estate.

c) Bidder will collect and collate all available soft copies of digitized sajra maps of the concerned departments

d) Bidder will do Collection & Verification of Maps, Collection of Ground Control Points (GCP)for Image Geo-referencing

e) Bidder will do Digitization, Cleaning, Geo-referencing and Generation of Shape Files as per Scope of Work and submit the geo-referenced Drawing

f) Bidder will have the responsibility to map zone wise/Sector wise properties of HSVP.

g) Development of GIS System.

h) The Bidder shall organize UAT and training of 7 days to the core Group of HSVP at HSVP HQs.

i) The successful bidder will ensure the IT Security Audit of each module of the application from a third party Cert-In empanelled vendor before Go-live.

8   TIMELINES AND DELIVERABLES

HSVP will consider start of project timeline from handing over of satellite images to selected bidder.

The bidder will complete all responsibilities as per the schedule given below:

S. No.	Deliverables	Completion timeline(in weeks)
A. Project Preparation and Business Blueprint Phase		
1.	Detailed Project Plan	ED+1Week
2.	Resource Deployment Plan	
3.	Roles and Responsibilities of HSVP and Bidder	
4.	Submission of System Requirement Specification(SRS)	ED+ 3 Weeks
5.	Submission of Solution Design Report including User and System Interfaces	
6.	Submission of Training Strategy and Plan	
7.	Software Requirement Specifications(SRS), Solution Design Document(SDD)and Functional requirement Specifications(FRS)–Sign Off	ED+ 4 Weeks
8.	Plan Review and Signoff	
B. GIS Portal Development		
1.	• DGPS Coordinate Collection from Ground Control Points (GCPs) and Ground Truthing for image Geo-referencing. • Collection, Verification, Digitization, Cleaning and Geo referencing of Maps/Drawings/Layout Plans/Demarcation Plans etc. • Creation & Generation of Shape files. • Creation of Geo-referenced Maps.	ED+ 15 Weeks
2.	GIS Implementation	ED+ 22 Weeks
3.	Infrastructure Layers Mapping	
4.	Preparation of GIS based Land Bank and Property DataBase	

	C. System Integration-Application Design and Development based on COTS Product	
1.	Software Applications Design and Development, UAT, Commissioning after having Integration with existing IT System of HSVP.	ED+25 Weeks
	D. System Acceptance and Operationalisation	
1	• Go-Live	ED+ 28 Weeks
2	• Competency Development/ Capacity Building/Training of HSVP Personnel & HSVP Stakeholders	ED+ 30 Weeks
3	• Application Software System Documentation &User Operations Manual	ED+ 32 Weeks
4	• Go-Live Acceptance	ED+ 35 Weeks
	E .O&M Phase (Post Go-Live) – 3 Years	
1.	Operations and Maintenance (after Go-live) including submission of various reports	Submission of MIS Reports & Quarterly Progress Report

*ED – Effective Date i.e. the date of signing of contract by both parties.

9   PAYMENT TERMS

S. No	Milestone Linked Payment	Percent of Contract Value (%)
1	Signing of Consultancy agreement between HSVP and Bidder – Development Fees as Mobilization Advance	10%
2	SRS, SDD and FRS Sign off and Plan Review Sign off	10%
3	Collection, collation, **Scanning & Verification** of Urban Estate wise, soft copies of all the latest approved demarcation plans of various sectors in an Urban Estate, along with soft copies of approved demarcation plans of all the Shopping Centers / convenient Shopping Centers or Commercial belts etc. from the concerned District Town Planners - **Static Data**	20%
4	Collection and Collation, available soft copies of sajra plans of the concerned Revenue Estates (award wise)	
5	**Approval of Inception Report (including pilot) for one town**	
6	Submission of GIS base map layers of total area and base map layers of planning area / urban agglomeration area(completion of 25% of total area)	
7	Submission of GIS base map layers of total area and base map layers of planning area / urban agglomeration area(completion of 25% of total area)	
8	Submission of GIS base map layers of total area and base map layers of planning area / urban agglomeration area(completion of 25% of total Wards)	
9	Submission of GIS base map layers of total area and base map layers of planning area / urban agglomeration area(completion of 25% of total Wards)	
10	Submission and Approval of Final data to HSVP	
11	**Development of Geo-portal, Web & Mobile Application-** Web Application testing and commissioning having integration with existing IT system in HSVP	20%
12.	Final Signoff	40%

9.1   PAYMENT TERMS

o   The payment to the selected bidder shall be processed on quarterly basis at the end of each quarter on submission of report and fulfilment of other contractual obligations upon submission of the invoice along with respective deliverable and all other supporting documents and deliverable reports for the respective Quarter.

o   The payment on account of Annual Maintenance Contract will start after six months of handholding and will be released on quarterly basis after the submission of bills.

9.2 PENALTY FOR DELAY IN PROJECT EXECUTION

1. For any delay in installation and commissioning of Hardware for the project, HSVP will charge penalty @ 0.5% of the corresponding milestone value for first week and for 1.0% for all the subsequent weeks or part thereof, subject to a maximum of 5% of the component cost 2. For any delay in implementation of the GIS Application, Base Map Creation/Updation, HSVP will charge penalty of @ 0.5% of the corresponding milestone value for first week and for 1.0% for all the subsequent weeks or part thereof, subject to a maximum of 5% of the component cost.

