



उत्तर प्रदेश मेट्रो रेल कॉरपोरेशन लि०

UTTAR PRADESH METRO RAIL CORPORATION LTD.

(Formerly Known as Lucknow Metro Rail Corporation Ltd.)

(भारत सरकार एवं उत्तर प्रदेश सरकार का एक संयुक्त उपक्रम)

(A JOINT VENTURE OF GOVT. OF INDIA & GOVT. OF U.P.)

No. UPMRC/Elect/Escalators/KNPAGE-04

Date: 28.10.2020

To,

All Bidders

Sub: Addendum-1 and reply to Pre-bid Queries to Tender Package KNPAGE-04

Ref: Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Escalators including Maintenance of 02 (two) Years during Defect Liability Period (DLP) and 01 (one) year comprehensive Annual Maintenance beyond DLP Period for Kanpur (Corridor I & II) & Agra (Corridor-I) Mass Rapid Transport System Project Phase-I.

Dear Sir,

With reference to the above subject, Addendum-01 and Reply to pre-bid queries of tender KNPAGE-04 is attached herewith.

Thanking You,

Regards,



(Chief Electrical Engineer/Projects-II)

(AN ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 Certified Company)

Administrative Building, Near Dr. Bhimrao Ambedkar Samajik Parivartan Sthal, Vipin Khand, Gomti Nagar, Lucknow-226010

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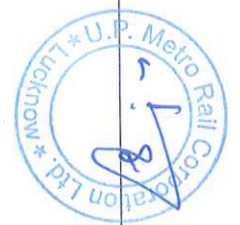
Reply to Pre-Bid Queries KNPAGE-04

Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Escalators including Maintenance of 02 (two) Years during Defect Liability Period (DLP) and 01 (one) year comprehensive Annual Maintenance beyond DLP Period for Kanpur (Corridor I & II) & Agra (Corridor-I) Mass Rapid Transport System Project Phase-I under the Contract KNPAGE-04

UPMRC's no.	Section	Page no.	Clause No.	Existing Clause	Bidder's Clarification	UPMRC's Reply						
1	Volume 1: KNPAGE-03/NIT	16 to 17	Annexure - 2 & 2A Financial Data.	<p align="center">ANNEXURE-2 Financial DATA</p> <table border="1"> <tr> <td>10</td> <td>Annual turnover (from construction)</td> <td>(From)</td> </tr> <tr> <td>11</td> <td>Gross Annual Turnover</td> <td>(From)</td> </tr> </table>	10	Annual turnover (from construction)	(From)	11	Gross Annual Turnover	(From)	We can provide Annual Turnover of Company as per Balance Sheets. Please confirm same will be considered as Annual Construction Turnover.	Your understanding is correct. Please follow Tender Condition
10	Annual turnover (from construction)	(From)										
11	Gross Annual Turnover	(From)										
2	Volume - 1	5 to 6	1.1.4.2 Minimum Eligibility Criteria:	<p>Specific work Experience Work Experience: The tenderers will be qualified only if they satisfy the Work Experience criteria for Similar Work** as given below during last seven years ending 30.06.2020." At least One (1) "Similar Work**" of value of Rs 64 Crores or more if the above "Similar Work**" of value Rs 64 Crores or more has been done by the foreign partner of JV/ Consortium and was done in the country of the foreign partner then in addition to this work, the foreign partner must have done at least one Similar Work equal to or more than Rs 32 Crores outside the country of the foreign partner. OR Two (2) "Similar Work**" each of value of Rs 40 Crores or more if both the above the "Similar Work**" of value Rs 40 Crores or more has been done by the foreign partner of JV/ Consortium, then either at least one of these two work should have been done outside the country of the foreign partner... and if not, then in addition to this the foreign partner must have done at least one Similar Work equal to value of Rs 32 Crores or more outside the country of the foreign partner. OR Three (3) "Similar Work**" each of value of Rs 32 Crores or more if all the above three Similar Work of Rs 32 Crores or more or two out of three works have been done by foreign partner of JV, then either at least one of these three work should have been done outside the country of the foreign partner.</p>	<p>We have Major Experiences in Metro Rail Projects which can meet eligibility criteria of one/three similar works. Even though the commencement date of the works is slightly (9 Months) before the starting dates of last 7 years period. We request you to kindly clarify if the completion works during last 7 years of similar works will be considered for evaluation irrespective of commencement date of works. Or otherwise we request you to kindly extend the duration to "during last 10 years" from 7 years as mentioned.</p>	Please Refer Addendum-1						
3	Volume 4 5.2 General Requirements	PS- Page 31 of 201	5.2.12	b) Tracks and Hand rail Guide- Zinc plated with stainless profiles or Stainless steel.	b) Tracks and Hand rail Guide- Zinc plated with stainless steel profiles or Stainless steel.	Please Refer Addendum-1						
4	Volume 4 5.3 Mechanical Requirements	PS- Page 33 of 201	5.3.2	Truss shall be supported at both ends (top and bottom supports), no intermediate support shall be provided for rise upto 6500 mm and one intermediate support shall be provided for 6500 mm-Rises 9500mm in consultation with civil contractor with resilient supports and bearing plates. The provision of bearing plates and resilient supports shall be included in this Contract but shall be co-ordinated with the respective Civil Contractors. Resilient supports shall be designed for the purpose of preventing the transmission of noise and vibration other station structure. The truss shall be designed to support the dead weight of the escalator plus the passenger load. Considering the passenger load, the maximum calculated deflection shall not exceed the limit/value prescribed by EN115 (Latest Edition).	Truss shall be supported at both ends (top and bottom supports), no intermediate support shall be provided for rise upto 6500 4650 mm and one intermediate support shall be provided for 6500 4650 mm-Rises 9500mm in consultation with civil contractor with resilient supports and bearing plates.	Please follow Tender Condition						



