

Limited RFP for Selection of System Integrator to Provide O&M services of ETC System at Toll Plazas on National Highways

Tender No. IHMCL/LTE-RFP/ O&M-ETC/2024/02

01-02-2024

Indian Highways Management Company Limited (IHMCL)

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DISCLAIMER

The information contained in this Request for Proposal document (the “RFP”) or subsequently provided to prospective Bidder(s), whether verbally or in documentary or any other form by or on behalf of IHMCL or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP does not constitute an Agreement between IHMCL or prospective Bidders or any other Party and is neither an offer nor invitation by IHMCL to the prospective Bidders or any other person. The purpose of this RFP is to provide interested & eligible parties with information that may be useful to them in preparation of Technical and Financial qualification and making their financial offers (the “Bids”) pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by IHMCL in relation to the project

The assumptions, assessments, statements and information contained in the RFP, may not be complete or adequate. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP.

Information provided in this RFP to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of applicable laws, regulations, guidelines followed by IHMCL. IHMCL accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

IHMCL, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Bidder under any law whether written or otherwise , statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way for participation in this Bid.

IHMCL also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP.

IHMCL may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP.

The issue of this RFP does not imply that IHMCL is bound to select a Bidder or to award the project to any bidder.

PART-I: NOTICE INVITING TENDER

- 1.1 Bids are invited for selection of System Integrator to provide O&M services of ETC System at 25 Toll Plazas (refer Annexure-1) on National Highways. It is in continuation to RFE (Request for Empanelment) with Tender no. IHMCL/ETC/Empanelment/2021/01 released on 28.10.2021 by Indian Highways Management Company Limited (IHMCL) for eligible Bidders who are empanelled with IHMCL.
- 1.2 The Terms and Conditions or any other information unless specifically mentioned in this Limited RFP ref: - IHMCL/LTE-RFP/ O&M-ETC/2024/02 published on 01-02-2024 shall be considered of previous RFE with ref. no. IHMCL/ETC/Empanelment/2021/01 published on 28-10-2021.
- 1.3 The complete Bidding documents can be viewed / downloaded from e-tender portal i.e., <https://etenders.gov.in>. The Bids shall be liable for summarily rejection unless accompanied by the requisite documents as specified in this RFP. No Bids submitted after the closing date/time shall be considered.
- 1.4 All clarifications/ corrigendum will be published only on the e-procurement portal <https://etenders.gov.in> and IHMCL website www.ihmcl.co.in.
- 1.5 IHMCL reserves the right to accept or reject any or all bids received before signing of Contract Agreement without thereby incurring any financial or other liability to the affected Bidders.

Address for communication:

Indian Highways Management Co. Ltd. (IHMCL)

1st Floor, NHAI Head Quarter (Old Building), G-5 & 6

Sector 10, Dwarka

New Delhi 110 075

Phone: +91-11- 28042710;

Email: tenders@ihmcl.com; Website: www.ihmcl.co.in

PART II: DEFINITIONS

In this document, the following terms shall have respective meanings as indicated:

- i. **“Applicable Law”** means the laws, rules or regulations and any other instruments, having the force of law in Republic of India, as in force from time to time.
- ii. **“Bidder”** means, a company which participates in the Bid process and submits its proposal pursuant to this RFP.
- iii. **“Commencement date”** means the date upon which the Service Provider receives the notice to commence the work issued by IHMCL.
- iv. **“Automatic Number Plate Recognition (ANPR) Camera”** means camera system that uses technology to read and recognize a vehicle’s license plate number automatically, without the need for human involvement.
- v. **“Contract”** shall mean & include RFE, RFP, Notice for Inviting Tender (NIT), the tender documents, Letter of award and Letter of acceptance thereof and the formal agreement, to be executed between IHMCL and the Service Provider together with the complete documents referred to therein including the conditions with appendices and any special conditions, the specifications, designs, drawings, bill of quantities with rates and amounts. All these documents taken together shall be deemed to form one Contract and shall be complementary to each other
- vi. **“IHMCL”** means Indian Highways Management Company Ltd.
- vii. **“Letter of Award (LOA)”** means the issue of a signed letter by IHMCL to Successful Bidder conveying its intention to accept the offer of Successful Bidder and awarding the work mentioning the total Contract Value.
- viii. **“Local Currency”** means the Indian Rupees
- ix. **“MoRTH”** means Ministry of Road Transport and Highways
- x. **“NHAI”** means National Highways Authority of India.
- xi. **“Party”** shall mean IHMCL or Bidder individually and “Parties” shall mean IHMCL and Bidder collectively.
- xii. **“Personnel”** means persons hired by the Service Provider as employees and assigned to the performance of the Services or any part thereof.

- xiii. **“RFP”** shall mean this Request for Proposal dated 01-02-2024, including the written clarifications & Corrigendum/Addendum issued by IHMCL in respect of the RFP from time to time.
- xiv. **“RFE”** shall mean Request for Empanelment document published by IHMCL dated **28-10-2021** on the website of IHMCL.
- xv. **“Services”** means requirements defined in this RFP including all additional services associated thereto to be delivered by the Successful Bidder.
- xvi. **“Successful Bidder”** means the Bidder, who, after the complete evaluation process, has been issued the Letter of Award by IHMCL
- xvii. **“Service Provider”** means the Successful Bidder who has executed the contract with IHMCL and has complied with other requirements as specified in this RFP to the satisfaction of IHMCL
- xviii. **“Operations and Maintenance (O&M)”** means operations and maintenance typically includes the day-to-day activities necessary for the keeping equipment and its allied systems to perform their intended function.
- xix. Any other term(s), not defined herein above but defined elsewhere in this RFP shall have the meaning(s) ascribed to such term(s) therein and shall be deemed to have been included in this Section.

PART-III: SCHEDULE OF THE TENDER (KEY DATES)

S.No	Event Description	Date
1	Invitation of RFP	01-02-2024
2	Bid Due Date (Online Submission)	12-02-2024 (Up to 17:00 Hrs IST)
3	Bid Due date for physical submission of following documents at IHMCL office: - <ul style="list-style-type: none"> • EMD/Bid Security(not required in case of EMD submission through online payment) • Power of Attorney and Undertaking (refer Clause 8.2 and 8.3) 	12-02-2024 (Up to 17:00 Hrs IST)
3	Opening of requisite documents submitted Online and in physical form (like Bid form, PoA, Undertaking & Bid Security)	13-02-2024 (Up to 17:00 Hrs IST)
4	Opening of Financial Bids of Responsive Bids	To be intimated separately to responsive bidders
5	Issuance of Letter of Award (LoA)	Within 05 working days of financial opening
6	Submission of Performance Security	Within 07 working days of LoA issuance
7	Validity of Bid	180 days from Bid Due Date
8	Signing of Contract Agreement	Within 10 calendar days of LoA Issuance
9	Takeover of fee plazas as per Clause 6.5 (ASSIGNMENT TIMELINES)	Within 30 Calendar days from date of Contract Signing/commencement instruction from IHMCL

PART-IV: INSTRUCTIONS TO BIDDERS

4.1 Eligibility to Bid

Only the bidders who are empanelled with IHMCL are eligible to participate in the Bid. Bidders are required to submit Letter of Empanelment as proof with the application (Letter issued from IHMCL). The Empanelled Bidders of IHMCL as on RFP release are as below:-

S.No.	Company Name
1	M/s Vaaan Infra Pvt. Ltd.
2	M/s Prakash Asphaltings and Toll Highways (India) Ltd
3	M/s Kent Intelligent Transportation System Pvt Ltd
4	M/s Vara Infrovate Pvt Ltd and M/s Essae Digitronics Pvt Ltd (Consortium)
5	M/s Comvision India Pvt Ltd
6	M/s Qualix Information Systems LLP
7	M/s. Ashoka Buildcon Limited
8	M/s Green Tech Intelligent Transportation System LLP and M/s Comnet Vision India Pvt Ltd (Consortium)
9	M/s Rajdeep Info Techno Pvt. Ltd.
10	M/s Tecsidel India Private Limited and M/s Intelliroute India Services LLP (Consortium)
11	M/s Arya Omnitalk Wireless Solutions Pvt. Ltd.
12	M/s Bisotech India Private Limited
13	M/s Superwave Communication and Infrsolution Pvt. Ltd.
14	M/s Metro Infrasys Pvt Ltd
15	M/s ParknSecure India Pvt. Ltd
16	M/s Efkon India Pvt. Ltd.
17	M/s LogicMo System Pvt Ltd and M/s Suroj Buildcon Pvt Ltd (Consortium)
18	M/s TrafikSol ITS Technologies Pvt. Ltd.
19	M/s Technova Software & Hardware Solution Private Limited and M/s Jai Buildcon Private Limited (Consortium)
20	M/s IBI Group India Private Limited
21	M/s Rudra Techno Care LLP and M/s Ashirwad Smart Infralink Pvt Ltd (Consortium)
22	M/s Innovinc Aspire Infratech Solutions Private Limited and M/s R K Chavan Infrastructure Private Limited (Consortium)
23	M/s VRS Intelligent Innovative System Pvt Ltd and M/s Speedway Industries Pvt Ltd

	(Consortium)
24	M/s Tollman International Pvt Ltd and M/s WORLDFA Exports Pvt Ltd (Consortium)
25	M/s Devaditya Technocrates LLP
26	M/s Techsture Technologies India Pvt Ltd and M/s Royal Infraengineering Pvt Ltd (Consortium)

*** Bidders who are under debarment or delisting from empanelment as of the Bid due date shall not be eligible to participate in the RFP. Bid of such bidder shall be summarily rejected.*

4.2 Content Of RFP

- a) The RFP should be read in conjunction with any addenda or clarifications issued subsequent to publication of RFP.
- b) Bidders are advised to study the RFP carefully. Submission of the Bid will be deemed to have been done after careful study and examination of all instructions, eligibility norms, terms and requirement specifications in the RFP with full understanding of its implications. Bids not complying with all the stipulations and requirements as set forth in this RFP are liable to be rejected at the sole discretion of IHMCL. Failure to furnish all information required in the RFP or submission of a bid not substantially responsive to the RFP in all respects will be at the Bidder's risk and may result in the rejection of the bid.

4.3 Cost Of Bidding

The Bidder shall bear all costs associated with the preparation and submission of the Bid and IHMCL will in no case, be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

4.4 Amendment Of RFP

At any time prior to the closure of time for submission of bids, IHMCL, for any reason, whether at its own initiative or in response to the clarifications requested by prospective Bidders may modify the RFP by issuing amendment(s) or Corrigendum.

Any Corrigendum /Addendum issued as aforesaid shall be part of the RFP and shall be displayed /communicated on e-tender portal. No separate information will be passed to any Bidder in this regard.

4.5 Language Of Bid

The Bid prepared by the Bidder, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and IHMCL shall be written in English language only.

4.6 Bid Validity

- a) Bids shall remain valid for a period of 180 days from the last date of Bid due date. Any Bid valid for a shorter period shall be rejected as non-responsive. IHMCL has sole discretion to extend the period beyond 180 days.
- b) In exceptional circumstances, IHMCL may solicit Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing; however, no modification to such bid shall be permitted.

4.7 Bid Security

- a) The Bidder shall furnish, as part of the Bid, Earnest Money Deposit (EMD) /Bid Security for an amount INR 12,00,000/-(Rupees Twelve Lakh only). The Successful Bidder's EMD will be returned, without any interest, upon the Successful Bidder signing the Contract and furnishing the Performance Security in accordance with the provisions thereof.
- b) The Earnest Money shall be in the form of a Demand Draft OR Bankers Cheque or NEFT/RTGS mode. The Demand Draft shall be drawn in favor of "Indian Highways Management Company Limited" whereas NEFT/RTGS shall be done in below mentioned IHMCL Bank Account

A/c Holder Name = Indian Highways Management Company Limited

Bank Name = Canara Bank

A/c No. = 8598201006217

IFSC = CNRB0008598

Branch = Delhi NHAI Dwarka Branch New Delhi-110075

- c) Any bid not accompanied by an acceptable Earnest Money Deposit shall be rejected by IHMCL as non-responsive.

