S. No.	Reference	Existing Clause	Queries/Suggestion by Vendors	Draft-Responses
1	Section: 3.2 Clause No. (j) Page No. 9	Eligibility Only participants/respondents of this EOI will be eligible for RFP participations.	Please clarify whether the Tender (RFP) will be Limited or Open Tender.	The RFP would be an open tender.
2	NA	NA	Please specify the format of Power of Attorney for Authorized Signatory.	For the scope of this EoI, PoA is not required.
3	EOI_ITMS, Page 3	Key dates: Last date for submission of EOI Last date for submission of EOI - 19/10/2020 05:00 PM	Request to amend with minimum **2** weeks from date of clarification Online meeting i.e. upto 28/10/2020 05:00 PM	EOI clause prevails
4	EOI_ITMS, 3.2 Eligibility Page 9	The number of entities in a joint venture/consortium/association is limited to 2 (Two).	Request you to allow minimum 3 entities to come into JV/consortium, where as 3rd shall be MSME registered company. This we request as per govt. guildelines to promote small and medium class industires.	EOI clause prevails
5	EOI_ITMS, 3.2 Eligibility Page 9	The respondent shall have implemented at least two similar projects of atleast 20 Cr each in India. Necessary proof of documents needed to be furnished.	Refer to CVC guidelines request you to ammend, Experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following: - a. Three similar completed works costing not less than the amount equal to 40% of the estimated cost. i.e. 10.8 Cr. **or** b. Two similar completed works costing not less than the amount equal to 50% of the estimated cost i.e. 13.5 Cr. **or** c. One similar completed work costing not less than the amount equal to 80% of the estimated cost i.e. 21.6 Cr.	Please read the amended Clause as "Experience of having successfully completed similar works in India during last 5 years with either of the following: - a. Three similar completed works costing not less than the amount equal to 10.4 Cr. or b. Two similar completed works costing not less than the amount equal to 13 Cr. or c. One similar completed work costing not less than the amount equal to 26 Cr."
6	EOI_ITMS, 3.2 Eligibility Page 9	The respondent should have valid ISO 20000:2011 (should have a valid certificate as on submission date of EOI) certificate or equivalent certification.	The respondent should have valid **ISO 9001:2015** (should have a valid certificate as on submission date of EOI) certificate or equivalent certification.	EOI clause prevails
7	Additional clause to be added	Nomination of OEM: (Original Equipment Manufacturer)	Request you to add clause on defination of OEM to be listed as: The OEM shall be nominated by the bidder and be dedicated for the product line to the said Bidder. This will ensure that there will not be any manuplation by the single OEM for supply part of this tender.	EOI clause prevails
8	Technical Specification; Page 25	Traffic Signal Controller 1. Minimum of 2 Line 16 Character LCD Display or showing the current working status and to view the configured parameters	Request you to amend with more efficienet and advanced VGA LCD Touch screen should be provided for easy maintenance and program the controller.	This is minimum requirement given, However bidder may propose equivalent or higher version.
9	Technical Specification; Page 26	Controller output switching; 24 VDC 5A MOSFET based common negative switching	Request you to amend Controller output switching; 24 VDC 5A MOSFET based common negative switching or 230VAC TRIAC based	Please read the amended Clause as "Controller output switching shall be 24VDC/230VAC with appropriate SSR based common negative switching. However bidder shall ensure and comply that appropriate protection to the lamp driver and other circuit cards."
10	Technical Specification; Page 26	No. of outputs 16 to 64 Scalable in group of 16	No. of outputs In group of 8 or as per controller design to meet site requirements	EOI clause prevails

11	Technical Specification; Page 27	Working voltage 24 V DC +-10%	Working voltage 24 V DC +-10% or 230VAC	Please read the amended Clause as "Controller output switching shall be 24VDC/230VAC with appropriate SSR based common negative switching. However bidder shall ensure and comply that appropriate protection to the lamp driver and other circuit cards."
12	Technical Specification; Page 29	Certification: Environmental certification as per the standard IEC 60068	Request you to amend with higher class for functional safety in road traffic signal system EN 12675:2000 Functional safety requirements EN 50293:2012 electromagnetic compatibility EN 50556:2011 Road traffic signal systems	Please read the amended Clause as "Environmental certification as per Standard IEC60068 or equivalent"
13	Technical Specification; Page 45- b. Videowall and Controller Workstation Video wall for CCC	Video Wall, Controller, Cube & Wall management software should preferably be from same OEM for ensuring smooth operations and seamless integration and feature enablement and enhancement.	Request you to allow Video Wall, Controller, Cube & Wall management software from different OEM for more flexibility.	EOI clause prevails
14	SCOPE	Indicative/Tentative Bill of Materials Proposed quantity are 1 for all items	Request you to confirm No. of locations or No. of junctions and Lanes for ANPR covered for which this EOI is called.	Current EOI phase is envisaged to capture the unit price of the equipment's only. The detailed list of the locations shall be shared during the RFP stage.