5	Volume 4 5.3 Mechanical Requirements	PS: Page 34 of 201	5.3.5	<p>Non-slip, ribbed aluminum surfaced comb of galvanized with yellow – coloured diecast. The alternatives like coloured fiber, for the Comb plate is subject to the Employers acceptance at the design stage. Corrosion resisting aluminum alloy comb teeth shall be provided at both landings of each escalator. The comb plate structure shall withstand a load of 6000N/m² with a deflection not exceeding 2.0 mm. The teeth of the combs shall properly mesh with the cleats on the step treads and shall be designed to permit simple replacement in sections. The yellow colour light in the pits shall be provided to demarcate the moving and the non-moving parts of the escalators. The escalator Contractor shall make suitable provision in escalator panels for the UPS power connection from the station UPS for comb light, pit light, etc.</p>	<p>Non-slip, ribbed aluminum surfaced comb of galvanized with yellow painted – coloured diecast. The alternatives like coloured fiber, for the Comb plate is subject to the Employers acceptance at the design stage.</p>	Please Refer Addendum-1
6	Volume 4 5.3 Mechanical Requirements	PS: Page 34 of 201	5.3.7	<p>Escalator landings shall be provided with easily openable, hinged landing plates suitable for access to the drive mechanism with some locking arrangement. There should be antitheft provision in the landing plates of SS balustrade escalators whose design should be reviewed at design stage. Landing floor plates shall have a non-slip etched stainless steel surface with preferably square checkered finish whose groove depth should be minimum 1mm. Top surface of landing floor plate must be able to withstand wear and tear during heavy usage of escalator for 15 years which will be effective from issuance of taking over certificate, construction details will be reviewed during detail design stage. Lifting handles shall be provided to facilitate opening of the landing plate. Means, such as hydraulic cylinders, shall be provided so that the force required to lift the floor plate is not more than 200N. The floor plate shall withstand a uniformly distribution load of 6000 N/m² over its entire area, the deflection shall not exceed 4mm during load application and there shall be no permanent deformation after the load is removed.</p>	<p>Escalator landings shall be provided with easily openable, hinged landing plates suitable for access to the drive mechanism with some locking arrangement. There should be antitheft provision in the landing plates of SS balustrade escalators whose design should be reviewed at design stage. Landing floor plates shall have a non-slip etched stainless steel surface with preferably square checkered finish whose groove depth should be minimum 1mm.</p>	Please follow Tender Condition
7	Volume 4 5.3 Mechanical Requirements	PS: Page 35 of 201	5.3.8	<p>(d) Skirt panels: Minimum 2.0 mm thick stainless steel, grade SS-304.</p>	<p>Skirt panels: Minimum 2.0 mm thick stainless steel, grade SS-304</p>	Please follow Tender Conditions
8	Volume 4 5.3 Mechanical Requirements	PS: Page 35 of 201	5.3.8	<p>hairline finish, with a material of low coefficient of friction such as Teflon or equivalent as reviewed without objection by the "Engineer" applied on the surface. Appropriate type lubrication dispenser shall be provided on both sides of maintenance step(s) for lubrication of moving steps and skirts.</p>	<p>hairline finish, with a material of low coefficient of friction as per EN115 such as Teflon or equivalent as reviewed without objection by the "Engineer" applied on the surface. Appropriate type lubrication dispenser shall be provided on both sides of maintenance step(s) for lubrication of moving steps and skirts.</p>	Please follow Tender Conditions