- d) The Earnest Money Deposit of unsuccessful bidders will be returned upon written request from the unsuccessful bidder, after expiry of the period of Bid Validity prescribed by IHMCL or Signing of Contract Agreement between IHMCL and successful bidder.
- e) The Bid Security / Earnest Money will be forfeited:
 - i. if the Bidder withdraws or modifies the Bid during the period of Bid validity;
 - ii. if the Bidder does not accept the correction of the bid price, pursuant to clause pertaining to imbalance bid;
 - iii. in the case of a Successful Bidder, if the Bidder fails within the specified time limit to -
 - iv. sign the Contract; and/or
 - v. Furnish the required Performance Security; or
 - vi. if the Bidder is found to be engaged in corrupt or fraudulent practices.

4.8 No alternative proposals By Bidders

Bidder shall submit only one bid/offer for this RFP that fully complies with the requirement of the RFP including conditions of Contract. Conditional offer or alternate offer will not be considered further in the process of tender evaluation.

4.9 Deadline For Submission of Bid

- a) Complete Bid documents as specified in the RFP must be received as specified on or before the date and time specified under “Key Dates”. In the event of the specified date for the submission of Bids being declared a non-working day for IHMCL, the Bids will be received up to the specified time on the next working day.
- b) IHMCL may, at its discretion, extend the deadline for submission of Bids by issuing an amendment in which case all rights and obligations of IHMCL and the Bidders previously subject to the original deadline will thereafter be subject to the deadline extended.
- c) Offer by fax / e-mail will not be accepted and shall be treated as void ab-initio.

4.10 Late Submission

Bids received after the deadline shall not be considered and shall be rejected summarily. No representation or communication would be entertained in this regard from any Bidder.

4.11 Modification And Withdrawal of Bids

- a) Bidders may modify or withdraw their Bid before the deadline.
- b) The Bidder may modify, substitute or withdraw its e- Bid after submission prior to the Bid Due Date. No Bid can be modified, substituted or withdrawn by the Bidder on or after the Bid Due Date & Time.
- c) For modification of e-Bid, Bidder has to detach its old Bid from e-Tender portal and upload / resubmit digitally signed modified Bid. For withdrawal of Bid, a Bidder has to click on withdrawal icon at e-Tender portal and can withdraw its e-Bid. Before withdrawal of a Bid, it may specifically be noted that after withdrawal of a Bid for any reason, Bidder cannot re-submit e-Bid again.

4.12 Opening and Evaluation of Bids

a) Opening of Bids

- i. The bids shall be opened in 2 stages as per Key Timelines mentioned in RFP.
- ii. In the first stage, responsiveness of the bids received shall be evaluated based on the documents submitted on e-tender portal and in physical form such as Bid Form, PoA (as applicable, in case of re- submission), Undertaking (as applicable, in case of re-submission) & EMD/Bid Security(**EMD physical submission not required in case of submission through online**) will be opened at G 5 & 6, Ground Floor, NHAI HQ Building, Sector-10, Dwarka, New Delhi-110075 as per schedule defined under “Key Dates”.
- iii. IHMCL will subsequently examine and evaluate the bid documents submitted as in (ii) above in accordance with the provisions set out in this RFP.
- iv. In the second stage, the financial bids of the responsive bids shall be opened at G 5 & 6, Ground Floor, NHAI HQ Building, Sector-10, Dwarka, New Delhi-110075 as per schedule defined under “Key Dates”.
- v. The processes are explained in details in subsequent sections as below.

b) Evaluation of Bids:

i. Stage -1: - Test of responsiveness

The Bidder shall have to submit all the requisite documents as per various formats provided in Annexures of this RFP. These documents will be examined w.r.t

completeness in this stage. The following documents are required to be submitted by the bidders :-

- Bid Security
- Bid form
- Power of Attorney (To be submitted only in case of any change in the one submitted during empanelment vide RFE issued by IHMCL dated **28-10-2021**)
- Undertaking (To be submitted only in case of any change in the one submitted during empanelment vide RFE issued by IHMCL dated **28-10-2021**))

A bid shall be considered Responsive only if:

- Requisite documents are received as per the format provided under this RFP;
- Bid contains all the information as required (i.e., complete in all respects);
- Bid does not contain any condition or qualification.
- it is not non-responsive in terms hereof

If any documents are not submitted or not submitted in prescribed format, then the bids shall be summarily rejected.

IHMCL reserves the right to reject any bid which is non-responsive and no request for alteration, modification, substitution, or withdrawal shall be entertained by IHMCL in respect thereof. Any non-responsive bid shall not be considered for financial evaluation.

IHMCL reserves the right not to proceed with the Bidding Process at any time without notice or liability and to reject any or all Application(s) without assigning any reasons.

ii. Stage-2:- Financial Bids evaluation

The Financial Bids of only those Bidders who are declared as Responsive in Stage 1 above will be opened and evaluated.

The Financial Bid Evaluation will be based on the "Total Bid Price" quoted by the bidder which would be the total payouts inclusive of all levies and taxes like Excise

Duty, Custom Duty, packing, forwarding, freight and insurance, Octroi/Entry Tax, etc. or as applicable taxes, but exclusive of GST.

If any Bidder quotes NIL charges / consideration, the bid shall be treated as unresponsive and will not be considered.

If there is a discrepancy between the Quarterly Price & the Total Bid Price for O& M services, the Quarterly price shall prevail and IHMCL shall correct the Total Bid Price for O& M charges.

The Evaluation Committee shall determine if the financial bid is complete and without computational errors. The Bid with the lowest price will be selected.

4.13 Imbalanced Bid

Further, in case where the Bid of the successful bidder is less than 85% of the average of all bids received, the Successful Bidder shall have to submit an Additional Performance Security (APS) in the form of a Bank Guarantee for 3% of Contract value. The other requirements of Additional Performance Security (APS) are the same as those of Performance Security. IHMCL may also require the bidder to produce detailed price analysis for all items of the bill of quantity, to demonstrate the internal consistency of the proposed system.

4.14 Process To Be Confidential

Information relating to the examination, clarification, evaluation, and comparison of Bids and recommendations for the award of a Contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the Successful Bidder has been announced. Any attempt by a Bidder to influence IHMCL's processing of Bids or award decisions may result in the rejection of his Bid.

4.15 Award Criteria

IHMCL will award the Contract to the Bidder whose Bid has been determined to be responsive in terms of this RFP and the Bid price has been found to be lowest inclusive of all levies and taxes like Excise Duty, Custom Duty, packing, forwarding, freight and insurance, Octroi/Entry Tax, etc. or as applicable taxes, but exclusive of GST.

4.16 IHMCL'S Right to Reject Any or All Bids

Notwithstanding anything contained herein, IHMCL reserves the right to reject any Bid, and to annul the bidding process and reject all Bids at any time before signing of Contract Agreement, without thereby incurring any liability to the affected Bidder(s) or any obligation to inform the affected Bidder(s) of the grounds for such decision.

4.17 Notification Of Award of Contract

- a) Prior to the expiration of the Bid validity, IHMCL will notify the Successful Bidder that his Bid has been accepted. IHMCL will mention the contract value in the LOA. IHMCL will issue notice to commence the work after issuance of LOA.
- b) The Contract will incorporate all agreements between IHMCL and the Successful Bidder. It will be signed by IHMCL and the Successful Bidder after the performance security is furnished by the Successful Bidder.
- c) Upon furnishing of the Performance Security by the Successful Bidder, IHMCL will promptly notify the other Bidders that their Bids have been unsuccessful.

4.18 Confidentiality

- a) The Bidder shall keep confidential any information related to this tender with the same degree of care as it would treat its own confidential information. The Bidders shall note that the confidential information will be used only for the purposes of this tender and shall not be disclosed to any third party for any reason whatsoever.
- b) Information relating to the examination, clarification, evaluation and recommendation for the Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising IHMCL in relation to, or matters arising out of, or concerning the bidding process. IHMCL will treat all information, submitted as part of the Bid, in confidence and will require all those who have access to such material to treat the same in confidence. IHMCL may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or as may be required by law or in connection with any legal process or such information which would be available in public domain.
- c) At all times during the performance of the Services, the Bidder shall abide by all applicable IHMCL, NHAI/ MoRTH's security rules, policies, standards, guidelines and procedures. The Bidder should note that before any of its employees or assignees is given access to the Confidential Information, each such employee and assignees shall agree to be bound by the term of this tender.

- d) The Successful Bidder should not disclose to any other party and keep confidential the terms and conditions of this Contract, any amendment hereof, and any Attachment or Annexure hereof.
- e) The obligations of confidentiality under this section shall survive termination of the Contract.
- f) Bidders shall not be under a declaration of ineligibility or blacklisting for corrupt and fraudulent practices by the Central Government, the State Government or any public undertaking, autonomous body, authority by whatever name called under the Central or the State Government.

4.19 Signing of Contract

IHMCL shall intimate the Successful Bidder for signing of Contract Agreement upon submission of Performance Security as per schedule defined in RFP.

4.20 Performance Security

- a) Within 07 (Seven) days of the receipt of the Letter of Award, the Successful Bidder shall submit a Performance Security amount in form of Demand Draft or an irrevocable and unconditional Bank guarantee issued in the name of IHMCL for an amount equal to **3% of the Total Bid Price** (value of awarded work), issued by a Bank described under this RFP which shall be verified at any branch located in the National Capital territory of Delhi and through SFMS mode as performance security for the due performance of its obligations under the Contract.
- b) The aforesaid Bank Guarantee shall be as per the format given in format provided in this RFP and will be valid for a period of 180 days after the expiry of Contract period and shall also have a minimum claim period of 1 year.
- c) In case of Contract Period extension after 02 years of Contract Signing, successful bidder shall furnish the extended PBG.

4.21 Bank Guarantee (BG)

- a) The Bank Guarantee in the name of IHMCL issued by the following banks would only be accepted:
 - i. Any Nationalized Bank
 - ii. Any Scheduled Commercial Bank approved by RBI having a net worth of not less than Rs. 500 crores as per the latest Audited Balance Sheet of the Bank. In the case of a

- Foreign Bank (issued by a branch in India), the net worth in respect of the Indian operations shall only be taken into account
- iii. A Foreign Bank (issued by a branch outside India) with a counter guarantee from any Indian Nationalized Bank.
 - iv. Export Import Bank of India
- b) The acceptance of the Bank Guarantees shall also be subject to the following conditions: -
- i. The capital adequacy of the Bank shall not be less than the norms prescribed by RBI
 - ii. The bank guarantee issued by a Cooperative Bank shall not be accepted.

4.22 Corrupt Or Fraudulent Practices

IHMCL will reject a proposal for award and appropriate the Performance Security, as the case may be, if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question.

IHMCL will declare the Bidder ineligible, either indefinitely or for a stated period of time, to be awarded a contract by IHMCL if it at any time determines that the Bidder has engaged in corrupt or fraudulent practices in competing for the contract, or during execution.

“Corrupt practice” means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official or employee of IHMCL in the procurement process or in Contract execution.

“Fraudulent Practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of IHMCL and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid process at artificial non- competitive levels and to deprive IHMCL of the benefits of free and open competition.

4.23 Miscellaneous

- a) The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at New Delhi shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process.
- b) IHMCL, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to
 - i. suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;

- ii. consult with any Bidder in order to receive clarification or further information;
 - iii. retain any information and/ or evidence submitted to IHMCL by, on behalf of, and/ or in relation to any Bidder; and/ or
 - iv. independently verify, disqualify, reject and/ or accept any or all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.
- c) It shall be deemed that by submitting the Bid, the Bidder agrees and releases IHMCL, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder, pursuant hereto and/ or in connection with the Bidding Process and waives, to the fullest extent permitted by applicable laws, any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or in future.
- d) If the Bidder has committed a transgression under this RFP such as to put its reliability or credibility into question, IHMCL shall be entitled to blacklist and debar such Bidder for any future tenders/contract award process in its sole and absolute discretion.

4.24 Site visit and verification of information

- a) Applicants are encouraged to submit their respective Bid/Applications after visiting the Project site and ascertaining for themselves the site/fee plaza conditions, traffic, location, surroundings, climate, availability of power, water and other utilities for construction, access to site, handling and storage of materials, weather data, applicable laws and regulations, and any other matter considered relevant by them. The costs of visiting the site or sites shall be at the Bidder's own expense.
- b) The Bidder shall be deemed to have examined the site or sites and obtain for itself, at its own responsibility and risk, all information that may be necessary for preparing the bid and entering into the Contract.
- c) Any bidder interested in carrying out a site visit may write to IHMCL. On receipt of request, IHMCL shall issue an Authorization letter for site visit to such bidder.