9.3 PENALTY CALCULATION

1. The Penalty shall be calculated on a quarterly basis.
2. All penalties defined for O&M phase will be exclusive to each other and total penalty for any of the quarter will not exceed more than 15% of quarterly payment. For Implementation phase penalties, the total penalties should not exceed 15% of the total Capex cost payable to SI.
3. Three consecutive quarterly deductions totaling to more than 25 % of the applicable payment for the corresponding quarter will be deemed to be a sufficient condition for termination.
4. In the event of any of the above (two points) happening, HSVP may at its discretion will have right to terminate the contract as per the terms and Conditions of this RFP and Draft contract Agreement.
5. Planned Down-time (during non-working hours) is not considered for penalty calculation. Bidder/ SI will have to take at least 2 days prior permission from HSVP for the planned down-time. Planned Down-time won't be allowed for more than two times in a month.
6. Training and Capacity Building.
7. System Integrator is responsible for providing training to HSVP officials and provides required support for hand holding and Capacity building process.
8. For any delay in completion of proposed training, HSVP will charge penalty of @ 0.5% of the corresponding milestone value for first week and for 1.0% for all the subsequent weeks or part thereof, subject to a maximum of 5% of the training cost.
9. Below mentioned SLA will be monitored for the training provided to each batch of department users through feedback survey forms to be provided to each attendee within the program.
10. Desired parameter: At least 85% of the trainees within the training program should give a rating of satisfactory or above.

9.4 SLA FOR MAP CREATION

Sr. No	Parameter	Condition	Penalty
1.	DGPS ground control point accuracy	Should be <0.5 m.	Rs. 1000 for every inaccurate point and a resurvey.
2.	Map Digitization	100 % features to be digitized as per the approved data model.	Rs.1000 for every missed feature in the output map.

9.5 SLA FOR SOFTWARE SUPPORT

a) Any patch released by the OEM needs to be applied to the corresponding product within 7 working days. Any delay in applying the patch will attract penalty of Rs. 2000/- per day.

b) Any Software bug identified by HSVP / citizen / Bidder/ SI"s service engineer, will be classified in types: Critical Having bearing on the day-to-day functioning of the respective system / availability of application (full functionality or part functionality) for the HSVP users / citizens b. Non-critical: Not-having bearing on the day-to-day functioning of the respective system.

c) In case of dispute between HSVP and the successful Bidder with respect to classification of bugs as Critical or Non-Critical, decision of the Chief Administrator, HSVP, shall be final and binding on the Successful Bidder.

d) Resolution time & the penalty component for the bug fixing is given below (applicable on 24 * 7 basis):

Type of Bug	Bug / Problem Resolution Time	Penalty Amount
Critical	2 hours	Rs. 2000/- (per hour)
	1 hour if the bug / problem has re-occurred within 7 days of the earlier resolution	Rs. 2000/- per hour beyond 8 hours
		Rs. 4000/- per hour beyond 24 hours
Non-critical	3 working days	Rs. 500/- (per day)
		Rs. 2000/- per day beyond 7 days
	1 working day if the bug / problem has re-occurred within 15 days of the earlier resolution	Rs. 2000/- per day beyond 10 days

Response Time Performance Criteria Response time: Response time is the time interval between the instant at which the LAN user / Internet user at a terminal enters a request for a response from the Database server and the instant at which the response is received completely at the terminal.

User Activity	LAN Users/Internet User (App Server to DB) 90% of cases	LAN Users/Internet User (App Server to DB) ALL
Menu Navigation – To display the menu as per the defined user role and profile	< 4 sec	< 6 sec
Screen Opening – To display the selected data entry screen from the menu chosen	< 4 sec	< 6 sec
Field Navigation – To navigate between the data entry fields in the Screen	< 7 sec	< 10 sec
Look up response time – To display items from List of Values	< 10 sec	< 12 sec
Look up response time – To display the required GIS & map data	< 10 sec	< 15 sec

Screen Navigation – Time taken to navigate from one screen (tab page) to another which does not involve processing in earlier screen	< 5 sec	< 7 sec
Map Navigation- Time taken in map rendering with all visible layers (with scale dependency) on using navigation tools.	< 6 sec	< 10 sec
Transaction Commit – Response time taken to commit a simple transaction	< 10 sec	< 15 sec
Query Retrieval Response Time		
Simple query	< 8 sec	< 15 sec
Medium complexity query	< 15 sec	< 20 sec
High Complexity query	< 20 sec	< 30 sec
Reports Generation Response Time		
Simple Report	< 10 sec	< 20 sec
Medium Complexity report	< 45 sec	< 90 sec
High Complexity report	< 90 sec	< 3 min

4. Non-adherence to the above-mentioned response time would be considered as a bug and the penalty would be levied as per above table for the non-resolution. Support service shall be available 24 * 7.

5. Bidder shall provide software to measure the performance for the above mentioned SLAs.

6. The successful bidder will have to maintain strict Privacy and confidentiality of all the data it/its staff gets access to. Adequate provisions to be made to not to allow unrestricted access to the data to people in the organization who have not got the necessary permissions. Successful Bidder cannot sell or part with any data in any form. Penalty of Rs. 1,000/- to Rs. 100,000/- would be charged on default of this service condition. The exact amount of the penalty will be decided by HSVP based upon severity of the default.

7. The successful bidder will ensure the security of each component of the project from a third party Cert-In empanelled vendor.

9.6 DRAFT CONTRACT

- Draft Contract Document as provided by HSVP, that will be entered with the BIDDER is provided along with the RFP as a separate document for successful bidder. The successful bidder will furnish Bank Guarantee of 10% of the order value with a validity of six months more than the expiry of contract dates within 15 days of the award of the contract.

- However, the assignment may be terminated any time at the discretion of HSVP without assigning any reason thereof if the services are not found satisfactory or service/services are not required by HSVP after certain period.