9	Volume 4 5.3 Mechanical Requirements	PS: Page 35 of 201	5.5.9	(a) The distance between the inner decking immediately below the handrail shall not be less than 1150 mm (with tolerance of +0.4mm to -2mm).	Please Refer Addendum-1
10	Volume 4 5.5 Steps and Step Chains	PS: Page 37 of 201	5.5.6	The design of the fixing of the step to the step axle including detail of bushing, pin or any other means, shall be of proven design and have been in used for an extended period in existing mass transit system(s) at a speed of 0.65 m/s. The fixture shall permit quick and easy removal of step without dismantling any part of the step chain and the balustrade.	Please Refer Addendum-1
11	Volume 4 5.5 Steps and Step Chains	PS: Page 37 of 201	5.5.7	The step chain pin pressure of all escalators shall not exceed 27 N/mm ²	Please follow Tender Conditions
12	Volume 4 5.6 Drive Mechanism	PS: Page 38 of 201	5.6.6	A data plate indicating the brake torque, in Newton-meters shall be provided. Provision for testing the brake torque shall be provided.	Please follow Tender Conditions
13	Volume 4 5.6 Drive Mechanism	PS: Page 39 of 201	5.6.13	The overall efficiency of the combined motor and gearbox shall not be less than 82% at full load which shall be demonstrated by the contractor during Prototype testing.	Please follow Tender Conditions
14	Volume 4 5.6 Drive Mechanism	PS: Page 39 of 201	5.6.15	Escalators shall be equipped with auxiliary brake and its operations should be as per EN115 Resistance boxes used for dynamic braking of escalator shall be installed inside the truss of escalator to facilitate easy Removal of heat generated.	Please follow Tender Conditions