4.25 Number of Applications and costs thereof

- a) No Applicant shall submit more than one Application for the Project. An applicant applying individually or as a member of a Consortium shall not be entitled to submit another application either individually or as a member of any Consortium, as the case may be.

- b) The Applicants shall be responsible for all of the costs associated with the preparation of their Applications and their participation in the Bid Process. IHMCL will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding Process.

PART-V: PREPARATION AND SUBMISSION OF APPLICATION

- 5.1** Bid must be submitted online only at <https://etenders.gov.in> during the validity of registration with the e-Tender Portal being managed by National Informatics Centre (NIC), i.e. <https://etenders.gov.in>. To participate in e-tender, the intending participants shall register themselves in the website of URL.
- 5.2** Bidders/Applicants are advised to go through the FAQs, guidelines, instructions, manuals, policies, system setting procedures etc. as provided in the e-Procurement portal.
- 5.3** Tender form and relevant documents will not be sold /issued manually from offices.
- 5.4** Bidders are required to upload scanned copies of proof of Bid Security submission, Bid Form, Power of Attorney (In case of re-submission), Undertaking (In case of re-submission) and other relevant document on the e-Tender portal.
- 5.5** The date and time for online submission as mentioned in the section RFP document shall be strictly followed in all cases. The bidder/Applicants should ensure that their tender is submitted online before the expiry of the scheduled date and time. No delay on account of any cause will be entertained. Tender(s) not submitted online will not be entertained.
- 5.6** If for any reason, any interested bidder fails to complete any online stages during the complete tender cycle, IHMCL shall not be responsible for that and any grievance regarding that shall not be entertained.

PART VI- TERMS OF REFERENCE

6.1 Scope of Work

The scope of work as specified in Clause 05 of RFE Tender No. IHMCL/ETC/Empanelment/2021/01, dated 28-10-2021 shall remain same. However, following additional activities are added under the scope of Service Provider: -

- a) Service Provider shall take over all **Available**¹ ETC equipment on As-Is basis at the allocated toll plazas and carryout proactive and reactive maintenance, repair and replacement of defective components (IT and Non-IT/ Hardware, UPS with Batteries, Software etc.), or replacement as required to maintain the SLAs in the RFP throughout the Contract Period. The cost for repair and replacement of existing ETC equipment shall be borne by the Service Provider and shall be deemed to be factored in the quoted value by the Service Provider. The list of existing ETC equipment at the fee plazas is as per Annexure-2.
- b) The equipment which are **Not-Available**² at the fee plazas shall be supplied, installed, and commissioned by Service Provider as per recent L1 rates discovered by IHMCL mentioned in Annexure-3.
- c) Any replacement/new supply of equipment by Service Provider shall be as per equipment Specification mentioned in this RFP and RFE Tender No. IHMCL/ETC/Empanelment/2021/01, dated 28-10-2021.
- d) Service Provider shall ensure to start Operation & Maintenance of ETC system at fee plazas with their own ETC software within 30 days from signing of Contract Agreement/commencement instruction given by IHMCL which includes repair/replacement of existing faulty/damaged equipment and provision for additional equipment which are not available at the fee plazas. The Operation & Maintenance services shall not be considered as started unless all ETC equipment (as mentioned in Annexure-2) are found to be functional after takeover of fee plaza. The List of toll plazas is as per Annexure-1.
- e) The O&M services shall be considered as started from the date when following processes are completed at the fee plaza: -
 - Smooth roll over of ETC system at Fee Plaza (confirmation from Acquirer Banks/NPCI required)

¹ Available – Shall mean that equipment/software which are pre-existing at the toll plaza as per status of equipment provided in this RFP-Annexure-2. This equipment/software may be in functional/faulty/damage condition.

² Not-Available – Shall mean that equipment/software which are not currently installed/present at the toll plaza as per status of equipment provided in this RFP-Annexure-2

- Repair/replacement of all faulty/damaged equipment (refer Annexure-2) as handed over by previous System integrator (To be verified by IHMCL/representative from PIU)
- Installation & commission work of additional equipment which are not available at the fee plazas as per status mentioned in Annexure-2(To be verified by IHMCL/representative from PIU)
- Conversion of lanes into Swift flow lanes as and where applicable.

Upon completion of above-mentioned processes, Service Provider shall notify IHMCL to verify the same. Upon Verification if all equipment are found to be functional, IHMCL shall consider the O&M start date as of notification received from Service Provider. The O&M services shall not be treated as started unless above mentioned processes are completed and informed by Service Provider.

- f) Service Provider shall ensure to keep a proper inventory of the ETC infrastructure installed at fee plazas throughout the Contract period.
- g) Post Hand Over Take Over process of ETC system at Fee plazas, the service provider shall be fully responsible for the safety of ETC equipment. Any equipment gets non-functional after certification due to any reason whatsoever, excluding scenarios covered under Force Majeure then Successful bidder shall replace/repair as per SLA. The Service Provider should keep spare items of critical ETC equipment such as RFID Reader, Boom Barrier, AVCC system, etc. for quicker turnaround time
- h) Ongoing maintenance, repair and replacement of all hardware, software, peripherals and sub-components of all BOQ items shall be the responsibility of Service Provider without any financial implication to IHMCL. Any ETC hardware item shall be replaced within SLA period as defined.
- i) The Service Provider shall provide minimum 03 Site Engineers (03 shifts) at each fee plazas to ensure 24*7 onsite support. The site engineer shall be at least Graduate or Diploma in Engineering, preferably in Electrical/Electronic/IT/Computer Science or equivalent. Service Provider shall submit the CV and qualification documents of Site Engineers such as Graduation Degree/ Diploma Certificate with IHMCL prior to deployment at toll plaza. Service Provider shall provide the Site Engineer contact details such as Name, Contact No. etc.
- j) Service Provider shall ensure to comply to all applicable statutory requirements such as minimum wages, EPF, ESI etc. for the site engineers deployed at fee plazas. Service Provider shall submit the necessary proof/supporting evidence as and when sought by

- IHMCL. Service Provider shall indemnify IHMCL/NHAI in case of any claim or grievance raised by these site engineers.
- k) The Service Provider shall adhere to the maintenance of ETC & TMS Equipment, Periodic Preventive Maintenance of equipment, Timely Corrective Maintenance, Software Maintenance, Remote Software support for the ETC & Toll System.
 - l) Service Provider shall ensure to integrate all existing ETC equipment of the fee plazas. Any requirement to integrate existing ETC equipment like arrangement of protocol, Integration software etc. shall be the responsibility of Service Provider.
 - m) Service Provider shall be responsible for repair/ replacement of equipment at its own cost which get faulty due to reasons like Short Circuit, Thundering/Lightening and Voltage Fluctuation throughout the Contract Period to maintain the SLA. Service Provider shall take all preventive measures to upkeep the equipment.
 - n) Service Provider shall be responsible for providing Pest Control services at the toll plaza to prevent equipment for getting faulty. Service Provider shall be responsible for repair/ replacement of equipment within the defined SLA which have got faulty due to cable/equipment damaged by Rodent. The cost of the same is the part of O&M Price of the plaza.
 - o) The Service Provider shall take prior approval from respective PIU/IHMCL before updating any version of Lane / Plaza application, for which, a software modification request shall be submitted to PIU/ IHMCL for seeking approval.
 - p) The Service Provider shall take adequate measures to protect ETC system from any Malware/Ransomware attack at fee plazas.
 - q) The Service Provider shall ensure to upkeep the existing equipment and newly delivered equipment throughout the Contract period. Any equipment which gets damaged/faulty due to any reason except case of force majeure should be repaired/replaced by service provider on immediate basis in order to maintain the SLA defined in the RFP.
 - r) The Service Provider shall be responsible for implementation of ICD 2.5 at all allocated toll plazas which includes provision of all certificates like SSL, firewall etc. The Service Provider shall ensure to complete the ICD 2.5 implementation work within 10 days from takeover of fee plazas for providing O&M services.
 - s) Service Provider shall ensure to maintain and provide (02) internet services with static IP addresses, ensuring a minimum bandwidth equivalent to 05 Mbps per lane throughout the entire Contract period. For e.g. a plaza with 10 lanes shall have the minimum internet bandwidth of 50 Mbps. The primary purpose of these internet services is to facilitate the

sharing/receiving the ETC system data with entities such as the acquirer bank, TMCC vendor etc. Additionally, the same internet services will be utilized to transmit live feeds from cameras, including PTZ camera, Lane Camera, Plaza Camera, etc., to the Command Control Centre established by NHAI/IHMCL. Service Provider must include the recurring costs associated with the provision of internet services in the overall cost of O&M services, as quoted in the tender, for the duration of the Contract. Furthermore, as part of the contingency plan, the Service Provider is obligated to ensure internet connectivity through a dongle device as a backup mechanism, without imposing any additional costs on IHMCL.

- t) Service Provider shall provide full support in plaza handover to new Service Provider as and when in future engaged by IHMCL at the allocated toll plazas during the O&M period. The Service Provider shall be involved in transition process till toll plaza take over by new Service Provider.
- u) Service Provider shall ensure to keep the image backup captured through LPIC and ICS camera for a period of minimum 06 months. In case of insufficient space in the server, the Service Provider shall provide an external media device to keep the image backup for a period of minimum 06 months. The Service Provider shall factor the cost of external media device into the originally quoted O&M amount. IHMCL will not make any additional payments for the same.
- v) The successful bidder shall assist and extend required support, at no additional cost to IHMCL, in integration or migration to the Unified tolling software (Centralized TMS) as mandated by IHMCL from time to time.
- w) Service Provider shall be responsible for taking a complete backup of the database from the previous System Integrator and storing all fields of data in their system application. This activity shall be carried out in coordination with the previous System Integrator. The old data shall be generated through software application as provisioned by Service Provider. Whenever there is a need to share the old data with IHMCL/PIU, the Service Provider must ensure its timely provision.
- x) Service Provider shall be responsible for conducting audits of manually processed FASTag transactions before forwarding them to the Acquirer bank. These audits will rely on image evidence obtained through License Plate Image Capture Cameras/AVCC data. The Service Provider must ensure that all manually processed transactions are sent only after a comprehensive audit has been performed. The audit for each manual transaction should be completed within 24 hrs of transaction generation. Daily report of manual transaction shall be shared with IHMCL.