15	Page 7 - Indicative/Tentative Bill of Materials		As part of EOI Price for items are never asked. Request you to kindly confirm shall we need to fill prices for the proposed BoM.	Yes, the prices have to be filled for the proposed BOM
16	Indicative/Tentative Bill of Materials	2x2-47'' Video wall with and controller with associated accessories	Please change this to 2x2-50'' DLP LED Based Video wall with controller and associated accessories. **Justification:** 1. Video wall is required in ITMS for 24x7 operation LCD suffers from an inherent property of static image retention & ghosting effect if an image is displayed for long period of time. Since video wall is required for monitoring of critical data, we suggest shifting to LED based DLP Video wall which is preferred for such applications. 2. LCD needs to be replaced after 3 years due to its short lifetime which adds additional cost to customer Since 5 year comprehensive wartranty is asked in this EOI, we suggest to shift to LED based DLP video wall	EOI clause prevails
17	1.1.40 Traffic Command & Control Center/b. Videowall and Controller Workstation	1. Technology- Should have IPS LED display with direct LED backlight.	Please change this to LED based DLP Video wall **Justification:** LCD panels get obsolete very quickly and therefore long-term support is not possible with this technology. The newer panels do not fit in with the older panels hence not possible to use them to replace the older failed panels. We suggest shifting to LED Based DLP technoilogy.	EOI clause prevails
18	1.1.40 Traffic Command & Control Center/b. Videowall and Controller Workstation	2. Screen size- Should be of 45/50 inch diagonal size	Please change this to 50" LED based DLP video wall as this is a standard size	Please read the amended Clause as "Screen size- Should be of 50" diagonal size"

19	1.1.40 Traffic Command & Control Center/b. Videowall and Controller Workstation	3. Contrast- 5000:1 or better	Please change this to 1400:1 **Justification:** This is specific to one OEM and also with such high contrast ratio colors will appear to be more saturated and will cause fatigue to operator's eye which is not recommened for control room applications.	EOI clause prevails
20	1.1.40 Traffic Command & Control Center/b. Videowall and Controller Workstation	7. Wall uptime/ Lifetime- 50000 hours or better	Please change this to LED light source lifetime: 1,00,000 hours **Justification:** LCD needs to be replaced after 3 years due to its shorter lifetime which adds additional cost to customer We suggest shifting to LED based DLP video wall which has life of 1,00,000 hrs.	EOI clause prevails
21	1.1.40 Traffic Command & Control Center/b. Videowall and Controller Workstation	9. Bezel size- less than 5 mm	Please change this to s 0.2mm screen gap **Justification**: 5mm bezel size is huge and will cause loss of critical information while displaying on screen which is not desireable in control room applications. We suggest shifting to DLP technology which has 0.2mm screen gap which is very negligible & not even percievable to naked eyes.	EOI clause prevails
22	1.1.40 Traffic Command & Control Center/b. Videowall and Controller Workstation	Video wall display panels	Specifications mentioned under Video wall display panels on pg-46 are of controller. But heading is "Video wall display panels" seems to be a typo error. Please change this to Video wall Controller.	The heading should be read as "Video wall Display controller specifications"
23		Additional	Video wall and controller should be from same OEM and should have BIS certification. **Justification:** This is to ensure a smooth integration between the supplied systems & so as to receive a standard product	The request will be considered for RFP Phase.
24		2x2-47'' Video wall with and controller with associated accessories	Please change this to 4 x2-50'' DLP LED Based Video wall with controller and associated accessories. **Justification:** 1 . 2x2 Configuration will be very small to visualize the various data coming form the ITMS sub system. We suggest to increase the configuration minimum 4x2 to provide approx 4 meter by 1.2 meter display area with 7680 x 2160 pixel to display varoius information at the same time for visualization and quick action.	EOI clause prevails

25	Karimnagar Smart City Corporation Limited (KSCCL) Intelligent Traffic Management System Page no. 11 of 65	CCC Components 10. Worktable and Furnitures (4 chairs and 4 tables)	In the Referred RFP document, one of the important aspects has been overlooked i.e control desk design & supply as per International ergonomic, safety norms. It is requested to refer the below information to ensure that the project/city get world class control desk in line to International norms. Control Desk is one of the most important aspect of control room because from these stations any kind of opertion & monitoring shall be done. The console furniture must be designed to ensure fatigue free operations even if the operators work for more than 10-12 hours. To ensure quality in the final product i.e Control Desk it is recommended to use below mentioned information and necessary documents, test certificates shall be submitted along with the bid. 1. Table-top: - The material of the working surface shall be 25mm thick MDF. The worktop is in direct contact of the users hence the probability of getting scratches is on a higher side. The control room solution provider must ensure that the top finish of the worksurface is scratch resistant. Therefore, the top finish shall be of high-pressure ANSI/NEMA LD3 certified scratch-resistant Laminate. The proposed console's life cycle should be assessed (from approved LCA consultant) for environmental impacts associated with all the stages of a product's life for cradle to grave analysis. Each operator desk shall have programmable touch panel having five modules. The first module shall be used to power on/off the Task Light, next three modules shall feature LED indicators viz red, green & blue to demonstrate different control room scenarios. These scenarios shall be controlled by the supervisor/main control desk and the balance module shall be used for further customization. 2. Structure Stability :- Made of heavy duty extruded vertical and horizontal aluminium profiles of HE9WP grade. The Extrusions shall be duly powder coated with 40+ micron over all surfaces. All sheet metal parts must be finished with a durable, black, electrostatic powder coating. To allow future extension and expansion, a weld free system shall be proposed. Interconnecting joints shall not be visible. The structure shall be rigid enough to withstand BIFMA X5.5: 2014 (Latest Edition) tests. Valid certificate to be submitted along with the bid. The structure shall allow easy assembly of shutters, slat wall, gland plate, and monitor arms in extremely rigid manner. 3. Maintainability Feature- The front edge of consoles is the component which comes in frequent contact of the operator. The soft polyurethane edge is an ergonomic requirement as per ISO 11064 (International norms for Control Room Ergonomics) and is meant to prevent injury (accidental impact) to operator during emergency and it also reduces the contact stress. In case of damage to this edge the desk design should permit quick & easy replacement within half an hour without taking any shutdowns or removal of the tabletops. This is must to ensure zero downtime because of such maintenance. UL Certified design feature of High-density Poly Urethane Foam moulded on industrial grade aluminium core to form 50mm deep tapered edge to be installed on worktop. The Edge shall be mechanically replaceable within 30 minutes in case of damage or wear without opening or removing the worktop. Valid UL audit certificate to be enclosed along with the bid.	EOI clause prevails
26	1.4 Authority issuing Invitation for EOI , page 6	This EOI intends to shortlist prospective System Integrators for implementation of Intelligent Traffic Management System Project with respect to the technical specifications and Bill of material shared with this document.	Please clarify that as next stage of this EOI , will there be a Closed tender limited to selected System integrators Or open tender	The RFP would be an open tender.