15	Volume 4 5.21. Accessories	PS: Page 51 of 201	5.21	Two sets of keys for each type of by-pass switch.	Two sets of keys for each type of by-pass switch.	Please follow Tender Conditions
16	Volume 4 5.23 Variable Speed Control/Drive	PS: Page 52 of 201	5.23	Variable speed control/drive shall be provided. The control shall be integrated with the escalator control. It shall be able to operate the escalator at nominal speed of 0.65 m/s and reduced service (rated) speed of 0.50m/s, with all other requirements and performance remain unchanged. An easily accessible manual change-over switch, with clear label to the "Engineer" acceptance, for selecting the normal and reduced speed, shall be provided in the controller. (a) Service (rated) speed - Nominal 0. 65m/s and 0. 5 m/s	Variable speed control/drive shall be provided. The control shall be integrated with the escalator control. It shall be able to operate the escalator at nominal speed of 0.65 0.5 m/s and reduced service (rated) speed of 0.50 0.2m/s, with all other requirements and performance remain unchanged. An easily accessible manual change-over switch, with clear label to the "Engineer" acceptance, for selecting the normal and reduced speed, shall be provided in the controller. (a) Service (rated) speed - Nominal 0-65m/s and 0. 5 m/s	Please refer Addendum-1
17	Volume-1 NIT	9	1.1.4.2 A.1 Specific work Experience	Work Experience: "The tenders will be qualified only if they satisfy the Work Experience criteria for Similar Work" as given below during last seven years ending 30.06.2020:" At least One (1) Similar Work** of value of Rs 64 Crores or more If the above "Similar Work" of value Rs 64 Crores or more has been done by the foreign partner of JV Consortium and was done in the country of the foreign partner then in addition to this work, the foreign partner must have done at least one Similar Work equal to or more than Rs 32 20 Crores outside the country of the foreign partner. i) We have been successfully executing various Similar projects in Consortium with our Group Company which was responsible for Supply and Manufacturing, hence the credentials for Supply and Manufacturing are also available with our Group Company only. We wish to inform you that, now we have set up 'state of the art' manufacturing facilities in India to support Government's 'Make in India' initiative. We are also supplying to other Metro projects in India from our India Factory. Therefore, in line with GoI MoF DoE order for public procurement (No1) dated 23.07.2020, we wish to participate in this project as a Sole Bidder and fulfil all obligations under the contract with our own in-house capabilities. Hence we request you to allow us use the credentials of our group company for qualification purpose and allow us to participate as a sole bidder in this tender. As we both are Group Companies and function under the same umbrella of our Parent Company, the product, processes, design and quality parameters will exactly be the same while supplying from India.	We request you to amend the clause as follows to enable us to participate in this tender:- Work Experience: "The tenders will be qualified only if they satisfy the Work Experience criteria for Similar Work" as given below during last seven years ending 30.06.2020:" At least One (1) Similar Work** of value of Rs 64 Crores or more If the above "Similar Work" of value Rs 64 Crores or more has been done by the foreign partner of JV Consortium and was done in the country of the foreign partner then in addition to this work, the foreign partner must have done at least one Similar Work equal to or more than Rs 32 20 Crores outside the country of the foreign partner. i) We have been successfully executing various Similar projects in Consortium with our Group Company which was responsible for Supply and Manufacturing, hence the credentials for Supply and Manufacturing are also available with our Group Company only. We wish to inform you that, now we have set up 'state of the art' manufacturing facilities in India to support Government's 'Make in India' initiative. We are also supplying to other Metro projects in India from our India Factory. Therefore, in line with GoI MoF DoE order for public procurement (No1) dated 23.07.2020, we wish to participate in this project as a Sole Bidder and fulfil all obligations under the contract with our own in-house capabilities. Hence we request you to allow us use the credentials of our group company for qualification purpose and allow us to participate as a sole bidder in this tender. As we both are Group Companies and function under the same umbrella of our Parent Company, the product, processes, design and quality parameters will exactly be the same while supplying from India.	Please follow Tender Condition