- y) Service Provider shall strictly ensure for the uninterrupted operation of ETC equipment at their respective fee plazas, with strict adherence to the SLA parameters outlined in the RFP. In the event of non-compliance, penalties, as specified in the Contract Agreement, shall be imposed based on data recorded in the TMCC software. To prevent the imposition of penalties, System Integrators shall ensure the continuous functionality of the ETC system, TMCC software and allied devices at the respective fee plazas, as provided by the TMCC vendor. Any disruptions or downtime in the TMCC software or devices must be promptly addressed by the representatives of the System Integrators deployed at the fee plazas. If any downtime reported in TMCC software is determined to be non-existent based on evidence submitted by the Service Provider, IHMCL shall conduct further scrutiny of such cases to ascertain the actual downtime that should be considered. The Penalty amount shall be imposed only on the actual downtime.
- z) System Integrators shall ensure that the Automatic Vehicle Counter cum Classifier (AVCC) system at all respective fee plazas should accurately count and classify the vehicles crossing from the lanes. The AVC accuracy should comply with the SLA parameters defined in the RFP. Necessary measures to achieve the desired accuracy level should be ensured by the System Integrator in close coordination with the respective toll operating agencies. In case of any non-compliance, applicable penalties shall be imposed in accordance with the RFP.
- aa) Service Provider shall ensure to keep the video backup in NVR connected to LPIC Cameras, ICS cameras, Booth Cameras and Plaza Building Cameras for a minimum period of 30 days. Any arrangements/augmentation to be made in the existing NVR shall have to be made by the Service Provider at its own cost.
- bb) Service Provider shall be responsible for taking a complete backup of the database from the previous System Integrator and storing all fields of data in their system application. This activity shall be carried out in coordination with the previous System Integrator. The provision shall be implemented in a manner that the retrieval of old data (previous System Integrator) through the Service Provider's software application. Whenever there is a need to share the old data with IHMCL/PIU, the Service Provider must ensure its timely provision.
- cc) Service Provider shall ensure to provide an Automatic Number Plate Recognition (ANPR) system or software in each lane. This ANPR system/software should be specifically designed to utilize & employ existing License Plate Image Capture Cameras, utilizing optical character recognition (OCR) technology and other advanced image processing techniques for the effective interpretation and extraction of information from

vehicle registration plates. Subsequently, the captured images undergo processing through the ANPR system. Through the strategic integration of these technologies, the service provider aims to achieve the seamless automatic extraction of vehicle registration numbers, thereby significantly enhancing the efficiency and accuracy of the entire system. The lane application shall be enabled to provide real-time vehicle registration numbers based on OCR technology for each passing vehicle. In instances involving cash transactions, the Toll Collector (TC) shall automatically receive the Vehicle Registration Number via the Lane application. The ANPR system is required to exhibit a count accuracy of 99.50% for all types of vehicles. Moreover, the ANPR system should demonstrate recognition accuracy exceeding 95% for all High-Security Registration Plates (HSRP) and surpassing 90% for all Non-HSRP plates. In case of FASTag Transaction, ANPR system shall be used as a backup of RFID reader, if RFID reader fails to read the TAG or RFID reader is down, Lane system should have an option to fetch the FASTag details using the Vehicle Registration Number detected by ANPR System. ANPR system should have functionality to assess the confidence level for recognition of Vehicle Registration Number as per below details: -

- Confidence level - Good (100% Accuracy)
- Confidence level - Average (95% to 99.99%)
- Confidence level - Poor (<95%)

For case, where FASTag is not read through Fixed RFID reader transaction shall be processed based on VRN no. as recognized by ANPR system and Confidence level >95%.

The Service Provider shall factor the cost to provide this functionality in each lane at toll plaza into the originally quoted O&M amount. IHMCL will not make any additional payments for the same. Any wrong deduction of FASTag amount due to improper functioning of ANPR system, the same amount shall be recovered from the Service Provider from the quarterly O&M invoices.

dd) Service Provider is required to maintain a spare quantity of critical ETC equipment (Lane level) at the fee plaza, strictly adhering to the SLA parameters outlined in the RFP document. In the event of any damage/fault occurring to the equipment, regardless of the cause, the Service Provider must promptly replace the affected equipment with prior intimation to concerned PIU and IHMCL using the spare quantity. The spare quantity of critical ETC equipment should be no less than 50% of the total number of lanes at the fee plaza to ensure timely corrective actions. These critical equipment components encompass: -

- i. RFID reader
- ii. Toll Lane Controller
- iii. Automatic Vehicle Counter and Classifier system
- iv. License Plate Image Capture Camera/Automatic Number Plate Recognition Camera
- v. Automatic Barrier Gate
- vi. Lane UPS with batteries

It is important to note that the Service Provider shall factor the cost of spare equipment into the originally quoted O&M amount. IHMCL will not make any additional payments for the provision of the spare equipment.

ee) Swift Flow lanes

Service Provider shall convert existing lanes into swift flow lane concept at fee plazas with high traffic volume (details of fee plazas are provided at Annexure-5). This involves shifting RFID reader location and related activities to the current Electronic Toll Collection (ETC) system setup as per the indicative layout outlined in Annexure-6. The primary goals of these swift lanes are to facilitate uninterrupted traffic flow for active FASTag vehicles, presently validated at Payaxis, and to expedite the validation process.

i. Features:

- RFID reader will be relocated to a distance of around 10-12 meters (may be decided by Service Provider) before the payaxis. It will be mounted on a single arm pole with a minimum height of 5.5 meters.
- Vehicle Separator, equipped with IR/Laser sensors, will be installed approximately 2 meters ahead of the RFID reader pole. This setup is crucial for vehicle detection, separation, and identifying vehicle directions to streamline toll operations rapidly. Any necessity for loop installation near the vehicle separator is at the sole discretion of the Service Provider.
- A presence loop shall be installed near pay axis area to trigger LPIC/ANPR camera.
- Ensuring effective vehicle detection and separation, particularly in tailgating scenarios, with a minimum distance of 10 cm or more.

ii. Objective

The primary objective of implementing the swift flow lane is to enhance the traffic throughput within that specific lane. To achieve this, the automatic barrier gate in the swift flow lane shall remain open in normal condition to allow continuous movement

of vehicles affixed with active FASTag, eliminating the need to stop at the toll booth for FASTag validation.

A crucial function of this system is the automatic barrier gate, which will promptly lower whenever a vehicle with an inactive/invalid FASTag or without any FASTag attempts to enter the swift flow lane. This mechanism ensures that only vehicles with active FASTag can freely pass through without any interruption, maintaining the swift flow.

To manage the queue of vehicles and ensure seamless operations, the Vehicle Separator shall play a vital role. It is responsible for detecting, separating, and identifying vehicles within the lane. This allows for efficient queue management and helps in promptly lowering the barrier gate for vehicles without active FASTag, preventing any disruptions to the continuous flow of traffic in the swift flow lane. The combination of an open barrier for active FASTag vehicles and a closed barrier for inactive or non-FASTag vehicles, along with the assistance of the Vehicle Separator, contributes to the overall objective of enhancing traffic throughput in the designated lane.

Additionally, the Service Provider shall ensure to provide three (03) sets of six (06) transverse bar markings after the bullnose in the Swift Flow Lanes. Moreover, the Service Provider shall be responsible for placing Chevron Markings ahead of the bullnose in Swift Flow Lanes. The markings shall be carried out ensuring compliance with IRC:35 and shall be conducted every six months to uphold the integrity of the markings.

iii. Cost

Service Provider shall factor the expenses for the implementation of Swift Flow Lane at the identified fee plazas in the financial quotation for O&M services. No additional payment shall be paid to the Service Provider for this activity.

6.2 COMPENSATION

In case of any descoping of toll plaza, IHMCL shall pay the remaining capex cost of additional equipment (for equipment "Not available" at the fee plaza during take over or as per details mentioned in Annexure-2) provided by Service Provider. No compensation shall be given for unused quarterly O&M services.

6.3 PAYMENT TERMS

a) Payments will be made in Indian Rupees only.

b) Quarterly O&M Services

- i. IHMCL shall release the payment on quarterly basis for O&M services.
- ii. The Successful Bidder shall submit invoice to IHMCL on a quarterly basis in hardcopy with a forwarding letter with all supporting documents as per requirement. The invoice shall be processed only after receipt of physical copies, unless specified otherwise by IHMCL. The invoices should be submitted at IHMCL office after completion of the quarter and not later than 7th of subsequent month of the quarter.
- iii. Quarterly Payment for a toll plaza shall be derived as per formula below –

$\text{Quarterly Payments} = (A * B) - C$

Where,

- A = Quarterly rate per lane for providing O&M services of ETC system installed at toll plaza (In Rs.) as per Quoted Value submitted in the financial bid
 - B = No. of lanes at the fee plaza where O&M services of ETC system are in effect by the Bidder (at the beginning of the Quarter)
 - C = Penalty amount, or deductions, if any
- iv. IHMCL shall release the payment on a quarterly basis for O&M services.
 - v. Service Provider shall submit the following reports to claim for Quarterly O&M Service payment: -

S.No	Report Type	Duration	To be Shared with	Report Format
1	Preventive Maintenance report along with photographs	Monthly	Concerned and IHMCL PIU	PDF
2	Fault Summary Report (Duly verified by respective Toll Operating Agency) as per Format placed at Annexure-4	Monthly	Concerned and IHMCL PIU	PDF
3	Lane Wise AVC Accuracy Report (System Generated)	Monthly	Concerned and IHMCL PIU	PDF and Excel

S.No	Report Type	Duration	To be Shared with	Report Format
4	Attendance Record of Site Engineers (Duly verified by respective Toll Operating Agency)	Monthly	Concerned and IHMCL PIU	PDF
5	Equipment Downtime Report	Monthly	Concerned and IHMCL PIU	PDF

***In absence of above-mentioned reports, Quarterly O&M Services payment shall not be released by IHMCL. Monthly reports shall be shared by 5th date of every month for previous month and Daily report shall be shared before 14:00 Hrs of previous day.*

- vi. IHMCL shall verify SLA for Equipment uptime as per TMCC software, equipment downtime report shared by SI and Fault summary report. Upon verification of, Quarterly O&M services payment shall be released to the Service Provider.
- c) Additional Equipment (For equipment which are Not available at the fee plaza as per status mentioned in Annexure-2), 100 % payment shall be released upon delivery, Installation and Commissioning of equipment at site location. The work completion shall be verified by representative from concerned PIU/IHMCL. No payment shall be released for partial delivery of additional equipment.
- d) Payment may be claimed for any particular site, on achievement of above said milestones.
- e) All payments shall be made subject to adjustment of applicable penalties.
- f) All Payments will be processed within 60 days of submission of undisputed invoice.

6.4 PRICES

- a) GST as applicable, which will be levied on the goods and services invoiced by the Service Provider to IHMCL, will be reimbursed on actual basis.
- b) IHMCL reserves the right to ask the Service Provider to submit proof of payment against any of the taxes, duties, levies indicated.
- c) All payments shall be made subject to adjustment of applicable damages.
- d) No amount or cost shall be payable for holding discussion, as considered necessary by IHMCL, for any purpose with IHMCL's Officials at IHMCL's Head Office or elsewhere, prior, during or after the conduct of an assignment.

Prices quoted by the bidder shall be excluding GST and fixed for the entire Contract period.

6.5 ASSIGNMENT TIMELINES

The Service Provider shall ensure to start the Operation & Maintenance activity (Software and Hardware) within 30 days from date of signing of Contract Agreement/commencement instruction given by IHMCL at all allocated toll plazas which includes Software Migration in all lanes, repair/replacement of existing faulty/damaged equipment, completion of installation & commissioning work of additional equipment which are not available at the fee plazas as per Annexure-2 and conversion of existing lanes into Swift Flow Lane as and where applicable.

6.6 SERVICE LEVEL AGREEMENTS(SLA)

The SLA, as originally outlined in Clause 5.7 of RFE Tender No. IHMCL/ETC/Empanelment/2021/01, dated 28-10-2021, shall remain unchanged, with modifications to some existing SLA parameters and the inclusion of new SLA parameters as defined below: -

6.6.1 Plaza Building Equipment

- a) The uptime availability of all Critical equipment of Plaza Building shall be 99% per lane per month. The permissible downtime for all critical Equipment shall be 7 hours per critical plaza equipment per month.
- b) The downtime shall be calculated at a cumulative level when any of the critical plaza equipment as mentioned below is non-operational for that specific lane:
 - i. ETC Server including Software
 - ii. Network Video Recorder
 - iii. Master Intercom
 - iv. 24 Port Network Switch
 - v. Plaza UPS
 - vi. All Lanes communication down with ETC server
- c) Scheduled downtime is defined as a period of time when the system will remain unavailable for conducting necessary preventive maintenance, urgent repairs, etc. The maximum scheduled downtime for any Site shall be 4 hours per month for plaza system.