10 APPENDICES

10.1 ADDITIONAL INFORMATION RELATED TOTHE PROJECT

ORGANIZATION OVERVIEW

The Haryana Shehri Vikas Pradhikaran (HSVP), a statutory body of Haryana Govt. was constituted under the Haryana Shehari Vikas Pradhikaran Act, 1977. Before the constitution of HSVP, the Department of Urban Estates, which was established in the year 1962, used to look after the work concerning planned development of urban areas and it functioned under the aegis of the Town & Country Planning Department. The functioning of the Urban Estates Department was earlier regulated by the Punjab Urban Estates (Development & Regulations) Act, 1964 and rules made there under and the various development activities used to be carried out by different departments of the State Govt. such as P.W.D (B&R), Public Health, Haryana State Electricity Board etc. But it was observed that the involvement of several agencies in the development of Urban Estates at various places had given rise to problems of coordination with the result that growth of most of Urban Estates became slow and caused unnecessary dissatisfaction among the plot-holders in particular and public in general. Besides, as the Department had to follow the financial rules and regulations of Govt., the arrangement of finances and sanction of estimates took a long time and the development works had not kept pace with the required standards of physical development. It was also considered that being Govt. department, it was unable to raise resources from various lending institutions although there were various financial institutions in the country to finance urban development programmes which could be availed of. Thus in order to overcome all these difficulties and to achieve the expeditious development of urban estates, it was felt that the Department. Of Urban Estates should be converted into such a body which could take up all the developmental activities itself and provide various facilities in the urban estates expeditiously.

FUNCTIONS CARRIED OUT BY THE PRADHIKARAN

The Pradhikaran has taken over work which was being handled by individual departments. The main functions of Haryana Shehri Vikas Pradhikaran are as under:-

• To promote and secure development of urban areas with the power to acquire, sell and dispose off property, both movable and immovable

• To acquire, develop and dispose land for residential, industrial and commercial purpose

• To make available developed land to Haryana Housing Board and other bodies for providing houses to economically weaker sections of the society ; and

• To undertake building works.

10.2   FORMATS FOR SUBMISSION OF PROPOSAL

[Location, Date]

To

<u>**<ADDRESS>**</u>

Phone:

Fax:

e-mail:

Dear Sir/Madam,

Sub: <u>**<SUBJECT>**</u>

We, the undersigned, offer to provide the consulting services for the above in accordance with your Request for Proposal dated _____, and our proposal. We are hereby submitting our proposal, which includes this Prequalification & Technical proposal sealed under a separate envelope. Our proposal is binding upon us. We understand you are not bound to accept any Proposal you receive.

Yours sincerely,

Authorized Signatory,

Name and Title of Signatory,

Name of the Firm:

Address:

Telephone No:

Fax No:

E-mail:

10.3 CHECKLIST FOR PREQUALIFICATION CRITERIA

IMPORTANT INSTRUCTION: Bidder is requested to conform to respective sections of the RFP Document when responding to this section:

S. No	Criteria	Whether Met	Reference Details
1	The bidder should be a company registered under Indian Companies Act, 1956/2013 or a Partnership Firm registered under Indian PartnershipAct,1932 or a Proprietorship firm or Limited Liability Partnership Firm under Limited Liability Partnership Firm Act 2008. The company/ firm should have been in operations for at least 5 years.	Yes/No	Certificates of incorporation / registration as may be applicable
2	The bidder should have in its name PAN (Permanent Account Number) with Income Tax authority in India.	Yes/No	Copy of the PAN Card signed by Authorized Signatory of the Bidder
3	The bidder should have in its name GST Registration number in India.	Yes/No	Copy of GST Registration Certificate signed by Authorized Signatory of the Bidder.
4	The Bidder should have at least average turnover of INR 5 (Five)Crores in the last three years. (FY 2019-20, 2020-21, 2021-22) from the business area of Base Map creation/Updating, Surveying, GIS Application Software Development, and Implementation for last 3 audited financial years (2019-20, 2020-21, 2021-22).	Yes/No	CA Certificate with CA's Registration Number/ Seal clearing mentioning the Turnover, Net worth and Copies of Audited Balance Sheets. Certified provisional is accepted for current FY)
5	The bidder should have a positive net worth as on 31-03-2023	Yes/No	CA Certificate with CA's Registration Number/ Seal

S. No	Criteria	Whether Met	Reference Details
6	The Bidder should have been engaged in t h e following category for any State/ Central Government Organization/PSU in last 5 years in India. a) Digitization, Geo-referencing & Superimposition of Layout Plan Maps & demarcation/ Revenue Cadastral Maps in Digital Land use Maps for at least 5 nos. of Towns in India and completed in past 5 years, as on date of Bid submission. b) Base map Creation, Geo-referencing & digitization of base map in India for at least 200 square kilometers of area in India completed in past 5 years. c) Survey & mapping of minimum 300000 Properties/ Points of interest /locations / assets survey in any part of India.	Yes/No	Work Orders/ Service Agreement or Completion Certificate from the client
7	The Bidder should have Past Experience in implementation of COTS or Open source Web based GIS solution completed and operational during the last 10 years, as on Date of Bid Submission, for Government or its Autonomous / PSU in India.	Yes/No	Work Orders / Service Agreement or Completion Certificate from the client
8	The Bidder will setup an office in Tricity-Chandigarh/ Delhi-NCR, within 1 month after the award of job	Yes/No	Self-Attested Letter by Company / Firm / Agency
9	The bidder must possess a valid: ISO certificate 9001:2015 (for Consulting and Implementation services in the Field of GIS and Remote sensing).	Yes/No	Copies of relevant certificates valid as on date of bid submission
10	Bidder should have experience in working in a project in a State/ Central Government Organization/PSU /Development Authority/State Institute for Town Planning Urban Local Body/ Municipal Corporation in India.	Yes/No	Copies of relevant experience certificates valid as on date of bid submission
11	Any organization debarred / black- listed by Central / State Government in India, at the time of submission of the RFP, shall not be allowed to participate in this tender. Bidder need to submit a self-certification in this regard	Yes/No	Self-Attested Letter by Company / Firm / Agency
12	The Bidder should have at least 50 permanent resources working for GIS data creation / GIS data collection.	Yes/No	Certificate from the Auditor / Company Secretary / Head HR with summary of profile of 50 (Min) resources.