18	Vol-4-1 NIT	10	1.1.4.2.A.2 Experience of heavy duty Elevators	<p>Experience of Design, Manufacture, Supply, Installation, Testing & Commissioning of at least 50 Elevators for the Public rapid transit system like Metro, LRT, Mono-rail, Railways, Airport or large commercial complexes successfully completed during last 7 years.</p> <p>OR</p> <p>If the sole Tenderer or any/all members of JV/Consortium constituting the Tenderer is/are from foreign country, then the member responsible for manufacturing & supplying of elevator should have an international experience of manufacturing and supplying minimum 40 similar elevators in India or one country excluding the country of the origin. Similar Elevators implies elevators for the Public rapid transit system like Metro, LRT, Mono-rail, Railways, Airport or large commercial complexes.</p>	<p>We have been successfully executing various similar projects in Consortium with our Group Company which was responsible for Supply and Manufacturing. Hence the credentials for Supply and Manufacturing are also available with our Group Company only.</p> <p>We wish to inform you that, now we have set up 'state of the art' manufacturing facilities in India to support Government's 'Make in India' initiative. We are also supplying to other Metro projects in India from our India Factory. Therefore, in line with GoI MoF DoE order for public procurement (No.1) dated 23.07.2020, we wish to participate in this project as a Sole Bidder and fulfil all obligations under the contract with our own in-house capabilities.</p> <p>Hence we request you to allow us to use the credentials of our group company for qualification purpose and allow us to participate as a sole bidder in this tender. As we both are Group Companies and function under the same umbrella of our Parent Company, the product, processes, design and quality parameters will exactly be the same while supplying from India.</p>	Please follow Tender Condition
19	Vol-4-PS	52	5.2.3	<p>Operating speeds of the escalators shall be as follows:- (a) Service (rated) Speed - Nominal speed 0.5 m/s. (b) Maintenance / idling / Crawling Speed - Less than 0.2m/s.</p> <p>Variable speed control/drive shall be provided. The control shall be integrated with the escalator control. It shall be able to operate the escalator at nominal speed of 0.65 m/s and reduced service (rated) speed of 0.50 m/s, with all other requirements and performance remain unchanged.</p>	<p>Bidder requests clarity & confirmation on the nominal speed requirement for Escalators. As per Bidder's understanding nominal speed should be 0.5 m/s and not 0.65 m/s.</p> <p>Please confirm.</p>	Please refer Addendum-1
20	Vol-4-PS	33	5.3.1	<p>Structural truss shall be of sufficient strength to carry the dead weight of the escalator which shall include any exterior claddings and decking extensions plus passenger load. Passenger loading shall be assumed as 5000 N/m² (load carrying areas = nominal width of escalator x distance between supports). The truss shall be designed to retain the steps and the running gear should the track system fails. The truss shall also be designed to support an additional load of the outer cladding panels and truss claddings up to a maximum load of 300N/m².</p>	<p>Since only 1.5mm thick cladding is asked for hence a truss design on 120N/m² is sufficient. 300N/m² is overdesign for 1.5mm thick cladding.</p> <p>Bidder requests to consider this and amend the requirement accordingly.</p>	Please refer Addendum-1
21	Vol-4-PS	34	5.3.7	<p>Escalator landings shall be provided with easily openable, hinged landing plates suitable for access to the drive mechanism with some locking arrangement. There should be anti theft provision in the landing plates of SS balustrade escalators whose design should be reviewed at design stage. Landing floor plates shall have a non-slip etched stainless steel surface with preferably square checkered finish whose groove depth should be minimum 1mm. Top surface of landing floor plate must be able to withstand wear and tear during heavy usage of escalator for 15 years which will be effective from issuance of taking over certificate, construction details will be reviewed during detail design stage. Lifting handles shall be provided to facilitate opening of the landing plate. Means, such as hydraulic cylinders, shall be provided so that the force required to lift the floor plate is not more than 200N. The floor plate shall withstand a uniformly distribution load of 6000 N/m² over its entire area, the deflection shall not exceed 4mm during load application and there shall be no permanent deformation after the load is removed.</p>	<p>Since Comb plate finish as per tender requirement is for ribbed aluminum, hence bidder requests that the same finish be maintained for landing plate as well.</p> <p>Please confirm if we can provide Ribbed Aluminium Comb plate & Landing Floor.</p>	Please follow Tender Condition