- d) For all other equipment of the plaza building, the uptime availability shall be 98% per lane per month.
- e) The formula for the calculation of plaza building system availability shall be as follows:
System Uptime = $[1 - \{A/(B - C)\} * 100]$, where
A = Time for which system is down per month basis scenarios in Hrs
B = Total time in a month
C = Scheduled downtime and Permissible downtime basis section 6.6.1(a) & (c)
- f) The Service Provider shall maintain adequate inventory/spares to ensure the service levels prescribed in clause 6.6.1(a) & (d) are adhered.
- g) For non-adherence to service levels as defined in clause 6.6.1 (a) & (d), the penalty for deficiency of services shall be imposed as follows:-
- Upto 1 hr - 1% of the monthly O&M charges per plaza
 - >1 hr to ≤ 2 hrs - 2% of the monthly O&M charges per plaza
 - >2 hrs to ≤ 3 hrs - 3% of the monthly O&M charges per plaza
 - >3 hrs to ≤ 5 hrs - 5% of the monthly O&M charges per plaza
 - >5 hrs to ≤ 10 hrs - 10% of the monthly O&M charges per plaza
 - >10 hrs to ≤ 20 hrs - 25% of the monthly O&M charges per plaza
 - >20 hrs - 50% of the monthly O&M charges per plaza

6.6.2 Lane System

- a) The uptime availability of all Critical equipment of ETC system shall be 99% per lane per month. The permissible downtime for all critical Equipment shall be 7 hours per lane per month.
- b) The downtime for a toll lane shall be calculated cumulatively when any of the critical equipment, as mentioned below, is non-operational for that specific lane:
- RFID Reader
 - Toll Lane Controller System
 - Automatic Vehicles Classification Controller and Sensor
 - Automatic Barrier Gate
 - License Plate Image Capture Camera
 - Incident Capture Camera
 - Lane Application
- c) For all other lane equipment, the uptime availability shall be 98% per lane per month.

- d) Scheduled downtime is defined as a period of time when the system will remain unavailable for conducting necessary preventive maintenance, urgent repairs, etc. The maximum scheduled downtime for any site shall be 4 hours per lane per month.
- e) The formula for the calculation of plaza building system availability shall be as follows:
System Uptime = $[1 - \{A/(B - C)\} * 100]$, where
A = Time for which system is down per month basis scenarios
B = Total time in a month
C = Scheduled downtime and Permissible downtime basis section 6.6.2(a) & (d)
- f) The Service Provider shall maintain adequate inventory/spares to ensure the service levels prescribed in clause 6.6.2(a) & (c) are adhered.
- g) For non-adherence to service levels as defined in clause 6.6.2 (a) & (d), the penalty for deficiency of services shall be imposed as follows:-
- Upto 1 hr - 5% of the monthly O&M charges per lane
 - >1 hr to <=2 hrs - 10% of the monthly O&M charges per lane
 - >2 hrs to <=5 hrs - 15% of the monthly O&M charges per lane
 - >5 hrs to <=10 hrs - 25% of the monthly O&M charges per lane
 - >10 hrs to <=24 hrs - 50% of the monthly O&M charges per lane
 - Greater than 24 hrs - No monthly O&M charges shall be paid for that lane

6.6.3 Others

a) Delay in Takeover of Fee Plaza: -

The Service Provider shall start operation and maintenance of ETC system at all allocated toll plazas within 30 days from date of Contract Signing/commencement instruction given by IHMCL including repair/replacement of faulty/damaged existing equipment (incl. Sub-equipment & Consumables) and installation, commissioning & integration of additional equipment which are not available at the fee plaza as per Annexure-2.

Failure of the Service Provider to complete the above work within 30 days shall attract a penalty as below:-

- Up to 10 days of delay - Rs 1,000/- for each day of delay (per fee plaza)
- After 10 days of delay – Rs. 2,000/ for each day of delay (per fee plaza)

The total levied penalty for this SLA, however, shall not exceed Rs 5,00,000/- for each toll plaza.

b) Functioning of Fee plaza with ICD 2.5 specification or latest: -

The Service Provider shall ensure to comply with ICD 2.5 specification document or latest for processing the transactions to respective Acquirer Bank at all allocated fee plazas. Failure of the Service Provider to comply with ICD 2.5 specification or latest at any allocated fee plaza, following penalty shall be imposed:-

- Up to 05 days - Rs 1,000/- for each day (per fee plaza)
- After 05 days of delay – Rs. 2,000/ for each day (per fee plaza)

The total levied penalty for this SLA, however, shall not exceed Rs 30,000/- for each toll plaza per month.

c) Traffic throughput enhancement in swift flow lane

Service Provider shall comply with the enhancement of traffic throughput in swift flow lanes. The goal is to significantly increase traffic throughput post-implementation of the Swift flow concept, ensuring proper management of the queue/sequence of vehicles passing through the designated lanes.

- Traffic throughput less than or equal to 10% of the average daily traffic, no monthly Operation and Maintenance (O&M) charges shall be payable for that specific lane.
- Traffic throughput more than 10% but less than 25% of the average daily traffic, 50% of the O&M charges shall be paid for that lane.
- Traffic throughput equal to or greater than 25% of the average daily traffic, 100% payment shall be released for that lane.

Note:

The traffic throughput analysis shall be calculated on monthly basis based on the FASTag traffic data of last month's in the particular lane when the swift flow concept was not implemented. Any loss of revenue to the toll operating agency due to mismanagement/missing of data, incorrect deduction of FASTag amounts, passing of any inactive vehicle, etc., from the swift flow lane shall be recovered from the payment of quarterly O&M services.

6.7 Hardware Specification

The equipment specification as specified in Clause-7 of RFE Tender No. IHMCL/ETC/Empanelment/2021/01, dated 28.10.2021. The specifications for Automatic Number Plate Capture Camera and Lane Monitoring Camera are as below:-

a) Automatic Number Plate Recognition (ANPR) Camera

- i. ANPR Cameras shall be installed in each lane to detect and recognize the Vehicle Registration Number (VRN) and classification of each passing vehicle.
- ii. ANPR Cameras should also be capable to detect and recognize the vehicle classification of each passing vehicle with accuracy more than 95%.
- iii. The Lane computer should have an active integration with ANPR camera system to get the live Vehicle Registration number of each passing vehicle.
- iv. In case of Cash transaction, TC should get the Vehicle Registration Number automatically in Lane application through ANPR Camera.
- v. In cash of FASTag Transaction, ANPR camera shall be used as a backup of RFID reader, if RFID reader fails to read the TAG or RFID reader is down, Lane system should have an option to fetch the FASTag details using the Vehicle Registration Number detected by ANPR System.
- vi. ANPR Recognition system shall have count accuracy of 99.50% for all types of vehicles.
- vii. ANPR Recognition Accuracy shall be > 98% for all HSRP Plates and > 90% for all Non-HSRP plates.
- viii. ANPR engine should provide the class of each vehicle and it should be able to filter out the Non-tollable vehicles like Tractor, Two-wheeler, and Three-wheelers.
- ix. ANPR Camera should have the following minimum specifications:
 - A camera of 4 MP at 25 FPS shall be provided. The IP camera shall be POE powered bullet type with inbuild IR of 100 meters with illumination at 0.1 lux for colour image and black & white at 0 lux with IR.
 - The lens shall be of 5-50 mm motorized varifocal with true WDR (120 dB), 3D DNR, BLC, HLC, AGC and triple simultaneous streaming.
 - The Camera shall have inbuild SD card slot and shall be provided with at least 128 GB class 10 SD card. The shutter speed of the camera shall be 1/3 second to 1/100000 seconds for capturing the motion detection even during low light condition and provide proper image. The housing shall be IP 67 &

NEMA-4X rated with IK10 protection against vandalism. The camera shall support one alarm I/O port and audio I/O.

- The camera shall also detect any object addition, object removal, and lane crossing. e. Whenever any event is triggered, the camera shall record the event on SD card. f. ONVIF (S, G & T) Supports. Compression: H.264, H.265 & MJPEG
 - The Camera shall have applicable CE, UL, and IEC 62368-1 certifications.
- x. The ANPR Camera should have functionality to address the Alpha numerical character of irregular font sizes.
- xi. The night vision should not affect the accuracy.
- xii. In case of Non-FASTag transaction and ANPR Camera is unable to read/recognize the number plate, the system shall create an incident and send an alert to the Lane Application.
- xiii. ANPR Camera should have functionality to assess the confidence level for recognition of Vehicle Registration Number and share the same to the lane application as per below details: -
- Confidence level - Good (100% Accuracy)
 - Confidence level - Average (95% to 99.99%)
 - Confidence level - Poor (<95%)

For case, where FASTag is not read through Fixed RFID reader, transaction shall be processed based on VRN no. as recognized by ANPR camera and Confidence level >95%.

- b) **Lane Monitoring Camera/Incident Capture Camera System** (Specification shall remain same as provided in the RFE Tender No. IHMCL/ETC/Empanelment/2021/01, dated 28.10.2021).

6.8 RIGHT TO AMEND PROJECT SCOPE

IHMCL retains the right to amend the list of Toll Plazas provided in Annexure-1 upto 20%(Increase/Decrease) without assigning any reason at any time during the Contract Period. IHMCL makes no commitments, express or implied, that the full scope of work as described in this RFP will be commissioned.

PART VII- CONDITIONS OF CONTRACT

7.1 CONDITIONS OF CONTRACT

These Conditions shall supplement or amend the other parts of the Bidding Documents and whenever there is a conflict; provision herein shall prevail over those in the other parts of the Bidding Documents.

7.2 GOVERNING LANGUAGE

All correspondence and other documents to be exchanged by the parties shall be written in the English language. The version written in English language shall govern its interpretation.

7.3 APPLICABLE LAW

Appropriate laws as in force in Republic of India shall apply.

7.4 INTERPRETATION

In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined.

The Bidders are expected to examine all terms and instructions included in the RFP Document. During preparation of the technical proposal, the bidders shall make their own assessment of staff to undertake the assignment.

7.5 CONTRACT PERIOD

The initial period of engagement shall be 02 years from date of signing of Contract Agreement. The period of engagement may be further extendable by additional 1 year at the sole discretion of NHAI/IHMCL.

7.6 INSURANCE

The Service Provider shall effect and maintain the insurance of ETC system at its own cost, during the Contract period, such insurances for such maximum sums as may be required under the Applicable Laws, and such insurances as may be necessary or prudent in accordance with Good Industry Practice to cover third party claims, theft, accidental damage, vandalism, fire, flood, and Force Majeure events. The insurance

document shall be submitted after the completion of implementation work at each toll plaza.

7.7 FORCE MAJEURE

- a) Neither party shall be responsible to the other for any delay or failure in performance of its obligations due to any occurrence of a Force Majeure event 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 labour disputes, insurrections, civil commotion, war, enemy actions.
- b) If a Force Majeure arises, the Service Provider shall promptly notify IHMCL in writing of such condition and the cause thereof. Unless otherwise directed by IHMCL, the Service Provider 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 Parties shall be excused from performance of their respective obligations in whole or part as long as such Force Majeure event continues to prevent or delay such performance by the Parties. However, in case such Force Majeure event lasts for a continuous period of 60 days, either Party may terminate the Contract.

7.8 INDEMNIFICATION

- a) The Service Provider shall indemnify, defend, save and hold harmless, IHMCL, NHA and MoRTH and their officers, servants, agents (hereinafter referred to as the "IHMCL Indemnified Persons") against any direct loss, damage, claims, cost and expense of whatever kind and nature (including without limitation, legal fees, claims and expenses incurred in connection with any suit, action or proceeding or any claim asserted, as such fees and expenses are incurred), joint or several, that arise out of or are based upon any order passed by any statutory authority including Courts, tribunals or other judicial/quasi judicial authorities, on account of breach of the Service Provider's obligations under this Contract or any other related agreement or otherwise, any fraud or negligence attributable to the Service Provider or its Agents under contract or tort or on any other ground whatsoever, all eventualities of theft, dacoity, robbery, etc., except to the extent that any such suits, proceedings, actions, demands and claims has arisen due to any breach or default of this Contract on the part of IHMCL Indemnified Persons.

- b) The Service Provider shall indemnify IHMCL Indemnified Persons from all legal obligations in respect of professionals deployed by the Service Provider. IHMCL Indemnified Persons also stand absolved of any liability on account of death or injury sustained by the Service Provider's staff during the performance of their work and also for any damages or compensation due to any dispute between the Service Provider and its staff.
- c) In addition to the aforesaid, the Service Provider shall fully indemnify, hold harmless and defend IHMCL Indemnified Persons from and against any and all direct loss, damage, cost and expense of whatever kind and nature (including, without limitation, legal fees and other expenses incurred in connection with any suit, action or proceeding or any claim asserted, as such fees and expenses are incurred), joint or several, that arise out of, or are based upon any demands, claims, suits or proceedings arising out of claims of infringement of any domestic or foreign patent rights, copyrights or other intellectual property, proprietary or confidentiality rights with respect to any materials, information, design or process used by the Service Provider or by the Agents in performing the Service Provider's obligations or in any way incorporated in or related to this Contract. If in any such suit, action, claim or proceedings, a temporary restraint order or preliminary injunction is granted, the Service Provider shall make every reasonable effort, by giving a bond (of the type and value as required) or otherwise, to secure the revocation or suspension of the injunction or restraint order and continue to perform its obligations hereunder. If the Service Provider is unable to secure such revocation within a reasonable time, it shall, at its own expense, and without impairing the Specifications and Standards, shall rectify such defaults and shall also be liable for damages to IHMCL for the corresponding loss during the interim period on this account.
- d) The provisions of this Clause shall survive Termination.
- e) The remedies provided under this Clause are not exclusive and shall not limit any rights or remedies that may otherwise be available to IHMCL Indemnified Persons at law or in equity.