27	1.4 Authority issuing Invitation for EOI , page 6	The respondents are also expected to have a detailed site visit and study of all the proposed project sites/locations.	Please provide location list	Tentatively all major junctions of Karimnagar shall be covered, however final scope shall be published as part of the RFP.
28	3.1 Objective of the EOI, page 8	Based on the responses to this invite for EOI, the Authorities may float an RFP to eligible System Integrators in future	Please clarify that as next stage of this EOI, will there be a Closed tender limited to selected System integrators Or open tender	The RFP would be an open tender.
29	2.1 Likely Activities to be undertaken during the actual project implementation (not in EOI), page 7	Pilot implementation to be taken for 1 or 2 Junctions as suggested by KSCCL	Will this pilot be on paid basis or free of cost	Section 2.1 stands deleted.
30	2.1 Likely Activities to be undertaken during the actual project implementation (not in EOI), page 7	Pilot implementation to be taken for 1 or 2 Junctions as suggested by KSCCL	What would be duration of pilot	Section 2.1 stands deleted.

31	2.1 Likely Activities to be undertaken during the actual project implementation (not in EOI), page 7	Pilot implementation to be taken for 1 or 2 Junctions as suggested by KSCCL	What would be deliverable out come of this pilot	Section 2.1 stands deleted.
32	3.2 Eligibility , page 9	The respondent shall have implemented at least two similar projects of at least 20 Cr each in India. Necessary proof of documents needed to be furnished.	Please define silimar projects	Similar projects means any projects which shall involve road traffic signaling management system (including VAC, ATCS etc) or traffic violation enforcement system or both.
33	3.3 Invitation of this EOI Conditions	The applicants of EOI, after evaluation by KSCCL, may be invited to submit their technical and financial proposals in response to the RFP document, in the method to be described in the RFP document.	Please provide details of evaluation process for EOI participants	
34	EoI_ITMS_BoM_Technical_Specifications , page 8-14	Indicative/Tentative Bill of Materials	Please clarify if participants is expected to submit rates for items listed in Indicative/Tentative Bill of Materials. Yes or No?	Yes
35	3.2 Eligibility, point g , page 9	The respondent shall have implemented at least two similar projects of at least 20 Cr each in India. Necessary proof of documents needed to be furnished	We would request you to consider on-going, International project experience of the bidder as well for the eligibility criteria. Therefore, plz modify the clause as below: "The respondent shall have implemented at least two similar projects of at least 20 Cr each in India or elsewhere out of which atleast one project should have been implemented in the last 5 years. Necessary proof of documents needed to be furnished."	EOI clause prevails Read in conjunction with the amended clause.
36	3.2 Eligibility, point b, page 8	The respondent should be operational continuously in the field of Intelligent Traffic Management System (ITMS) - Design, Development, Implementation, Operations & Maintenance for the last 3 (Three) years as on the date of submission.	We understand that there are several similar terminologies used in this partiular industry such as Integrated Traffic Management Systems, Advanced Traffic Management Systems and shall be considered as Eligible Project. Please confirm.	Similar projects means any projects which shall involve road traffic signaling management system (including VAC, ATCS etc) or traffic violation enforcement system or both.
37	3.2 Eligibility, page 8	General	As similar projects have been implemented globally for quite some-time, we request you to consider the bidder to use the technical and financial qualification of its parent firm, if it is a wholly owned subsidiary of its parent firm. Please confirm.	The detailed eligibility criteria shall be published in RFP phase.
38	Page 7 of 65	Indicative/Tentative Bill of Materials	The indicative quantities in BOQ of various items are mentioned as one. Please share the tentative number of quantities and number of Traffic junctions applicable for this project which will help us to assess the quantum of work to be taken up and as prices would also vary depending on the quantities required.	The final BoQ would be part of RFP
39	Page 7 of 65 in Bills of Materials	Indicative/Tentative Bill of Materials	Indicative BOQ incudes the Unit rate ,Tax rate, total amount column and technical specification given for ITMS components. We understand that the given BOQ template and technical specification are provided for reference purpose and there is no technical/financial proposal to be submitted during the EOI stage. Neither there is an obligation on us to stick to the same prices in the RFP Proposal stage. Please confirm.	Yes, understanding is correct
40	General Query	General Query	We request that the selection of the bidder in the RFP stage shall be on a QCBS 80:20 to ensure the bidder with good technical capability with reasonable price is selected.	The details shall be published in the RFP phase
41	Preference for Make in India, page 12	All the Bidders to note that Govt. of India had taken out Preference for Make in India (PMI) policy in 2015 and subsequently respective nodal ministries have taken out GOs detailing out the PMI and local content (LC). Bidders are encouraged to go through the GOs issued by DoT and MeiTY.	Preference is a subjective matter. Kindly share a minimum measurement for qualification for the bid to have Make in India products.	The bidder is encouraged to go through the GO's listed in the EOI clause. (Clause No 3.8,12).