S. No	Criteria	Whether Met	Reference Details
13	Should submit an escalation matrix with contact details with mobile & email address up to head of the organization.	Yes/No	Escalation matrix

10.4 CHECKLIST FOR TECHNICAL EVALUATION

S. NO.	Criteria	Whether Met	Reference Details
A	**Commercial & Professional Strength of the Bidder**		
A1.	Average Turnover of Bidder / Consortium during the last 3 financial years. (FY 2019-20, 2020-21, 2021-22).	**Yes/ No**	CA Certificate with CA's Registration Number/Seal clearly mentioning the Turnover or Audited Balance Sheet (Certified Provisional is accepted for current FY).
A2.	Certifications	**Yes/ No**	Relevant copy of certificate highlighting validity
B	**Experience of the Bidder**		
B1	Prior experience in working in a project in a State/ Central Government Organization / PSU / Development Authority / State Institute for Town Planning Urban Local Body / Municipal Corporation in India	**Yes/ No**	Work Orders/ Service Agreement and Completion Certificate from the client. In case of ongoing projects interim certificates with atleast 60% completed works is accepted
B2	Prior experience in working in a project in a State/ Central Government Organization / PSU / Development Authority / State Institute for Town Planning Urban Local Body / Municipal Corporation in India	**Yes/ No**	Work Orders/ Service Agreement and Completion Certificate from the client. In case of ongoing projects interim certificates with atleast 60% completed works is accepted
B3	Prior experience in working in a project in a State/ Central Government Organization / PSU / Development Authority / State Institute for Town Planning Urban Local Body / Municipal Corporation in India.	**Yes/ No**	Work Orders/ Service Agreement and Completion Certificate from the client. In case of ongoing projects interim certificates with atleast 60% completed works is accepted
B4	Past experience in development and commissioning Web GIS Applications for Central Govt., of India / Indian State Govt. Organization with COTS or Open source platform in the last 5 (five) years.	**Yes/ No**	Work Orders/ Service Agreement and Completion Certificate from the client. In case of ongoing projects interim certificates with at least 60% completed works is accepted

S. NO.	Criteria	Whether Met	Reference Details
B5	Bidder should have Completed Development and Commissioning Live Web GIS Application for Central Govt. of India / any Indian State Govt. Organization / Indian Public sector undertakings in the last five years with aggregate value of the projects excluding cost of surveys, Hardware and COTS associated licenses in the last five years.	**Yes/ No**	Work Orders/ Service Agreement and Completion Certificate from the client. . In case of ongoing projects interim certificates with at least 60% completed works is accepted
B6	Past experience in Commissioning of Machine learning enabled geo-spatial technology applications to auto detect the land use changes and encroachments.	**Yes/ No**	Work Orders/ Service Agreement and Completion Certificate from the client. . In case of ongoing projects interim certificates with at least 60% completed works is accepted
B7	The Bidder should have experience in using machine learning and AI Algorithms on Satellite or Drone based images for Central Govt. of India / Indian State Govt. Organizations.	**Yes/ No**	Work Orders/ Service Agreement and Completion Certificate from the client. . In case of ongoing projects interim certificates with at least 60% completed works is accepted
B8	Past experience in development of Web GIS Application with integration with existing 3rd party applications	**Yes/ No**	Work Orders/ Service Agreement and Completion Certificate from the client. . In case of ongoing projects interim certificates with at least 60% completed works is accepted
C	**Technical Presentation**		
C1	Proposed Approach & Methodology in the Technical Proposal	**Yes/ No**	Marks would be allotted based on the Technical Presentation. The presentation would be considered as part of the Technical Proposal.
C2	Technical demonstration on the Web GIS, Remote Sensing, Mobile Application and Machine Learning.	**Yes/ No**	Marks would be allotted based on the Technical demonstration of the desired output and user friendliness. The presentation Would be considered as part of the Technical Proposal.
C3	Team to be deployed onsite/offsite in respect to the Team Composition and deployment plan.	**Yes/ No**	Details to be provided in Technical Proposal

10.5 UNDERTAKING FOR FULL-TIME PROFESSIONALS WORKING IN GIS DATA CREATION AND GIS APPLICATION SOFTWARE DEVELOPMENT COMPONENTS ON COMPANY'S PAYROLL

<<To be printed on Company's Letterhead and signed by Authorized Signatory>>

Date: DD/MM/YYYY

To,
Chief Administrator,
Haryana Shehri Vikas Pradhikaran

Subject: Undertaking for Technically Qualified Full-time Professionals on Company's Payroll

Dear Sir,

I have carefully gone through the Terms & Conditions contained in the RFP document for **"Selection of the vendor for Digitization, Geo-referencing & Super-imposition of Layout Plans for the property areas so as to develop GIS database of the HSVP properties".** I hereby declare that my company<company's name> has <number > full-time professionals working in the business unit with required experience in GIS and/ or any of the component as on the date of bid submission.