7.9 TERMINATION

- a) **ON EXPIRY OF THE CONTRACT:** Subject to the condition mentioned under Clause 7.5, the Agreement shall be deemed to have been automatically terminated on the expiry of the Contract Period unless IHMCL has exercised its option to further renew the Contract Period in accordance with the provisions, if any, of the Contract.

- b) **ON ACCOUNT OF FORCE MAJEURE:** Either party shall have the right to terminate the Contract on account of Force Majeure, as set forth in Clause 7.7.
- c) **ON BREACH OF CONTRACT:** IHMCL may terminate the Contract if the Service Provider causes a fundamental breach of the Contract. Fundamental breach of Contract includes, but shall not be limited to, the following:
 - i. The Service Provider fails to carry out any obligation under the Contract.
 - ii. The Service Provider without reasonable excuse fails to commence the work in accordance with relevant clauses.
 - iii. Repetitive complaints are received for deficiencies in ETC system services from respective PIU/NHAI without any resolution.
 - iv. Has failed to furnish the required securities or extension thereof in terms of the Contract.
 - v. the Service Provider stops work and the stoppage has not been authorized by IHMCL;
 - vi. the Service Provider at any time during the term of the Contract becomes insolvent or makes a voluntary assignment of its assets for the benefit of creditors or is adjudged bankrupt.
 - vii. If the Service Provider, in the judgment of the Employer, has engaged in the corrupt or fraudulent practice in competing for or in executing the Contract.
- d) The Service Provider sub-contracts any assignment under this Agreement without approval of IHMCL.
- e) Any other fundamental breaches as specified in the RFP.
- f) Notwithstanding the above, IHMCL at its sole discretion may terminate the Contract Agreement any time by giving 30 days prior notice without assigning any reason. No compensation shall be provided for unused O&M services. However, remaining Capex value of "Not Available" equipment as provided under Annexure-2 shall be released to the Service Provider.
- g) Upon Termination (except on account of expiry of Term of this Agreement, Force Majeure), IHMCL shall be entitled at the sole discretion to:
 - i. Appropriate the entire Performance Security or part thereof as Damages; and
 - ii. Debar/Blacklist the Service Provider from participating in any other project/assignment/work of IHMCL for a period as determined by IHMCL in its sole discretion.

7.10 ARBITRATION/ RESOLUTION OF DISPUTES

- a) Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to the Contract (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the “Dispute”) shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure set forth in Clause 7.10(d).
- b) The Parties agree to use their best efforts for resolving all Disputes arising under or in respect of the Contract promptly, equitably and in good faith, and further agree to provide each other with reasonable access during normal business hours to all non-privileged records, information and data pertaining to any Dispute.

c) Mediation

In the event of any Dispute between the Parties, either Party may call upon the Chairman in case of IHMCL or his nominee and the Managing Director/ /CEO/Director, as the case may be, in case of the Service Provider to mediate in arriving at an amicable settlement thereof. If after expiry of 30 days of receipt of the documents in relation to the Dispute or such extended period as the Parties may agree in writing, the Dispute remains unresolved, the Parties shall attempt to resolve the dispute through conciliation and/or Arbitration under the Arbitration and Conciliation Act, 1996, in accordance with the procedure specified in Clause 7.10(d) and Clause 7.10(e).

d) Conciliation

The Parties shall attempt to select one of the experts from the list of empaneled arbitrators of the Society for **Affordable** Redressal of Disputes (“SAROD”) as the Conciliator to mediate and assist the Parties in arriving at an amicable settlement thereof. If the Parties fail to agree on nominating a conciliator within 15 (fifteen) days or the Dispute is not resolved as evidenced by the signing of written terms of settlement within 60 (sixty) days of the notice in writing or such longer period as may be mutually agreed by the Parties, either Party may refer the Dispute to arbitration in accordance with the provisions of Clause 7.10(e).

e) Arbitration

Any Dispute which is not resolved amicably by conciliation, as provided in Clause 7.10(d), shall be finally settled by arbitration as set forth below:

- i. The Dispute shall be referred to the SAROD. The dispute shall be dealt with in terms of Rules of SAROD. The detailed procedure for conducting Arbitration shall be

- governed by the Rules of SAROD and provisions of Page 33 of 53 Arbitration & Conciliation Act, 1996, as amended from time to time.
- ii. The seat of Arbitration shall be New Delhi and the language for all documents and communications between the parties shall be English.
 - iii. The expenses incurred by each party in connection with the preparation, presentation, etc., of arbitral proceedings shall be borne by each party itself.
- f) The arbitrators shall make a reasoned award (the "Award").
- g) The Service Provider and IHMCL agree that an Award may be enforced against the Service Provider and/or IHMCL, as the case may be, and their respective assets wherever situated.
- h) This Agreement and the rights and obligations of the Parties shall remain in full force and effect, pending any proceedings hereunder. Further, the Parties unconditionally acknowledge and agree that notwithstanding any Dispute between them, each Party shall proceed with the performance of its respective obligations, pending resolution of Dispute in accordance with this Clause.

7.11 Appropriation of Performance Security

- a) Upon failure of the Service Provider to commence the services, for any reason whatsoever, within the period set forth in this Contract or the extended period thereunder, IHMCL shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to levy Penalty/Damages as per provision under this RFP.
- b) IHMCL shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to encash and appropriate the relevant amounts from the Performance Security as Damages or any other amounts payable to IHMCL under this Contract as and when such Damages or other amounts become due and payable. Upon such encashment and appropriation from the Performance Security, the Service Provider shall, within 10 days thereof, replenish, in case of partial appropriation, to its original level of the amount guaranteed under the Performance Security, and in case of appropriation of the entire Performance Security, provide a fresh Performance Security, as the case may be failing which IHMCL shall be entitled to terminate this Agreement in accordance with clause 7.9 hereof.

7.12 MISCELLANEOUS

a) Standard of Performance

The Service Provider shall undertake to perform the services with the highest standards of professional and ethical competence and integrity which are, amongst others, ESSENCE of this assignment. Keeping in view the sensitivity involved in such assignments, the personnel deployed should maintain confidentiality/integrity at all times and should work in a professional manner to protect the interest of IHMCL. The firm shall promptly replace any personnel deployed under this contract that IHMCL considered unsatisfactory.

b) Representations and Warranties of the Parties

The Parties represents and warrants to the each other that:

- i. It is duly organized and validly existing under the applicable laws, and has full power and authority to execute and perform its obligations under this Contract and to carry out the transactions contemplated hereby;
- ii. It has taken all necessary corporate and other actions under applicable laws to authorize the execution and delivery of this Contract and to validly exercise its rights and perform its obligations under this Contract;
- iii. This Contract constitutes its legal, valid and binding obligation, enforceable against it in accordance with the terms hereof, and its obligations under this Contract will be legally valid, binding and enforceable obligations against it in accordance with the terms hereof;
- iv. The information furnished in the Bid and as updated on or before the date of this Contract is true and accurate in all respects as on the date of this Contract;
- v. The execution, delivery and performance of this Contract will not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of the terms of its Memorandum and Articles of Association [or those of any member of the Consortium] or any Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;
- vi. There are no actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi- judicial or other authority, the outcome of which may result in the breach of this Contract or which individually or in the aggregate may result in any material impairment of its ability to perform any of its obligations under this Contract;

c) Waiver of immunity

Each Party unconditionally and irrevocably:

- i. Agrees that the execution, delivery, and performance by it of this Contract constitute commercial acts done and performed for commercial purpose;
- ii. Agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Contract or any transaction contemplated by this Contract, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the Party with respect to its assets;)
- iii. Waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and
- iv. Consents generally in respect of the enforcement of any judgment or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgment that may be made or given in connection therewith).

d) Waiver

- i. Waiver, including partial or conditional waiver, by either Party of any default by the other Party in the observance and performance of any provision of or obligations under this Contract:
 - Shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Contract;
 - Shall not be effective unless it is in writing and executed by a duly authorized representative of the Party; and
 - Shall not affect the validity or enforceability of this Contract in any manner.
- ii. Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Contract or any obligation there under nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

e) Liability for review of Documents

Except to the extent expressly provided in this Contract:

- i. no review, comment or approval by IHMCL, any document submitted by the Service Provider

- ii. nor any observation or inspection of the Services performed by the Contractor nor the failure to review, approve, comment, observe or inspect hereunder shall relieve or absolve the Contractor from its obligations, duties and liabilities under this Contract, the Applicable Laws and applicable permits; and
- iii. IHMCL shall not be liable to the Service Provider by reason of any review, comment, approval, observation or inspection referred to in Sub-clause above.

f) Exclusion of implied warranties etc.

This Contract expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the Parties or any representation by either Party not contained in a binding legal agreement executed by both Parties.

g) Survival

- i. Termination shall:
 - not relieve the Contractor or IHMCL, as the case may be, of any obligations hereunder which expressly or by implication survive Termination hereof; and
 - except as otherwise provided in any provision of this Contract expressly limiting the liability of either Party, not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of or caused by acts or omissions of such Party prior to the effectiveness of such Termination or arising out of such Termination.
- ii. All obligations surviving Termination shall only survive for a period of 3 (three) years following the date of such Termination.

h) Entire Agreement

This Contract, the RFP and the Sections hereto together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Contract are abrogated and withdrawn. For the avoidance of doubt, the Parties hereto agree that any obligations of the Contractor arising from the Request for Proposals shall be deemed to form part of this Contract and treated as such.

i) Severability

If for any reason whatever any provision of this Contract is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to the Dispute Resolution Procedure set forth under this Contract or otherwise.

j) No partnership

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 and neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

k) Third parties

This Contract is intended solely for the benefit of the Parties and their respective successors and permitted assigns and nothing in this Contract shall be construed to create any duty to, standard of care with reference to, or any liability to, any person not a Party to this Contract.

l) Successors and assigns

This Contract shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns.

m) Notices

Any notice or other communication to be given by any Party to the other Party under or in connection with the matters contemplated by this Contract shall be in writing and shall:

- i. In the case of the Contractor, be given by facsimile or e-mail and by letter delivered by hand to the address given and marked for attention of the person set out below or to such other person as the Contractor may from time to time designate by notice to IHMCL; provided that notices or other communications to be given to an address outside Delhi may, if they are subsequently confirmed by sending a copy thereof by registered acknowledgement due, air mail or by courier, be sent by facsimile or e-mail to the number as the Contractor may from time to time designate by notice to IHMCL;

- ii. In the case of IHMCL, be given by facsimile or e-mail and by letter delivered by hand and be addressed to the [•] of IHMCL with a copy delivered to the Authority Representative or such other person as IHMCL may from time to time designate by notice to the Contractor; provided that if the Contractor does not have an office in Delhi it may send such notice by facsimile or e-mail and by registered acknowledgement due, air mail or by courier; and
- iii. Any notice or communication by a Party to the other Party given in accordance herewith shall be deemed to have been delivered when in the normal course of post it ought to have been delivered and in all other cases, it shall be deemed to have been delivered on the actual date and time of delivery; provided that in the case of facsimile or e-mail, it shall be deemed to have been delivered on the working day following the date of its delivery.

n) Sub-Contracting

The Service Provider shall not sub-contract any assignment (excluding minimum civil work) to a third party. The Service Provider shall remain solely responsible for all works under this Agreement.

o) Confidentiality of the Assignment/Findings

The agency shall not, during the term of assignment and within two years after its expiration, disclose any propriety or confidential information relating to the services, this assignment or IHMCL's business or operations without prior written consent of IHMCL.

p) Modification

Modification of the terms and conditions of this Contract, including any modification of the scope of the Services, may only be made by written agreement between the Parties as the case may be, has been obtained.

q) Language

All notices required to be given by one Party to the other Party and all other communications, Documentation and proceedings which are in any way relevant to this Contract shall be in writing and in English language.