42	Page no. 9 of EoI	The respondent shall have implemented at least two similar projects of atleast 20 Cr each in India. Necessary proof of documents needed to be furnished.	We are SI in smart city solution SITC and O&M. We are currently implementing few smart cities. ITMS solution was a part of smart city ICCC or smart solutions RFPs in India till date. There are few recent RFPs only for ITMS in few cities. We suggest to modify this clause so that we as well as other who has experience in ICCC, ITMS and other smart solutions can participate. 1. The respondent must be implementing at least two smart city projects of atleast 20 Cr each in India.	Please read the amended Clause as "Experience of having successfully completed similar works in India during last 5 years with either of the following: - a. Three similar completed works costing not less than the amount equal to 10.4 Cr. or b. Two similar completed works costing not less than the amount equal to 13 Cr. or c. One similar completed work costing not less than the amount equal to 26 Cr."
43	Page no. 9 of EoI	The respondent shall have implemented at least two similar projects of atleast 20 Cr each in India. Necessary proof of documents needed to be furnished.	These project should have ITMS elements such as ICCC, ATCS, Traffic Enforcement (RLVD/Speed, ANPR) etc.	Similar projects means any projects which shall involve road traffic signaling management system (including VAC, ATCS etc) or traffic violation enforcement system or both.
44	Page no. 9 of EoI	The respondent shall have implemented at least two similar projects of atleast 20 Cr each in India. Necessary proof of documents needed to be furnished.	ATCS or Traffic Enforcement must be completed for minimum 10 junctions or locations in any two cities.	EOI clause prevails
45	3.2 Eligibility Page no:9	g) The respondent shall have implemented at least two similar projects of atleast 20 Cr each in India. Necessary proof of documents needed to be furnished.	We are SI in smart city solution SITC and O&M. We are currently implementing few smart cities. ITMS solution was a part of smart city ICCC or smart solutions RFPs in India till date. There are few recent RFPs onlt for ITMS in few cities. We suggest to modify this clause so that we as well as other who has experience in ICCC, ITMS and other smart solutions can participate. 1. The respondent shall have implemented at least two similar projects of atleast 7 Cr each in India. Necessary proof of documents needed to be furnished. Justification: Would enable broader participation. 2. These project should have ITMS elements such as ICCC, ATCS, Traffic Enforcement (RLVD/Speed, ANPR) etc.	Please read the amended Clause as "Experience of having successfully completed similar works in India during last 5 years with either of the following: - a. Three similar completed works costing not less than the amount equal to 10.4 Cr. or b. Two similar completed works costing not less than the amount equal to 13 Cr. or c. One similar completed work costing not less than the amount equal to 26 Cr." Similar projects means any projects which shall involve road traffic signaling management system (including VAC, ATCS etc) or traffic violation enforcement system or both.
46	EOI for Intelligent Traffic Management System (ITMS) Page 7 of 65 Indicative/Tentative Bill of Materials Page no:11		Requesting you to confirm that, bidder need to submint indicative prices along with EOI ?	Yes, understanding is correct
47	General		Is Bidder need to deploy the manpower resources for monitoing during Operations and Maintenance (O&M) period.	Yes, understanding is correct. The details will be provided as part of RFP

48	Volume 1; 3.2 Eligibility	h) The respondent should have valid ISO 27001:2013(should have a valid certificate as on submission date of EOI) certificate or equivalent certification.	Requesting you to modify the clause to: h) The respondent should have valid ISO 14001:2015/ISO 27001:2015/ISO 9001:2015 (should have a valid certificate as on submission date of EOI) certificate or equivalent certification. Justification: ISO 27001:2013 is very specific.	EOI clause prevails
49	Volume 1; 3.2 Eligibility	Additional Criteria	Requesting you to modify the clause to: The OEM of ATCS shall have deployed at least 5 ATCS projects of 40 junction each on an average in India. Justification: This will ensure quality OEM participation.	EOI clause prevails
50	Volume 2; 1.1.1 Traffic Signal Controller	The Traffic Signal Controller equipment shall be of minimum 32/64 bit microcontroller-based and shall have an advanced relay-based traffic signal lamp switching and a conflict monitoring facility to ensure that conflicting, dangerous or disallowed traffic signal displays.	Requesting you to modify the clause to: The Traffic Signal Controller equipment shall be of minimum 64 bit microcontroller-based and shall have an advanced solid state traffic signal lamp switching module and with the ability to program any combination of traffic signal stages, phases, and junction groups with conflict monitoring facility Justification: Relay based switching is not durable and considering the duration of the project a better technology shall be used. Also in later sections MOSFET based switching has been asked to which we comply.	This is minimum requirement specified, the bidder is free to propose equipment with better specification.