#	Name of the Resource	Designation	Highest Qualification	Total Experience (in years)	Total Relevant Experience (in Years)

I further certify that I am competent officer in my company to make this declaration. Yours sincerely,

_____
Signature of Authorized Signatory (with official seal)
Name   :
Designation   :
Address   :
Telephone & Fax   :
E-mail Address   :

10.6 FORMAT FOR THE CVs OF THE MANPOWER PROPOSED

1.	Name of the Staff	
2.	Current Designation in the Organization	
3.	Proposed Role in the Project	
4.	Proposed Responsibilities in the Project	
5.	Date of Birth	
6.	Educational Qualifications	<Degree>/<Diploma>, <College/University>, <Year of Passing>
7.	Key Training and Certifications	

8.	Language Proficiency	Language	Reading	Writing	Speaking

9.	Employment Record (For the Total	From / To:	Employer	Position Held

	Relevant Experience)			
10.	Total No. of Years of Work Experience			
11.	Total No. of Years of Experience for the Role Proposed			

12.	Highlights of relevant assignments handled and significant accomplishments	Use following format for each project

Name of Assignment / Project:	
Year:	
Location:	
Client:	
Main Project Features:	
Positions Held:	
Activities Performed:	

10.7 PROJECT DETAILS SHEET

Project details should be submitted in the following format as per prequalification and technical evaluation criteria.

1.	Name of the assignment:	
2.	Country:	
3.	Location within Country :	
4.	Name of Client & Address:	
5.	Professional Staff provided by applicant:	
6.	Project start date and Implementation/ completion date :	
7.	Approx. Value of Services (in Rs.):	
8.	Name of associated firm(s) , if any , no. of man months of professional staff provided by the firm(s) :	
9.	Name of Senior Staff involved (Project Director/Coordinator, Team Leader) involved and function performed:	
10.	Narrative Description of Project:	
11.	Description of Actual Services Provided by your Staff:	

11 FINANCIAL MATRIX

SCHEDULE OF WORK / ITEM(S)				
S.No	Description of Work / Item(s)	Units	Units approx	Estimated Cost
1	Design, Development and implementation of GIS System at HSVP HQ - GIS Lab including Web and Mobile application excluding COTS software which will be provided by HSVP.	Lump sum	Lump sum	
2	Collection of Ground Control Points (GCP) using DGPS for Image Geo-referencing	Per GCPs	5000	
3	Collection & Verification of Maps	Per Map	2000	
4	Ground Verification of HSVP properties	Per Property	334260	
5	Digitization, Geo referencing, Superimposition, QA&QC of data pertaining to about 1650 Awards of 450 Revenue Estates, 1600 Approved Layout plans, Sajra Plans, latest approved demarcation plans as well as zoning plans for GIS Database Creation.	Per Acre	70000	
6	AMC (Annual Maintenance Contract) for a period of 3 years with two dedicated onsite resources	Lump sum	Lump sum	
7	Image processing for extraction of desired map layers	Per sq km	500	
8	Drone mapping rate	Per Acre		

Note:
- **While evaluating the Financial Bids, HSVP reserves the right to exclude any of the above line item.**
- **Actual quantities mentioned in the above table may increase or decrease @10%.**
- **Project Cost should be exclusive of applicable taxes.**
- **AMC (Annual Maintenance Contract) will start after 6 months of Sign-Off and all the errors/ deviations in the system reported in the next one year will be updated by the company without any extra cost.**

12 OTHER INSTRUCTIONS TO THE BIDDERS

12.1 KEY DATES:
The bidders are strictly advised to follow dates and times as indicated in the Notice Inviting Tenders. The date and time will be binding on all bidders. All online activities are time tracked and the system enforces time locks that ensure that no activity or transaction can take place outside the start and end dates and the time of the stage as defined in the Notice Inviting Tenders.

12.2 SUBMISSION OF ACTUAL ONLINE BIDS:
Contactors have to submit their bids online and upload the relevant documents. The process is required to be completed within the date and time as stated in the Notice Inviting Tenders (Key Dates). The electronic bids of only those contactors who have submitted their bid within the stipulated time, as per the tender time schedule (Key Dates), will be accepted by the system. A bidder who does not submit his bid within the stipulated time will not be allowed to submit his bid by the E-Tendering System.

Note: Bidders participating in e-tendering shall check the validity of his/her Digital Signature Certificate before bidding in the Tenders floated online at e-tendering website https://etenders.hry.nic.in

12.3 ERASURES OR ALTERATIONS:
The bid should contain no alterations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case corrections should be duly stamped and initialed/ authenticated by the person /(s) signing the Bid. The Bidder is expected to examine all instructions, forms, terms and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidders risk and may result in rejection of the bid.

12.4 LANGUAGE OF BID:
The bid as well as all correspondence and documents relating to the bid exchanged by the bidder and the HSVP shall be in English language only.

12.5 AUTHORIZED SIGNATORY
The selected bidder shall indicate the authorized signatories who can discuss and correspond with HSVP, with regard to the obligations under the contract. The selected bidder shall submit at the time of signing the contract a certified copy of the resolution of their board, authenticated by the company secretary, authorizing an official or officials of the bidder to discuss, sign agreements/contracts with HSVP, raise invoice and accept payments and also to correspond. The bidder shall provide proof of signature identification for the above purposes as required by HSVP.

12.6 CANCELLATION OF TENDER PROCESS
HSVP reserves the right to accept or reject in part or full any or all offers without assigning any reason thereof. Any decision of HSVP in this regard shall be final, conclusive and binding upon the bidders. HSVP reserves the right to accept or reject any Bid in part or in full, and to cancel the

Bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for HSVP's action. During the evaluation process at any stage if it is found that the bidder does not meet the eligibility criteria or has submitted false/incorrect information the bid will be rejected summarily by HSVP.

12.7 PUBLICITY

Any publicity by the bidder in which the name of HSVP is to be used should be done only with explicit written permission of HSVP. The bidder shall not make or allow making a public announcement or media release about any aspect of the contract unless HSVP first gives the Vendor its prior written consent.