Part VIII – ANNEXURES AND FORMS

8.1 BID FORM

(In the Bidder’s Letter Head)

Date: _____

From,

To,

(Name & Address of the Bidder)

Chief Operating Officer

Dwarka
New Delhi
110 075

Indian Highways Management Co. Ltd. 1st
Floor, NHAI Building, Sector –10,

Subject: _____

Ref.: Tender No _____ Dear Sir/Madam,

After examining/reviewing the Bidding Documents for _____ etc. the receipt of which is hereby duly acknowledged, we, the undersigned, are pleased to bid to execute the whole of the Job for the item in conformity with, the said RFP Documents, including Corrigendum / Addenda Nos. _____.

We confirm that this bid is valid for a period of 180 days from the date of opening of Bid, and it shall remain binding upon us and may be accepted by any time before the expiration of that period.

If our bid is accepted, we will provide the required performance guarantee as per the tender document.

Until a final Contract is prepared and executed between us, the bid together with your written acceptance thereof in your notification of award shall constitute a binding Contract between us.

We undertake that, in competing for (and, if the award is made to us, in executing) the above Contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988" and other applicable law. We understand you are not bound to accept any Proposal you receive.

Yours sincerely,

(Signature of the Authorized signatory):

Name and Designation of the Authorized signatory: Name and Address of Bidder: Phone, Fax & E-Mail

8.2 UNDERTAKING

Bidders are required to resubmit the undertaking only if there have been changes in the statements asserted in the RFE No. IHMCL/ETC/Empanelment/2021/01, dated 28-10-2021. Bidders may refer to the same RFE for the format of the undertaking.

8.3 POWER OF ATTORNEY

Bidders are required to resubmit the Power of Attorney only if there have been changes in the statements asserted in the RFE No. IHMCL/ETC/Empanelment/2021/01, dated 28-10-2021. Bidders may refer to the same RFE for the format of the same.

8.4 FORM OF PERFORMANCE SECURITY (BANK GUARANTEE)

(In the Bidder's Letter Head)

To

Indian Highways Management Co. Ltd. 1st Floor, NHAI Building, Sector 10, Dwarka, New Delhi
110 075

WHEREAS _____

(Name and address of Contractor) (hereinafter called "the Contractor")* has undertaken, in pursuance of Contract No. ___dated__ to execute

_____ (Name of contract and brief description of works) (hereinafter called the "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee; NOW THEREOF we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor up to a total of _____(amount of Guarantee)**_____(in words) , such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____(amount of Guarantee)as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

The liability of the Bank under this Guarantee shall not be affected by any change in the constitution of the contractor or of the Bank.

Notwithstanding anything contained herein before, our liability under this guarantee is restricted to Rs. _____ (Rs. _____) and the guarantee shall remain valid till _____. Unless a claim or a demand in writing is served on us on or before _____ all our liability under this guarantee shall cease.

Signature and seal of the Guarantor _____ In presence of

Name and Designation _____ 1. _____

(Name, signature & Occupation)

Code no. of the officer(s) signing the guarantee(s) Name of the Bank _____

Address _____ 2. _____

(Name, signature & Occupation)

Date _____

Controlling Office of the Bank:

Contact Person: _____

Tel. No : _____

Note:

** An amount is to be inserted by the Guarantor, representing the percentage of the contract price specified in the Contract and denominated in Indian Rupees.

8.5 FORMAT FOR FINANCIAL BID SUBMISSION

(To be submitted in the excel format as available on the e-procurement portal)

Limited RFP for Selection of System Integrator for Providing O&M services of ETC System at Toll Plazas on National Highways Tender No. IHMCL/LTE-RFP/ O&M-ETC/2024/02, dated 01-02-2024						
Summary of Price Schedule						
Name of the Bidder:						
Date:						
Sl. No.	Toll Plaza Name	No of Lanes	Quarterly Price for ETC System Maintenance per Lane (in Rs.)	Price for ETC System Maintenance per plaza for 02 Years (08 Quarters) (in Rs.) (A)	Amount for Not Available Equipment as per sheet "Details of Not Available" (in Rs.) (B)	Total Price (C)= A+B
1	Brahamarkotlu	4		₹ 0	₹ 0	₹ 0
2	Akshda	6		₹ 0	₹ 0	₹ 0
3	Basapuram	6		₹ 0	₹ 0	₹ 0
4	Buchireddypalem	6		₹ 0	₹ 0	₹ 0
5	DC Palli	6		₹ 0	₹ 0	₹ 0
6	Durgamvaripalli	6		₹ 0	₹ 0	₹ 0
7	Gulalpurva	6		₹ 0	₹ 0	₹ 0
8	Hadwa	6		₹ 0	₹ 0	₹ 0
9	Kadthal	6		₹ 0	₹ 0	₹ 0
10	Kothiya	6		₹ 0	₹ 0	₹ 0
11	Lembalakudi	6		₹ 0	₹ 0	₹ 0
12	Navasari	6		₹ 0	₹ 0	₹ 0
13	Pandutala	6		₹ 0	₹ 0	₹ 0
14	Saliwada	6		₹ 0	₹ 0	₹ 0
15	Sosokhurd	6		₹ 0	₹ 0	₹ 0
16	Narsana	6		₹ 0	₹ 1,65,000	₹ 1,65,000
17	Bagepalli	8		₹ 0	₹ 0	₹ 0
18	Bhiknoor	8		₹ 0	₹ 0	₹ 0
19	Lechchumanapatti	8		₹ 0	₹ 0	₹ 0
20	Runni	8		₹ 0	₹ 0	₹ 0
21	Athur	10		₹ 0	₹ 0	₹ 0
22	Boothakudi	10		₹ 0	₹ 0	₹ 0
23	Chittampatti	10		₹ 0	₹ 0	₹ 0
24	Mathur	10		₹ 0	₹ 0	₹ 0
25	Paranur	12		₹ 0	₹ 0	₹ 0
Total Bid Price						₹ 1,65,000

In case of any change in the number of lanes for a particular Toll Plaza, pro-rata calculation shall be made based on lowest unit rate of lane equipment/lowest O&M rate quoted by the Bidder as per its Financial Bid.

8.6 Annexure-1

The subsequent table captures the toll plazas under this RFP: -

S.No	RO	PIU	Plaza Name	Total no. of Lanes
1	Bangalore	Mangalore	Brahamarkotlu	4
2	Lucknow - East	Gorakhpur	Akshda	6
3	Vijayawada	Kadapa	Basapuram	6
4	Vijayawada	Nellore	Buchireddypalem	6
5	Vijayawada	Nellore	DC Palli	6
6	Vijayawada	Tirupati	Durgamvaripalli	6
7	Lucknow - East	Lucknow	Gulalpurva	6
8	Lucknow - East	Gorakhpur	Hadwa	6
9	Hyderabad	Hyderabad	Kadthal	6
10	Ranchi	Sahibganj	Kothiya	6
11	Madurai	Karaikudi	Lembalakudi	6
12	Ranchi	Dhanbad	Navasari	6
13	Bhopal	Jabalpur	Pandutala	6
14	Bhopal	Jabalpur	Saliwada	6
15	Ranchi	Dhanbad	Sosokhurd	6
16	Jaipur	Barmer	Narsana	6
17	Bangalore	Bangalore	Bagepalli	8
18	Hyderabad	Nirmal	Bhiknoor	8
19	Madurai	Karaikudi	Lechchumanapatti	8
20	Patna	Muzaffarpur	Runni	8
21	Chennai	Chengulpat	Athur	10
22	Madurai	Trichy	Boothakudi	10
23	Madurai	Trichy	Chittampatti	10
24	Chennai	Chennai	Mathur	10
25	Chennai	Chengulpat	Paranur	12

8.7 Annexure-2

The existing Status of ETC system equipment at the fee plazas is as below: -

i. Brahamarkotlu

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A Lane Level Equipment				
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B Plaza Level Equipment				
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

ii. Akshda

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

iii. Basapuram

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

iv. Buchireddypalem

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

v. DC Palli

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

vi. Durgamvaripalli

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

vii. Gulalpurva

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

viii. Hadwa

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

ix. Kadthal

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

x. Kothiya

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xi. Lembalakudi

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xii. Navasari

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xiii. Pandutala

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xiv. Saliwada

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xv. Sosokhurd

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xvi. Narsana

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	6	Available	2019
2	Lane Controller with Industrial PC	6	Available	2019
3	AVC including sensors. Loop & detectors	6	Available	2019
4	User Fare Display with mounting pole	6	Available	2019
5	Automatic Barrier Gate	6	Available	2019
6	Overhead Lane Status light (OHLS)	6	Available	2019
7	Traffic light with mounting pole	6	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	6	Available	2019
10	License Plate Image Capture Camera with mounting poles	6	Available	2019
11	Customized industrial grade keyboard	6	Available	2019
12	TFT Monitor	6	Available	2019
13	Thermal Receipt Printer	6	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	6	Available	2019
15	Booth CCTV camera	6	Available	2019
16	Intercom Slave unit in booth	6	Available	2019
17	Lane Level UPS	6	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance	2	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	01 Available & 01 Not-Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xvii. Bagepalli

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	8	Available	2019
2	Lane Controller with Industrial PC	8	Available	2019
3	AVC including sensors. Loop & detectors	8	Available	2019
4	User Fare Display with mounting pole	8	Available	2019
5	Automatic Barrier Gate	8	Available	2019
6	Overhead Lane Status light (OHLS)	8	Available	2019
7	Traffic light with mounting pole	8	Available	2019
8	Loops with detector	16	Available	2019
9	Incident Capture Camera with mounting pole	8	Available	2019
10	License Plate Image Capture Camera with mounting poles	8	Available	2019
11	Customized industrial grade keyboard	8	Available	2019
12	TFT Monitor	8	Available	2019
13	Thermal Receipt Printer	8	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	8	Available	2019
15	Booth CCTV camera	8	Available	2019
16	Intercom Slave unit in booth	8	Available	2019
17	Lane Level UPS	8	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xviii. Bhiknoor

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	8	Available	2019
2	Lane Controller with Industrial PC	8	Available	2019
3	AVC including sensors. Loop & detectors	8	Available	2019
4	User Fare Display with mounting pole	8	Available	2019
5	Automatic Barrier Gate	8	Available	2019
6	Overhead Lane Status light (OHLS)	8	Available	2019
7	Traffic light with mounting pole	8	Available	2019
8	Loops with detector	16	Available	2019
9	Incident Capture Camera with mounting pole	8	Available	2019
10	License Plate Image Capture Camera with mounting poles	8	Available	2019
11	Customized industrial grade keyboard	8	Available	2019
12	TFT Monitor	8	Available	2019
13	Thermal Receipt Printer	8	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	8	Available	2019
15	Booth CCTV camera	8	Available	2019
16	Intercom Slave unit in booth	8	Available	2019
17	Lane Level UPS	8	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xix. Lechchumanapatti

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	8	Available	2019
2	Lane Controller with Industrial PC	8	Available	2019
3	AVC including sensors. Loop & detectors	8	Available	2019
4	User Fare Display with mounting pole	8	Available	2019
5	Automatic Barrier Gate	8	Available	2019
6	Overhead Lane Status light (OHLS)	8	Available	2019
7	Traffic light with mounting pole	8	Available	2019
8	Loops with detector	16	Available	2019
9	Incident Capture Camera with mounting pole	8	Available	2019
10	License Plate Image Capture Camera with mounting poles	8	Available	2019
11	Customized industrial grade keyboard	8	Available	2019
12	TFT Monitor	8	Available	2019
13	Thermal Receipt Printer	8	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	8	Available	2019
15	Booth CCTV camera	8	Available	2019
16	Intercom Slave unit in booth	8	Available	2019
17	Lane Level UPS	8	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xx. Runni