22	Vol-4 PS	36	5.4.6	The newel stands shall be of sufficient rigidity and suitably braced to the main structure of the truss to prevent undue distortion. Provision shall be made to permit checking of alignment of the newel wheels/roller on site.	Bidder would like to state that Newel Rollers will be used.	It will be dealt during design state. Please follow tender condition.
23	Vol-4 PS	36	5.4.7	The handrail entry boot shall be made up of Stainless Steel sheets having a thickness of 1.6mm.	Bidder requests that Handrail entry boot requirement be kept to 1.5mm thick Stainless steel sheets which is ample for MRTS applications. Please confirm.	Please refer Addendum-1
24	Vol-4 PS	37	5.5.5	Step chains shall be of the endless roller type located on both sides of the moving step. The chains shall be provided in matched lengths and be of high quality steel construction incorporating links, pins, bushes, axles and rollers with three pitches between adjacent rollers. The chain rollers shall be located inside the chain links with relieving curvat four locations (top-left, top-right, top-bottom-left and top-bottom-right) and shall be easily replaceable without dismantling the links. All chain pins shall be clipped. Each step chain shall be provided with an automatic tension device to ensure proper tension under varying load conditions. A method shall be provided to shorten the chain by one step to compensate for chain elongation.	Bidder would like to confirm that since the Step Chain location requirement is inside the Chain links as per tender requirement, hence for such a design the need for relieving curvat is not necessary as per design. Bidder's escalator design will be without the relieving curve at. Please confirm if this is acceptable.	Please refer Addendum-1
25	Vol-4 PS	38	5.6.6	A data plate indicating the brake torque, in Newton-meters shall be provided. Provision for testing the brake torque shall be provided.	Bidder requests to specify which type of data plate is required.	Traction Machine Name Plate required
26	Vol-4 PS	43	5.9.5	Remote Monitoring system (RMS) shall be provided by the escalator contractor for the monitoring of Escalators.	Pls confirm the cabling will be in your scope	Please follow Tender Condition
27					Bidder request to consider if we can provide RS485 interface + MODBUS protocol + 2x4 dry contacts and cables and terminals in escalator controller instead of PC based RMS system The connection cable to customer control center (ITB, BMS), monitor computer and software need to be provided by Customer. Please confirm if acceptable.	Please follow Tender Condition



28	Vol-4 PS	44	5.10.2	<p>The following monitoring function shall be provided for RMS.</p> <ol style="list-style-type: none"> Power On /Off status indicator Status of Starter: Key Operation: Whether the Starter key is on or off; Current operation status: Automatic/Maintenance/ Fault (breakdown) status Current Operation mode status: Normal operation/ Fireman operation/ Seismic operation. Status of the Emergency Stop Operation: Whether the Emergency Stop Push buttons have been pressed, in a crisis/panic situation Trip (fault) indicator for all faults with fault code (Should also include instructions to local operator / Controller to act in case of fault.) Safety switch tripped Location of tripped safety switch Up (escalators) direction indicator Down (escalators) direction indicator Start override indicator Speed of the escalator (0.0, 0.2,0.5 m/s) Running Time Trip Signal Log RMS Mode / Local mode Down time log Maintenance support (Maintenance Log, Maintenance Schedule & Non maintenance alarm.) Monthly Report with parameter jointly decided by employer & contractor History of different faults with code for min one month at OCC 	<p>1. Bidder will provide RS485 interface + MODBUS protocol + 2x4 dry contacts and cables and terminals in escalator controller.</p> <p>2. The connection cable to customer control center (ITB, BMS), monitor computer and software need to be provided by Customer.</p> <p>3. Bidder will provide remote/local control switch.</p> <p>Please confirm if acceptable.</p>	Please follow Tender Condition
29	Vol-4 PS	45	5.10.6	<p>The Contractor shall be responsible for the provision of all conduits, trunking, cabling and interface terminal board (ITB) in connection with the installation of the RMS except that the conduits and trunking from the Escalator Controller in the pit to the Station Control Room will be provided by the respective Electrical Contractor. The Contractor shall coordinate and interface with Electrical Contractor and/or his sub-contractor in association with conduits/trunking routing and sizing requirement.</p>	<p>Bidder requests clarity & elaboration on the specific requirement of conduits as per tender.</p> <p>Do we need to provide inside cables of escalator in conduit or only escalator to controller cables? Please confirm.</p>	It will be dealt during design stage. Please follow Tender Condition
30	Vol-4 PS	46	5.12.1	<p>The space required for machinery and other accessories shall be provided by the Civil Contractors in accordance with the co-ordinated requirements of the Contractor. Controllers and other accessories such as incoming isolators, ITBs, switches, shall be housed outside / inside the truss in Enclosure of controller below the escalator inclined section or in wall recess/closet besides the upper landing. Further wiring work excluding conduits/trunking from the incoming isolators to escalator equipment shall be provided by the Contractor. The Contractor shall co-ordinate with Civil contractor for the layout of the equipment in the wall recess/closet.</p>	<p>Both options of either inside or outside truss controller is given in the tender which also contradicts with clause 5.13.2</p> <p>Bidder requests clarity on the controller location.</p>	It will be dealt during design stage. Please follow Tender Condition
31	Vol-4 PS	48	5.13.2	<p>Cables, trunkings, conduits and conduit fittings necessary for the power, control and lighting circuits shall be installed in accordance with the latest edition relevant BIS standards.</p>	<p>Bidder will be provide cables, trunkings, conduits and conduit fittings in accordance with GB/T 8774 standards. As per these standards, PVC sheathing, Temperature range: Min -25C° up to Max 80C°. Color: Black, Protection degree: IP68 & Conduit material: galvanized steel-strip</p> <p>Please confirm if this is acceptable.</p>	Please follow Tender Condition