51	Volume 2; 1.1.1 Traffic Signal Controller	Additional Clause	Requesting you to add this clause: ATCS shall use standard communication protocols UG405 or NTCIP. It should also provide the functionality of integration with on-ground hardware of any third-party traffic controller that is UG405 or NTCIP compliant. Justification: The controller and control room application communication standard compliance would ensure no-vendor lock-ins and easy interoperatibility in future	EOI clause prevails
52	Volume 2; 1.1.16 Central traffic management software with ATCS	Additional Clause	Requesting you to add travel sensors such as Bluetooth & WiFi sensors to add the real time capturing of travel times in various links for better optimisation in ATCS system.	EOI clause prevails
53	Volume 2; 1.1.16 Central traffic management software with ATCS	Additional Clause:	Requesting you to kindly add the following clause : The ATCS system shall be capable to use Machine Learning based prediction modelling which shall have the ability to predict, forecast and smartly manage the traffic pattern at each junction over the next few minutes, hours or 3-5 days and just in the current real time on the central ATCS server. The models shall be calibrated once the system stabilizes after a duration of 2-3 months after the deployment. The prediction function shall use a network model resulting in consistent flows across a group of junctions. Justification: ML will improve optimisation efficiency of the system and help devising better strategies for controlling traffic by forecasting demands.	EOI clause prevails
54	Volume 2; 1.1.16 Central traffic management software with ATCS	Additional Clause:	The proposed ATCS application shall have capabilities (in future) to optimise traffic signals on the basis of online travel time data such as Google, TomTom as well. The ATCS system shall fuse data from all available sources such as ANPR, Google, Detectors, etc. and use it for optimisation. The network model shall be calibrated by using multiple data sets.	EOI clause prevails
55	Volume 2; 1.1.16 Central traffic management software with ATCS	Additional Clause:	Requesting to add this clause: Optimization mode - strategic: The system shall have a short term traffic state prediction model which continually estimates the state of the network, in terms of traffic flows and travel times. The traffic flows and travel times are to be input into an offline microscopic traffic flow simulation model. If significant changes in the network state are observed, traffic engineers shall be able to run simulation models to perform what-if analysis on pre-defined traffic management strategies. The controller shall send the classified counts to the ATCS application is order to enable this functionality. Justification: The model based optimisation would result in better system efficiency as compare to the hueristic one.	EOI clause prevails

56	Volume 2; 1.1.16 Central traffic management software with ATCS	Additional Clause:	Requesting you to kindly add the following clause : Simulation Model: The adaptive traffic control system shall be provided with a simulation model based real time traffic flow modelling capability with the capacity to calculate traffic flows, OD movements, and queues and turning movement along entire primary road transport network in the defined study area covering the ATCS junctions and beyond. -The simulation software shall assist evaluating potential traffic control strategies in case of any anomalies and identify the appropriate strategies for the traffic control. - Calibrated traffic simulation models for AM peak, PM peak, inter-peak and off-peak for weekdays and peak and off-peak for Saturday & Sundays covering all the ATCS junctions shall be provided -Shall have the ability to predict, forecast and estimate the traffic pattern across the signals over the near-term future (e.g T+5, T+10, T+15, T+30 mins ... T + 1 hour). It shall also use machine learning for better accuracies. Justification: New clause as per city requirements. This would enable the enahnced system to use machine learning based prediction along with the validations.	EOI clause prevails
57	Volume 2; 1.1.16 Central traffic management software with ATCS	Additional Clause:	Requesting you to add this clause: The system shall have network model based optimiser which uses a combination of a network-wide online traffic simulation model and an AI-based optimisation engine to determine optimal signal timings in order to minimise the overall delay incurred by vehicles and to maximise vehicle throughput. Justification: Model based optimisation is the most advanced kind of optimisation which looks at the entire network holistically and drive best possible outcomes for the system.	EOI clause prevails
58	Volume 2; 1.1.16 Central traffic management software with ATCS	Additional Clause:	Requesting you to add this clause: Gating: A few junctions in a road network are critical due to simultaneous high demand for conflicting traffic streams. Congestion at these junctions is higher than other junctions where high demand exists only for fewer traffic streams and the available green time can be redistributed to mitigate congestion to some extent. This leads to a severe queue build up at critical junctions. Gating is a strategy that artificially reduces the capacity of traffic signals at junctions upstream of the critical junction using traffic signals such that that queues are re-distributed across multiple junctions thereby reducing the total delay across junctions for critical traffic streams. The proposed ATCS system shall have the capability to optimise signal timings at a group of junctions incorporating gating. Specifically, the user shall be able to select the upstream junctions where the queues are to be relocated based on available storage capacity and the system should be able to determine optimal signal timings at those junctions to implement gating. Justification: Gating will assist in optimzing traffic at critical junctions & will lead to better network perfromance	EOI clause prevails
59	Volume 2; 1.1.16 Central traffic management software with ATCS	Additional Clause:	Request you to add the following clause: The application shall interface with a popular microscopic traffic flow simulation software for pre and post implementation analysis which shall be based on real time traffic flow modelling capability with the capacity to calculate traffic flows, OD movements and turning movements along entire primary road transport network. In addition, the simulation should interface with an offline instance of the ATCS system in order to carry out what-if analyses of traffic control strategies. The system should be able to provide an estimate of a Performance Index of the chosen strategy versus alternative strategies. The simulation model along with ATCS shall thus assist the traffic engineers / police to identify the best possible strategy in planning for any unusual / unprecedented event. Justification: The online simulation model will assist traffic police/operators to visualise the on-ground issues better and act pro-actively by evaluating multiple strategies.	EOI clause prevails
60	Volume 2; 1.1.17 Data entry to Local Controller; Technical Specifications	CPU: 32/64 Bit Microcontroller clocked at minimum of 20MHz.	Requesting you to modify the CPU: **64 Bit Microcontrolle**r clocked at minimum of 1.2GHz. Justification: This would enable to controller to run faster and process more data and complex logic quickly resulting in enabling of AI based optimisation	This is minimum requirement specified, the bidder is free to propose equipment with better specification.

61	Volume 2; 1.1.17 Data entry to Local Controller; Technical Specifications	2. Program memory: Minimum of 512K Flash and 128K RAM	Requesting you to modify this clause to: RAM: 2 GB minimum LPDDR4 SDRAM and 16GB of storage. Justification: More RAM is needed to process the detailed vehicle by vehicle traffic data generated by detectors. Otherwise the data would be lost.	This is minimum requirement specified, the bidder is free to propose equipment with better specification.