12.8 CONFIDENTIALITY

The bidder must undertake that they shall hold in trust any Information received by them, under the Contract/Agreement, and the strictest of confidence shall be maintained in respect of such Information. The bidder has also to agree:

- To maintain and use the information only for the purposes of the Contract/Agreement and only as permitted by HSVP.

- To only make copies as specifically authorized by the prior written consent of HSVP and with the same confidential or proprietary notices as may be printed or displayed on the original:

- To restrict access and disclosure of Information to such of their employees, agent, strictly on a "need to know" basis, to maintain confidentiality of the Information disclosed to them in accordance with the Clause and to treat all Information as Confidential Information.

- Conflict of interest: The Vendor shall disclose to HSVP in writing, all actual and potential conflicts of interest that exist, arise or may arise (either for the Vendor or the Bidder's team) in the course of performing the Service (s) as soon as practical after it becomes aware of that conflict.

12.9 NON- TRANSFERABLE OFFER

This Request for Proposal (RFP) is not transferable. Only the bidder who has downloaded this document and submitted the necessary RFP price (for downloaded RFP) will be eligible for participation in the evaluation process.

12.10 PERIOD OF VALIDITY OF BID

Bids shall remain valid for 180 (One Hundred eighty) days after the date of bid opening prescribed by HSVP. HSVP holds the rights to reject a bid valid for a period shorter than 180 days as non-responsive, without any correspondence. In exceptional circumstances, HSVP may ask the Bidder's consent to an extension of the validity period. The request and the response thereto shall be made in writing. Extension of validity period by the Bidder should be unconditional and irrevocable. The Bid Security provided shall also be suitably extended. A bidder acceding to the request will neither be required nor be permitted to modify its bid. A bidder may refuse the request without forfeiting its bid security. In any case the bid security of the bidders will be returned after completion of the

process.

12.11 PRELIMINARY SCRUTINY

HSVP will scrutinize the offer/bids to determine whether they are complete, whether any errors have been made in the offer/bid, whether required technical documentation has been furnished, whether the documents have been properly signed, and whether items are quoted as per the schedule.

12.12 FORMAT FOR COMMERCIAL OFFER

The commercial offer should be quoted online in Indian Rupees**.**

12.13 13.13 SIGNING OF THE BID

The bid shall be signed by a person or persons duly authorized by the Bidder with signature duly attested. In the case of a body corporate, the bid shall be signed by the duly authorized officers.

12.14 COSTS OF PRFPARATION & SUBMISSION OF BID

The bidder shall bear all costs for the preparation and submission of the bid. HSVP shall not be responsible or liable for reimbursing/compensating these costs, regardless of the conduct or outcome of the bidding process. The bidder shall certify that the solution offered is complete in all respects. In case any of the component required for the completion of the project is found missing, the same will be treated as included in the solution and no cost will be charged.

12.15 CONFIDENTIALITY OF THE BID DOCUMENTS

The bidder, irrespective of his/her participation in the bidding process, shall treat the details of the documents as secret and confidential.

12.16 OWNERSHIP AND RETENTION OF DOCUMENTS

HSVP shall own the documents, prepared by or for the selected bidder arising out of or in connection with the Contract.

 Forthwith upon expiry or earlier termination of the Contract and at any other time on demand by HSVP, the Vendor shall deliver to HSVP all documents provided by or originating from HSVP and all documents produced by or from or for the Vendor in the course of performing the service (s), unless otherwise directed in writing by HSVP at no additional cost.

 The bidder shall preserve all documents provided by or originating from HSVP and all documents produced by or from or for the bidder in the course or performing the service (s) in accordance with the legal, statutory, regulatory obligations of HSVP in this regard.

12.17 DISCLAIMER & DISCLOSURES:

HSVP Panchkula has prepared this document to give background information on the captioned project to the interested agencies. While HSVP has taken due care in preparation of the information contained herein and believe it to be accurate, neither HSVP nor any of its authorities or agencies nor any of their respective officers, employees, agents or advisors give any warranty or

make any representations, express or implied as to the completeness or accuracy of the information contained in this document or any information which may be provided in association with it.

The information is not intended to be exhaustive. Interested agencies/contractors are required to make their own inquiries and respondents will be required to confirm in writing that they have done so and they do not rely only on the information provided by HSVP in submitting the Tender. The information is provided on the basis that it is non–binding on HSVP or any of its authorities or agencies or any of their respective officers, employees, agents or advisors.

HSVP reserves the right not to proceed with the Project or to change the configuration of the Project, to alter the time table reflected in this document or to change the process or procedure to be applied. It also reserves the right to decline to discuss the matter further with any party submitting the Tenders.

HSVP reserve the right to amend / withdraw any of the terms and conditions in the Tender Documents or to reject any or all Tenders without giving any notice or assigning any reason. HSVP also reserves the right to accept or reject any or all tenders in full or part without assigning any reason whatsoever. HSVP shall also not be bound to accept merely the lowest tender but the technical suitability, capability and superiority of the concept/ technology interface/system etc. shall be of prime consideration for selection of the appropriate set of concept/ technology interface /system collectively considered as a complete solution.

No contractual obligation on behalf of HSVP, whatsoever, shall arise from this Tender unless & until a formal contract is signed and executed by duly authorized officers of HSVP and the bidder in due course after invitation of tenders.

HSVP may modify any / all of the terms of this Tender process giving due information to bidders.

HSVP will not be liable for any costs incurred by the Bidders in the preparation of the Tender & its presentation. The preparation of Bidder's proposal will be made without obligation by HSVP to acquire any of the items included in the Bidder's product, or to select any Bidder's proposal, or to discuss the reasons why the Bidder's proposal is accepted or rejected.

If at any stage, HSVP finds the information supplied by the bidder to be false/ misleading/ incorrect, it shall be well within its rights to reject the bid.