32	Vol-4 PS	48	5.13.2	Generally the distance between Escalator and Escalator Control Panel (Controller Cabinet) shall not be more than 30 meters. However, depending on site conditions, it may vary and No additional payment on account of any variation in distance will be made to the contractor.	30m is too much for distance for controller and escalators . We feel that 10 to 15m is sufficient for such requirement as per experience .	It will be dealt during design stage. Please follow Tender Condition
33	Vol-4 PS	48	5.13.3	Trusses, machines, motors and all other non-current carrying metal parts and components shall be effectively earthed by the Contractor to the incoming earth in the Isolator provided by designated contractor.	Instead of Isolator, Bidder will provide Cam Switch ON/OFF Type. Please confirm if this is acceptable.	Query not clear. Please follow Tender Condition
34	Vol-4 PS	48	5.13.6	Controllers shall be provided to control starting, rotational direction and stopping of escalator motors. The controller shall bring escalators to a stop in the event of activation of any safety device, power failure, or normal shut down. Controllers shall be provided with the double door arrangement such that the small door (which can be closed with a lock & key) is having provisions of Mushroom Type Emergency Stop Button, Escalator Speed Selection Switch (0.65m/sand 0.50m/s), Fault Reset Switch, RS485 Port, USB Port, Alpha Numeric Escalator LCD Fault Display, Mimic Panel to check and see various historical faults and parameters of escalator with date and time stamping facility etc. (Details to be finalized during Design stage) accessible to through the small door for the normal operation of escalator and larger door is for the maintenance purpose only. The controllers shall be designed in such a way that power and control circuit is physically separate, so as to ensure safety of the maintenance staff. The control and electric wiring diagram to be laminated and provided on the controller. A copy of main diagram and Maintenance manual shall be provided in the controller.	Note that nominal speed as per tender is 0.5m/s. Hence Escalator speed selection switch will not be applicable in this case. Controllers will be provided with single door arrangement with lock and key & IP55 rating which is as per Bidder's OEM standard. Copy of main diagram and maintenance manual shall be provided by Soft copy. Please confirm on these points.	It will be dealt during design stage. Please follow tender condition
35	Vol-4 PS	49	5.13.11	The power and control wiring shall be laid out neatly and terminated with suitable cable termination sleeves. All terminals and cables shall be labeled and marked for identification. All power wiring shall be with the color coding for the phases i.e Red, Yellow, Blue; and Black for Neutral and Green for Earth. All live terminals from other sources shall be properly protected and identified with yellow warning signs.	Bidder would like to confirm that for all the Power wiring, the Colour coding will be as per Bidder's (OEM) Standard. Please confirm if the same is acceptable.	Please follow Tender Condition