62	Volume 2; 1.1.17 Data entry to Local Controller; Technical Specifications	12. Vehicle detector input: Minimum of 16 optically isolated inputs for Vehicle detection, Compatible to Inductive loop sensors Camera Based detectors and Radar based detectors	Requesting you to kindly modify the clause to: Communication with detector: Shall be able to take detailed traffic data from detectors via ethernet over TCP/IP or using RS232 or RS484 port. Justification: The I/O based detection input is an obsolete way of taking data from detectors. It can only support vehicle presence data however the advancec detectors suggested in the RFP will be able to share the detailed traffic data via ethernet or other modern modes of communication.	EOI clause prevails
63	Volume 2; 1.1.17 Data entry to Local Controller; Technical Specifications	Additional Clause	Requesting you to add this clause: Media interfaces: 2 × USB 2.0 Ports 2 × USB 3.0 Ports 2.4 GHz and 5.0 GHz IEEE 802.11b/g/n/ac wireless LAN, Gigabit Ethernet Justification: These are advanced interfaces required for integrating with ATCS components in future.	EOI clause prevails
64	1.1.17	Data Entry to Controller . Detector queries No technology has been menitoned making it very open	Dear Sir, For any ATCS to work in a better way a effective detector is required which can perform in all light conditons, all weather conditions and can do atleat queue detection for 150 meters, does not require cleaning and can track more than 100 vehicles at stop line as well as at 150 meters providing x, y , z coordinates with speed etc. We request you to please provide detector specifications to have good comparison. We would suggest you to put above functionsl requirement as its very imprortant.	EOI clause prevails
65	60-65	Traffic Enforcement analytics and software	Request you to specify dual sensor technology radar+camera w so that Fair system can be put. It is only system which has proper simulators and can provide x, y coordinate with speed for exact vehcile identification. It also provides tracking for more than 100 meters and thus can provide control image . We also request to confirm if system should have proper test reports and certificates from labs who have mandate to issue the same for speed enforcment. We request you to ask for OIML R , 91 D11 and welemc with proper legal decree/hologation/type aproval certifciates etc compliance as they are neither country nor OEM speicific these will make systems Fair for citizens. The same has been asked in Delhi, mumbai, Rajastan, D DUN, KANPUR, Highways, and various other smart cities and speed enforcmnet projects.	EOI clause prevails
66		Refernce for system	Please also confirm if we can bid with a new system or it shodu lhave some basic experience and installtion base.	The details shall be part of RFP
67	51	Any upgrade carried on should not result in performance degrade, OEM should make provision of appropriate components to address such issue without any additional cost.	Whenever there is an upgrade of drives without the addition of controllers,there will be a minimal performance downgrade for any storage solution. To avoid the performance downgrade, the controllers also need to be upgraded whenever the disk upgrade is in large quantities. Hence please remove this clause	EOI clause prevails
68	50	Even in case of natural calamities Data loss in Storage should be zero	Please remove this clause as we have no information on the nature of the calamity and extent of damage. This is applicable for all the brands	Request considerd,clause deleted
69		General Query	We don't see backup solution specifications in the document. Backup software and backup storage help customers to protect their data by the creation of a second copy. We suggest to include backup solution in the requirement	Backup solution is required. Detailed specifications are added.
70	11	New Generation Firewall	**Kindly confirm if you are looking for next generation Firewall. If yes then please share the below details:** No of segments to be protected? Throughput of the Firewall, IPS and NGFW Number of 1G ports (Copper/Fiber) Number of 10 G ports Internet bandwidth links and speed? Do you have MPLS Links ? If yes then share the bandwidth of the links . VPN throughput (SSL/IP sec) Number of Users will access firewall ?	The details shall be published in the RFP phase
71	Workstation clause 12, page 44	BIOS controlled electro-mechanical internal chassis lock for the system Advanced antivirus, antispyware, desktop firewall, intrusion prevention system managed by a	Are you looking for a separate enterprise level antivirus solution or it is part of windows offering ?	An enterprise level antivirus solution is required. Detailed specifications added.

72	46	Contrast- 5000:1 or better	As per industry standard two types of panel technologies available (IPS Panel & VA Panel). The ask contrast ratio is specific to single OEM, we would request you to kindly consider the contrast ratio as per available panel technologies. As every Display OEM has the different contrast ratio Request you to kindly accept the contrast ratio as per available with respective OEM and Panel Technology. Request to Change - Contrast 1300:1 or better this will make the specs in generic to allow all leading brands participations.	The asked specification is generic in nature and is fulfilled by multiple OEMs. However the bidder is free to propose a product with better contrast
73	3.2 Eligibility Page no:9	g) The respondent shall have implemented at least two similar projects of atleast 20 Cr each in India. Necessary proof of documents needed to be furnished.	We understand that similar projects means any smart city ICCC project or any traffic project that comprises ATCS or Traffic Enforcement or ICCC as part part of the complete scope. Please confirm.	Similar projects means any projects which shall involve road traffic signaling management system (including VAC, ATCS etc) or traffic violation enforcement system or both.
74	3.2b, page 8	The respondent should be operational continuously in the field of Intelligent Traffic Management System (ITMS) - Design, Development, Implementation, Operations & Maintenance for the last 3 (Three) years as on the date of submission.	In case of consortium can this experience come from any member of the consortium	Yes
75	3.2c, page 8	The respondents may be an independent single entity or a joint venture or a consortium/association of entities;	Can the consortium member be changed during the RFP while the Lead member stays the same	Yes
76	3.2d, page 8	In the case of a joint venture/consortium the name of the entity that is the “Lead Partner/Lead Member” should be clearly stated in the EOI.		