Every effort should be made by successful bidder to complete the entire work within the committed Project implementation schedule. In case the successful bidder fails to comply with the specified time schedule as per the approved and accepted terms and conditions, and where the progress of work is not found satisfactory, and commensurate with the expected progress as per the terms and conditions, HSVP reserves the right to cancel the order and forfeit the EMD. The decision of the HSVP in this regard shall be final and binding on the successful bidder. The successful bidder cannot claim any compensation for such cancellation or determination of contract.

In case of non-completion of the entire work within the stipulated time, and the delay is not attributable to site requirements, Liquidated Damage (L.D.) @1% of the tendered value

per week shall be recovered from the bill of the successful bidder subject to a maximum of 10% of the tendered value.

All disputes and differences between the successful bidder and HSVP of any kind whatsoever arising out of or in connection with the order on carrying out the subject work shall be referred to the arbitration. The provisions of the Arbitration and Conciliation Act 1996 or any statutory modification or re-enactment thereof and of the rules made there under for the time being in force shall apply to arbitration's proceedings under this Clause.

GENERAL TERMS & CONDITIONS OF CONTRACT

12.18 USE OF RFP DOCUMENT AND OTHER INFORMATION

Successful bidder shall not disclose the contract agreement without the Bidder's prior written consent, or any provision thereof, or any specification, pattern, sample or information furnished by or on behalf of Bidder in connection to any person other than a person employed by the Bidder in the performance of the contract agreement and the scope of work. Disclosure of document/information to any such employed person shall be made in confidence and shall extend only so far as may be necessary for such performance.

12.19 COMPLIANCE WITH LAWS/PERMITS

The successful bidder shall comply with all local, state rules, regulations, ordinances, codes, and laws relating to the work or the conduct thereof and shall secure and pay for any permits and licenses necessary for the execution of the work and successful bidder shall be responsible for the same.

Bidder shall give an undertaking for meeting all statutory requirements relating to the employment of manpower as law.

12.20 FORFEITURE OF EARNEST MONEY

(i)   If the bidder withdraws his bid before the expiry of validity or after the acceptance of the bid, the earnest money deposited by the bidder will be forfeited.

(ii)   In case successful bidder fails to comply with the project milestones as specified in the RFP, the earnest money deposited will be forfeited.

(iii)   In case of issue of the Letter of Intent, if the bidder fails to:
    a.   Accept the Letter of Intent by returning a duly signed copy within the time limit specified; and / or
    b.   Execute the contract agreement; and / or
    c.   Furnish the performance bank guarantee as specified in this Document the earnest money deposit will be forfeited

12.21 FORCE MAJEURE

Neither party shall be responsible to the other for any delay or failure in performance of its obligations due to any occurrence commonly known as Force Majeure which is beyond the control of any of the parties, including, but without limited to, fire, flood, explosion, acts of God or any Governmental body, public disorder, riots, embargoes, or strikes, acts of military authority, epidemics, strikes, lockouts or other labor disputes, insurrections, civil commotion, war, enemy actions. If a Force Majeure arises, the Bidder shall promptly notify HSVP and HSVP

in writing of such condition and the cause thereof. Unless otherwise directed by HSVP and HSVP, the successful bidder shall continue to perform his obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event. The successful bidder shall be excused from performance of his obligations in whole or part as long as such causes, circumstances or events shall continue to prevent or delay such performance.

12.22 TERMINATION OF THE CONTRACT

(i)   In the event of the bidder failing duly and properly to fulfill the contract or committing breach of any of the terms and conditions of this contract or repeatedly providing services liable to rejection hereunder or failing, declining, neglecting or delay to comply with any demand or requisition or otherwise not executing the same in accordance with terms of this contract or not achieving the project milestones or if the bidder or his agent or servants being guilty of fraud in respect of this contract or any of his partners or representatives found directing, giving, promising or offering any bribes, gratuity, gift loan, perquisite, reward or advantage pecuniary or otherwise to any person in the employment of Government in any way relating to such officers or person or persons, officer or employment or if the bidder or any of his partners become insolvent or apply for relief as insolvent debtor or commence any insolvency proceedings or make any composition with his/their creditors or attempts to do so, then without prejudice to HSVP rights and remedies otherwise, HSVP shall be entitled to terminate this contract forth with and may claim back all or part of the money already paid to the bidder.

(ii)   The termination of this contract in whole or part under any conditions shall not be affected by the acceptance, meanwhile or subsequently, of services accepted or made at any station whether in ignorance of the termination or otherwise.

(iii)   If during the currency of the contract, the successful bidder becomes bankrupt or otherwise insolvent or is likely to become insolvent or bankrupt, HSVP may, at any time, terminate the contract agreement by giving written notice to the successful bidder. Notwithstanding the above, such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to HSVP.

12.23 INDEMNITY

The Bidders shall indemnify Client against all third party claims arising out of a court order or arbitration award for infringement of patent, trademark/ copy right arising from the use of the supplied services or any part thereof.

Either party will accept liability without limit (1) for death or personal injury caused to the other party by its negligence or the negligence of its employees acting in the course of their employment; (2) any other liability which by law either party cannot exclude. This does not in any way confer greater rights than what either party would otherwise have at law.

a) The Contract does not contemplate any consequential, indirect, lost profit, claim for tort or similar damages of any form to be paid by the Bidders to Client or any other organizations

b) Notwithstanding anything to the contrary contained in the Contract, in no event will the Bidders be liable to HSVP whether a claim be in tort, contract or otherwise for any amount in excess of 100% of the total professional fees payable under this Contract.

c) No action regardless of form, arising out of this Contract, may be brought by either party; more than one year after the cause of action has accrued.