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	8	Available	2019
2	Lane Controller with Industrial PC	8	Available	2019
3	AVC including sensors. Loop & detectors	8	Available	2019
4	User Fare Display with mounting pole	8	Available	2019
5	Automatic Barrier Gate	8	Available	2019
6	Overhead Lane Status light (OHLS)	8	Available	2019
7	Traffic light with mounting pole	8	Available	2019
8	Loops with detector	16	Available	2019
9	Incident Capture Camera with mounting pole	8	Available	2019
10	License Plate Image Capture Camera with mounting poles	8	Available	2019
11	Customized industrial grade keyboard	8	Available	2019
12	TFT Monitor	8	Available	2019
13	Thermal Receipt Printer	8	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	8	Available	2019
15	Booth CCTV camera	8	Available	2019
16	Intercom Slave unit in booth	8	Available	2019
17	Lane Level UPS	8	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xxi. Athur

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	10	Available	2019
2	Lane Controller with Industrial PC	10	Available	2019
3	AVC including sensors. Loop & detectors	10	Available	2019
4	User Fare Display with mounting pole	10	Available	2019
5	Automatic Barrier Gate	10	Available	2019
6	Overhead Lane Status light (OHLS)	10	Available	2019
7	Traffic light with mounting pole	10	Available	2019
8	Loops with detector	20	Available	2019
9	Incident Capture Camera with mounting pole	10	Available	2019
10	License Plate Image Capture Camera with mounting poles	10	Available	2019
11	Customized industrial grade keyboard	10	Available	2019
12	TFT Monitor	10	Available	2019
13	Thermal Receipt Printer	10	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	10	Available	2019
15	Booth CCTV camera	10	Available	2019
16	Intercom Slave unit in booth	10	Available	2019
17	Lane Level UPS	10	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xxii. Boothakudi

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	10	Available	2019
2	Lane Controller with Industrial PC	10	Available	2019
3	AVC including sensors. Loop & detectors	10	Available	2019
4	User Fare Display with mounting pole	10	Available	2019
5	Automatic Barrier Gate	10	Available	2019
6	Overhead Lane Status light (OHLS)	10	Available	2019
7	Traffic light with mounting pole	10	Available	2019
8	Loops with detector	20	Available	2019
9	Incident Capture Camera with mounting pole	10	Available	2019
10	License Plate Image Capture Camera with mounting poles	10	Available	2019
11	Customized industrial grade keyboard	10	Available	2019
12	TFT Monitor	10	Available	2019
13	Thermal Receipt Printer	10	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	10	Available	2019
15	Booth CCTV camera	10	Available	2019
16	Intercom Slave unit in booth	10	Available	2019
17	Lane Level UPS	10	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xxiii. Chittampatti

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	10	Available	2019
2	Lane Controller with Industrial PC	10	Available	2019
3	AVC including sensors. Loop & detectors	10	Available	2019
4	User Fare Display with mounting pole	10	Available	2019
5	Automatic Barrier Gate	10	Available	2019
6	Overhead Lane Status light (OHLS)	10	Available	2019
7	Traffic light with mounting pole	10	Available	2019
8	Loops with detector	20	Available	2019
9	Incident Capture Camera with mounting pole	10	Available	2019
10	License Plate Image Capture Camera with mounting poles	10	Available	2019
11	Customized industrial grade keyboard	10	Available	2019
12	TFT Monitor	10	Available	2019
13	Thermal Receipt Printer	10	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	10	Available	2019
15	Booth CCTV camera	10	Available	2019
16	Intercom Slave unit in booth	10	Available	2019
17	Lane Level UPS	10	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xxiv. Mathur

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	10	Available	2019
2	Lane Controller with Industrial PC	10	Available	2019
3	AVC including sensors. Loop & detectors	10	Available	2019
4	User Fare Display with mounting pole	10	Available	2019
5	Automatic Barrier Gate	10	Available	2019
6	Overhead Lane Status light (OHLS)	10	Available	2019
7	Traffic light with mounting pole	10	Available	2019
8	Loops with detector	20	Available	2019
9	Incident Capture Camera with mounting pole	10	Available	2019
10	License Plate Image Capture Camera with mounting poles	10	Available	2019
11	Customized industrial grade keyboard	10	Available	2019
12	TFT Monitor	10	Available	2019
13	Thermal Receipt Printer	10	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	10	Available	2019
15	Booth CCTV camera	10	Available	2019
16	Intercom Slave unit in booth	10	Available	2019
17	Lane Level UPS	10	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

xxv. Paranur

SL No	Equipment Name	Minimum Qty. to be available	Equipment status	Year Of Installation
A	Lane Level Equipment			
1	RFID ETC transceiver near Pay-axis - mounted on canopy	12	Available	2019
2	Lane Controller with Industrial PC	12	Available	2019
3	AVC including sensors. Loop & detectors	12	Available	2019
4	User Fare Display with mounting pole	12	Available	2019
5	Automatic Barrier Gate	12	Available	2019
6	Overhead Lane Status light (OHLS)	12	Available	2019
7	Traffic light with mounting pole	12	Available	2019
8	Loops with detector	12	Available	2019
9	Incident Capture Camera with mounting pole	12	Available	2019
10	License Plate Image Capture Camera with mounting poles	12	Available	2019
11	Customized industrial grade keyboard	12	Available	2019
12	TFT Monitor	12	Available	2019
13	Thermal Receipt Printer	12	Available	2019
14	Violation light & Alarm (on existing pole) and Foot switch in booth	12	Available	2019
15	Booth CCTV camera	12	Available	2019
16	Intercom Slave unit in booth	12	Available	2019
17	Lane Level UPS	12	Available	2019
B	Plaza Level Equipment			
1	Intercom Master unit	1	Available	2019
2	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	4	Available	2019
3	ETC Server (Plaza)	1	Available	2019
4	Workstations for MIS, Cashup, Audit & LSDU	4	Available	2019
5	24 Port Network switch (Layer 3)	2	Available	2019
6	UPS system as required for complete ETC system (10 KVA or above)	2	Available	2019
7	Network Video Recorder (NVR)	1	Available	2019
8	Firewall	1	Available	2019
9	Servo Stabilizer (60 KVA -3 phase or as available at the plaza)	1	Available	2019

8.8 Annexure-3

Latest L1 rates discovered by IHMCL are as follows: -

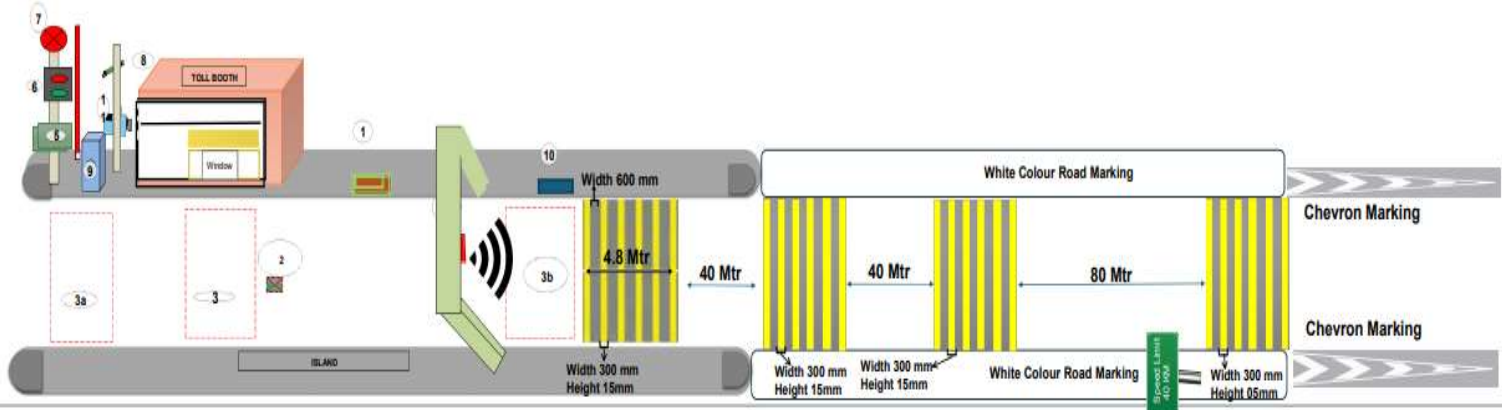
S.No	Equipment Name	Unit Rate (Rs.)
1	RFID ETC transceiver near Pay-axis - mounted on canopy (1 per lane)	40,000
2	Electronics Enclosure - (1 per lane)	1,000
3	Lane Controller with Industrial PC - (1 per lane)	60,000
4	AVC including sensors & Controller(1 per lane)	60,000
5	User Fare Display with mounting pole - (1 per lane)	7,000
6	Automatic Barrier Gate - (1 per lane)	40,000
7	Overhead Lane Status light (OHLS) - (1 per lane)	4,000
8	Traffic light with mounting pole - (1 per lane)	4,000
9	Loop with detector - (2 per lane)	1,000
10	Lane Monitoring Camera/Incident Capture Camera with mounting pole - (1 per lane)	2,000
11	Automatic Number Plate Recognition Camera with mounting pole (1 per lane)	25,000
12	Customized industrial grade keyboard - (1 per lane)	5,000
13	Cabling/Networking/Installation/Commissioning (Lump sum)	40,000
14	Software – Lane Level - (1 per lane)	5,000
15	ETC Server (01 per Plaza)	3,50,000
16	Workstations for MIS, Cashup, Audit & LSDU (Lane status display unit in control room)	45,000
17	24 Port Network switch (Layer 3)	40,000
18	Software – Plaza level	25,000
19	UPS system for Plaza Building equipment	1,65,000
20	Servo stabilizer (60 KVA - 03 phase)	88,000
21	Network Video Recorder (NVR) for CCTV recording with adequate storage upto min. 30 days (for Booth Cameras, Plaza Building Cameras, Lane Monitoring Camera and PTZ Cameras)	44,000
22	TFT Monitor - (1 per lane)	5,000
23	Thermal Receipt Printer - (1 per lane)	8,500
24	Violation light & Alarm (on existing pole) and Foot switch in booth - (1 per lane)	2,000
25	Booth CCTV camera with voice recording - (1 per lane)	2,000
26	Intercom Slave unit in booth - (1 per lane)	3,000
27	Lane Level UPS - (1 per lane)	20,000
28	Intercom Master unit - (1 per plaza)	45,000
29	Firewall Hardware	40,000
30	PTZ Camera Including P2P RF connection & other allied equipment as specified in the RFP	1,17,000
31	CCTV cameras for Plaza building surveillance (server room, control room, cash room, admin)	2,000

8.9 Annexure-4

Fault Summary Report									
Month:									-
Reporting Date: -									
S.No	Equipment Name	Equipment Location	Equipment Category (Critical/Non-Critical)	Fault Description	Fault Date (DD/MM/YY HH:MM)	Remedial Action Description	Remedial Action Date ((DD/MM/YYY HH:MM))	Total Downtime in Hrs	Remarks
1									
2									
3									
4									
5									
6									
15									

8.10 Annexure-5

Swift Flow Lane Layout



List of equipment's

S.No.	Equipment	Symbol	Location
1	Utility/Duct Chamber (size as per requirement)		Island
2	Overhead Lane Signal		Canopy
3	Loop		Lane
3a	Exit Loop		Lane
3b	Entry loop (Optional, as per requirement of Service Provider)		Lane
4	ETC Antenna/ RFID Reader		Pole
5	User fare Display		Toll Booth/Island
6	Traffic Light & Pole		Toll Booth/Island
7	Violation Alarm Light		Island
8	Incident Camera		Island
9	Automatic Lane Exit Barrier		Island
10	Vehicle Separator		Island
11	License Plate Image Capture Camera		Island
12	Chevron Marking		Road
13	Bar Marking (Yellow Colour)		Road

8.11 Annexure-6 - List of fee plazas (Swift Flow Lanes)

S.No	RO	PIU	Total no. of Lanes	No of Lanes	No. of Lanes for Swift Flow
1	Chennai	Chengulpat	Paranur	12	2(1 lane each direction)
2	Chennai	Chengulpat	Athur	10	2(1 lane each direction)
3	Bangalore	Mangalore	Brahamarakotlu	4	2(1 lane each direction)
4	Bangalore	Bangalore	Bagepalli	8	2(1 lane each direction)
5	Hyderabad	Nirmal	Bhiknoor	8	2(1 lane each direction)