77	3.2g, page 8	The respondent shall have implemented at least two similar projects of atleast 20 Cr each in India. Necessary proof of documents needed to be furnished.	Can we show projects under implementation or projects from consortium	Yes
78	Volume 1; 3.2 Eligibility, page 9	g) The respondent shall have implemented at least two similar projects of atleast 20 Cr each in India. Necessary proof of documents needed to be furnished.	Requesting you to modify the clause to: g) The respondent shall have implemented at least two similar projects of atleast 7 Cr each in India. Necessary proof of documents needed to be furnished. Justification: Would enable broader participation.	Please read the amended Clause as "Experience of having successfully completed similar works in India during last 5 years with either of the following: - a. Three similar completed works costing not less than the amount equal to 10.4 Cr. or b. Two similar completed works costing not less than the amount equal to 13 Cr. or c. One similar completed work costing not less than the amount equal to 26 Cr." Similar projects means any projects which shall involve road traffic signaling management system (including VAC, ATCS etc) or traffic violation enforcement system or both.
79	Volume 1; 3.2 Eligibility, page	h) The respondent should have valid ISO 27001:2013(should have a valid certificate as on	Requesting you to modify the clause to:	EOI clause prevails
80	Volume 1; 3.2 Eligibility, page 9	Additional Criteria	Requesting you to modify the clause to: The OEM of ATCS shall have deployed at least 5 ATCS projects of 40 junction each on an average in India. Justification: This will ensure quality OEM participation.	Request not considered for EOI stage

81	Volume 2; 1.1.1 Traffic Signal Controller, page 17	The Traffic Signal Controller equipment shall be of minimum 32/64 bit microcontroller-based and shall have an advanced relay-based traffic signal lamp switching and a conflict monitoring facility to ensure that conflicting, dangerous or disallowed traffic signal displays.	Requesting you to modify the clause to: The Traffic Signal Controller equipment shall be of minimum 64 bit microcontroller-based and shall have an advanced solid state traffic signal lamp switching module and with the ability to program any combination of traffic signal stages, phases, and junction groups with conflict monitoring facility Justification: Relay based switching is not durable and considering the duration of the project a better technology shall be used. Also in later sections MOSFET based switching has been asked to which we comply.	This is minimum requirement specified, the bidder is free to propose equipment with better specification.
82	Volume 2; 1.1.1 Traffic Signal Controller, page 17	Additional Clause	Requesting you to add this clause: ATCS shall use standard communication protocols UG405 or NTCIP. It should also provide the functionality of integration with on-ground hardware of any third-party traffic controller that is UG405 or NTCIP compliant. Justification: The controller and control room application communication standard compliance would ensure no-vendor lock-ins and easy interoperatibility in future	Request not considered for EOI stage
83	Volume 2; 1.1.16 Central traffic management software with ATCS, page 20	Additional Clause	Requesting you to add travel sensors such as Bluetooth & WiFi sensors to add the real time capturing of travel times in various links for better optimisation in ATCS system.	Request not considered for EOI stage
84	Volume 2; 1.1.16 Central traffic management software with ATCS, page 20	Additional Clause:	Requesting you to kindly add the following clause : The ATCS system shall be capable to use Machine Learning based prediction modelling which shall have the ability to predict, forecast and smartly manage the traffic pattern at each junction over the next few minutes, hours or 3-5 days and just in the current real time on the central ATCS server. The models shall be calibrated once the system stabilizes after a duration of 2-3 months after the deployment. The prediction function shall use a network model resulting in consistent flows across a group of junctions. Justification: ML will improve optimisation efficiency of the system and help devising better strategies for controlling traffic by forecasting demands.	Request not considered for EOI stage
85	Volume 2; 1.1.16 Central traffic management software with ATCS, page 20	Additional Clause:	The proposed ATCS application shall have capabilities (in future) to optimise traffic signals on the basis of online travel time data such as Google, TomTom as well. The ATCS system shall fuse data from all available sources such as ANPR, Google, Detectors, etc. and use it for optimisation. The network model shall be calibrated by using multiple data sets.	Request not considered for EOI stage
86	Volume 2; 1.1.16 Central traffic management software with ATCS, page 20	Additional Clause:	Requesting tou to add this clause: Optimization mode - strategic: The system shall have a short term traffic state prediction model which continually estimates the state of the network, in terms of traffic flows and travel times. The traffic flows and travel times are to be input into an offline microscopic traffic flow simulation model. If significant changes in the network state are observed, traffic engineers shall be able to run simulation models to perform what-if analysis on pre-defined traffic management strategies. The controller shall send the classified counts to the ATCS application is order to enable this functionality. Justification: The model based optimisation would result in better system efficiency as compare to the hueristic one.	Request not considered for EOI stage
87	Volume 2; 1.1.16 Central traffic management software with ATCS, page 20	Additional Clause:	Requesting you to kindly add the following clause : Simulation Model: The adaptive traffic control system shall be provided with a simulation model based real time traffic flow modelling capability with the capacity to calculate traffic flows, OD movements, and queues and turning movement along entire primary road transport network in the defined study area covering the ATCS junctions and beyond. -The simulation software shall assist evaluating potential traffic control strategies in case of any anomalies and identify the appropriate strategies for the traffic control. - Calibrated traffic simulation models for AM peak, PM peak, inter-peak and off-peak for weekdays and peak and off-peak for Saturday & Sundays covering all the ATCS junctions shall be provided -Shall have the ability to predict, forecast and estimate the traffic pattern across the signals over the near-term future (e.g T+5, T+10, T+15, T+30 mins ... T + 1 hour). It shall also use machine learning for better accuracies. Justification: New clause as per city requirements. This would enable the enahnced system to use machine learning based prediction along with the validations.	Request not considered for EOI stage