12.24 ARBITRATION

In the event of any dispute or differences arising under these conditions or any special conditions of the contract in connection with this contract, the same shall be referred to arbitration, for final decision and the same shall be binding on all parties.

Any other terms and conditions, mutually agreed prior to finalization of the order / Contract shall be binding on the Bidder.

Client and the Bidder shall make every effort to resolve amicably by direct negotiation any disagreement or dispute arising between them under or in connection with the purchase order. If any dispute shall arise between parties on aspects not covered by this Contract, or the construction or operation thereof, or the rights, duties or liabilities under these except as to any matters the decision of which is specially provided for by the general or the special conditions, such dispute shall be referred to two arbitrators, one to be appointed by each party and the said arbitrators shall appoint an umpire in writing before entering on the reference and the award of the arbitration or umpire, as the case may be, shall be final and binding on both the parties. The arbitrators or the umpire as the case may be, with the consent of parties, may modify the timeframe for making and publishing the award. Such arbitration shall be governed in all respects by the provision of the Indian Arbitration and Conciliation Act, 1996 or later and the rules there under and any statutory modification or reenactment, thereof. The arbitration proceedings shall be held in Panchkula, Haryana, India.

12.25 ACQUAINTANCE WITH ALL CONDITIONS

The bidder acknowledges that he has made himself fully acquainted with all the conditions and circumstances under which the supplies required under the contract will have to be made or furnished and with all the terms, clauses, conditions, specifications and other details of the contract and the bidder shall not plead ignorance of any of those as excuse in case of complaint against or on rejection of supplies tendered by him or with a view either to ask for encashment of any rates agreed to in the contract or to evading any of his obligations under the contract.

12.26 PROVISION FOR MODIFICATIONS

The parties agree to make suitable amendments and modifications to this Contract by mutual agreement as necessary, provided that no modification, amendment or variation of any provision of this Contract shall be effective unless the same has been approved in writing by each of the parties. Any reference to this Contract shall be construed as a reference to such Contract, as the same may from time to time be amended, varied, modified, supplemented.

12.27 LIMITATIONS OF LIABILITY

Further, bidder's cumulative liability for its obligations under contract shall not exceed the

total contract value.

12.28 RISK & COST

Risk purchase at the cost of supplier / service provider/ Bidder will be made on the failure of the supplier / service provider to make supply / to provide services as per Terms and Conditions mentioned in the tender documents. The difference of excess in cost thus incurred will be recovered from the supplier / service provider/ bidder in a suitable manner and even from his pending bills, earnest money or security whichever is available.

12.29 MISCELLANEOUS TERMS & CONDITIONS

a. The end product of the work assignment carried out by the Bidder, in any form, will be the sole property of Client.

b. The Bidder shall perform the services and carry out its obligations under the contract with due diligence and efficiency, in accordance with generally accepted techniques and practices used in the industry and with professional engineering and training / consulting standard recognized by national / international professional bodies and shall observe sound management practice. It shall employee appropriate advanced technology and safe and effective methods. The Bidder shall always act, in respect of any matter relating to this Contract, as faithful advisors to Client and shall at all times, support and safeguard Client legitimate interests.

c. The Bidder automatically agrees with Client for honoring all aspects of fair trade practices in executing the work orders placed.

d. In the event the Bidder or the concerned Division of the company is taken over / bought over by another company, all the obligations under the Contract with Client, should be passed on the compliance by the new company new Division in the negotiation for their transfer .

e. This Contract is intended solely for the benefit of the parties hereto. Nothing in this Contract shall be construed to create any duty or any liability to any person not a party to this Contract.

f. This Contract shall not be interpreted or construed to create an association, joint venture, or partnership between the parties or to impose any partnership obligation or liability upon either party. Neither party shall have any right, power or authority to enter into any Contract or undertaking, or act on behalf of or to act as an agent or representative of, or to otherwise bind, the other party.

g. Survival: - All provisions of this Contract, which are expressly or by implication come into or continue in force and effect after the expiration or termination of this Contract, shall remain in effect and be enforceable following such expiration or termination.
h. It will be the primary responsibility of successful bidder to close all the gaps identified by the security audit team of HSVP.
j. The bidder has to provide AMC of the project.

12.30 CONFIDENTIALITY

a. Neither party will disclose to any third party without the prior written consent of the other party any confidential information which is received from the other party for the purposes of providing or receiving Services which if disclosed in tangible form is market confidential or if disclosed otherwise is confirmed in writing as being confidential or if disclosed in tangible form or otherwise, is manifestly confidential. Each party will take measures to project the confidential information of the other party that, in the aggregate are no less protective than those measures it uses to protect the confidentiality of its own comparable confidential information, and in any event, not less than a reasonable degree of protection. Both parties agree that any confidential information received from the other party shall only be used for the purposes of providing or receiving Services under this Contract or any other contract between the parties

These restrictions will not apply to any information which:

i) Is or becomes generally available to the public other than as a result of a breach of an obligation under this Clause; or

ii) Is acquired from a third party who owes no obligation of confidential in respect of the information; or

iii) Is or has been independently developed by this recipient or was known to it prior to receipt

b. Notwithstanding Clause (a) mentioned above, either party will be entitled to disclose confidential information of the other (1) to its respective insurers or legal advisors, or (2) to a third party to the extend that this is required by any law rule or regulation or where there is a legal right. For duty or requirement to disclose provided in case of sub- clause(2) (and without branching any legal or regulatory requirement) where reasonably practicable not less than 2 business days notice in writing is first given to the other party.

c. Without prejudice to the foregoing provision of this clause above Bidder may cite the performance of the services to clients and projective clients as an indication of its experience.

d. The Bidder shall not, without Client's prior written consent, disclose the commercial terms of this Contract to any person other than a person employed by the Bidder in the performance of the Contract.

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