88	Volume 2; 1.1.16 Central traffic management software with ATCS, page 20	Additional Clause:	Requesting you to add this clause: The system shall have network model based optimiser which uses a combination of a network-wide online traffic simulation model and an AI-based optimisation engine to determine optimal signal timings in order to minimise the overall delay incurred by vehicles and to maximise vehicle throughput. Justification: Model based optimisation is the most advanced kind of optimisation which looks at the entire network holistically and drive best possible outcomes for the system.	Request not considered for EOI stage
89	Volume 2; 1.1.16 Central traffic management software with ATCS, page 20	Additional Clause:	Requesting you to add this clause: Gating: A few junctions in a road network are critical due to simultaneous high demand for conflicting traffic streams. Congestion at these junctions is higher than other junctions where high demand exists only for fewer traffic streams and the available green time can be redistributed to mitigate congestion to some extent. This leads to a severe queue build up at critical junctions. Gating is a strategy that artificially reduces the capacity of traffic signals at junctions upstream of the critical junction using traffic signals such that that queues are re-distributed across multiple junctions thereby reducing the total delay across junctions for critical traffic streams. The proposed ATCS system shall have the capability to optimise signal timings at a group of junctions incorporating gating. Specifically, the user shall be able to select the upstream junctions where the queues are to be relocated based on available storage capacity and the system should be able to determine optimal signal timings at those junctions to implement gating. Justification: Gating will assist in optimzing traffic at critical junctions & will lead to better network perfromance	Request not considered for EOI stage
90	Volume 2; 1.1.16 Central traffic management software with ATCS, page 20	Additional Clause:	Request you to add the following clause: The application shall interface with a popular microscopic traffic flow simulation software for pre and post implementation analysis which shall be based on real time traffic flow modelling capability with the capacity to calculate traffic flows, OD movements and turning movements along entire primary road transport network. In addition, the simulation should interface with an offline instance of the ATCS system in order to carry out what-if analyses of traffic control strategies. The system should be able to provide an estimate of a Performance Index of the chosen strategy versus alternative strategies. The simulation model along with ATCS shall thus assist the traffic engineers / police to identify the best possible strategy in planning for any unusual / unprecedented event. Justification: The online simulation model will assist traffic police/operators to visualise the on-ground issues better and act pro-actively by evaluating multiple strategies.	Request not considered for EOI stage
91	Volume 2; 1.1.17 Data entry to Local Controller; Technical Specifications, page 25	CPU: 32/64 Bit Microcontroller clocked at minimum of 20MHz.	Requesting you to modify the CPU: **64 Bit Microcontrolle**r clocked at minimum of 1.2GHz. Justification: This would enable to controller to run faster and process more data and complex logic quickly resulting in enabling of AI based optimisation	This is minimum requirement specified, the bidder is free to propose equipment with better specification.
92	Volume 2; 1.1.17 Data entry to Local Controller; Technical Specifications, page 25	2. Program memory: Minimum of 512K Flash and 128K RAM	Requesting you to modify this clause to: RAM: 2 GB minimum LPDDR4 SDRAM and 16GB of storage. Justification: More RAM is needed to process the detailed vehicle by vehicle traffic data generated by detectors. Otherwise the data would be lost.	This is minimum requirement specified, the bidder is free to propose equipment with better specification.
93	Volume 2; 1.1.17 Data entry to Local Controller; Technical Specifications, page 25	12. Vehicle detector input: Minimum of 16 optically isolated inputs for Vehicle detection, Compatible to Inductive loop sensors Camera Based detectors and Radar based detectors	Requesting you to kindly modify the clause to: Communication with detector: Shall be able to take detailed traffic data from detectors via ethernet over TCP/IP or using RS232 or RS484 port. Justification: The I/O based detection input is an obsolete way of taking data from detectors. It can only support vehicle presence data however the advancec detectors suggested in the RFP will be able to share the detailed traffic data via ethernet or other modern modes of communication.	EOI clause prevails

94	Volume 2; 1.1.17 Data entry to Local Controller; Technical Specifications, page 25	Additional Clause	Requesting you to add this clause: Media interfaces: 2 × USB 2.0 Ports 2 × USB 3.0 Ports 2.4 GHz and 5.0 GHz IEEE 802.11b/g/n/ac wireless LAN, Gigabit Ethernet Justification: These are advanced interfaces required for integrating with ATCS components in future.	Request not considered for EOI stage
95	3.2 Eligibility Clause (g), Page no. 9	The respondent shall have implemented at least two similar projects of atleast 20 Cr each in India. Necessary proof of documents needed to be furnished.	Kindly refer to the clause 2.1 page number 7. It is clear that operation and maintenance for a period of 5 years is an integral part of the project. We wish to state that the Eligibility conditions in EOI should be reflection of scope of work. Eligibility conditions asks for experience in "implementation" however "operationand maintenance" which is a very important and integral part of the scope of work has not been asked for. ITMS is the most visible infrastructure on road interactions. Even if a single component like Traffic light (Red Yellow or Green) or a Timer goes defunct; it is noticed by road users. In fact, maintenance of Traffic Signal System must be given the utmost importance for its smooth functioning. The best installed traffic signalling system, if not maintained properly would not be appreciated by authorities and Road users. In the present EOI document 03years' maintenance of traffic signals should be asked for. As a result the bidders will use good quality of products which will definitely give maximum output with less maintenance. It is requested to add this point in Eligibility Criteria & shortlist a bidder who have minimum three years' experience of maintenance of traffic Signals.	The details shall be published in the RFP phase.
96	EOI_ITMS.pdf Page 3	Last date for submission of EOI: 19/10/2020, 05:00 PM	We request you to kindly extend the EOI submission date by 2 weeks so that we may get enough time for site visit which will help us in EOI document prepartaion.	EOI clause prevails