36	Vol-4 PS	49	5.13.12	<p>The escalator controller shall be housed in a 1.5mm thick, IP 54 (Ingress protection of panels shall be achieved through good quality polyurethane gasket suitable for continuous use from -30°C to 80°C) spray painted or galvanised sheet (with minimum 85 µm thick Galvanising) metal cabinet with hinged door, lockable with a dedicated key. Escalator controller shall be housed in an IP54 spray painted, 1.5mm thick sheet (with minimum 85µm thick metal cabinet with hinged door (IP55), lockable with a dedicated key. The operating buttons / switches etc. shall be provided in lockable enclosure to restrict access to authorized person only. The size of the controller cabinet shall be suitable for mounting into a wall closet of maximum dimensions 2000mm (width) x 2000mm (height) x 500 mm (depth) with doors and shall be suitable to house the incoming power supply isolators and ITBs.</p> <p>The contractor will have to suitably design the layout after due interfacing with other designated contractors and with the approval of "Engineer".</p> <p>Generally the distance between Escalator and Escalator Control Panel (Controller Cabinet) shall not be more than 30 meters. However, depending on site conditions, it may vary and No additional payment on account of any variation in distance will be made to the contractor.</p>	<p>Bidder requests confirmation on whether controller requirement is internal or external type controller.</p> <p>Bidder would like to state that all these functionalities can be managed with inside controller as well and hence bidder proposes that Inside Controller be accepted in follow Tender Condition tender.</p> <p>Please confirm.</p>
37	Vol-4 PS	49	5.14.1	<p>All control cables used shall be rated for minimum grade of 650 V and all power cables for minimum grade of 1000V.</p>	<p>Bidder would like to state that all control cables used shall be rated for minimum grade of 600 V and all power cables for minimum grade of 1000V.</p> <p>Please confirm if acceptable.</p>
38	Vol-4 PS	49	5.14.2	<p>The conductor shall be of stranded conductor composed of plain annealed copper wire complying with IEC 228, Class 2.</p>	<p>As per Bidder's Standard, Conductor material and design will be according to EN 60228, finely stranded, Class 5 Bare, finely stranded copper wires.</p> <p>Please confirm if this is acceptable.</p>
39	Vol-4 PS	49	5.14.3	<p>The insulation shall consist of an extruded layer of cross-linked polyethylene complying with IEC 502.</p>	<p>Insulation will be as per Bidder's Standard (Acc.to IEC 60502-1).</p> <p>Please confirm if this is acceptable.</p>



40	Vol-4-PS	49 & 50	5.14.5	<p>Fire retardant, low smoke, materials shall meet the following requirements:- (a) London Transport Executive Three Meter Cube Smoke Emission Test, using optical measuring instruments. The maximum value of absorbance AO (ON), AO (OFF) shall be 0.8 & 1.2 respectively. (b) The US National Bureau of Standard Smoke Chamber Test, used to evaluate plaque samples of materials of constant thickness. (NFPA-258 Smoke Generation of Solid Materials 1982). The maximum specific optical density shall be 170 under the non-polluted condition. (c) The flame propagating criteria of US IEEE Standard 383, with a minimum test short circuit time of five minutes, in the IEEE Standard 383 test. (d) IEC 332 Parts 1 and 3, Category B, tests on single and bunched cables under fire conditions. (e) Limiting Oxygen Index of at least 30, to ASTM D-2863. (f) A temperature index (TI) of 260°C to ASTM D-2863. (g) All insulation is to be moisture and heat resistant, with temperature ratings appropriate to the application conditions, and in no case lower than 90°C. (h) When a sample of the cable is subjected to a combustion test for the determination of the amount of halogen acid gases (other than hydrofluoric acid) as set out in IEC 754 - Part 1 the halogen acid evolved shall not exceed a maximum of 0.5%. Fire retardant materials shall meet the requirements of item (c), (d), (e), (f) and (g) only.</p>	<p>As per Bidder's Standard - Cable design must be based on EN50525-3-11 or EN50525-3-21. 1) Zero halogen - Acc. to IEC 60754 -1 2) Corrosivity of fire gases - Acc. to IEC 60754 - 2 3) Smoke density : Acc. to IEC 61034-2</p> <p>Design 1) Insulation Flame-retardant, self-extinguishing, halogen-free insulating material, concentrically applied. 2) Inner sheath Flame-retardant, self-extinguishing, halogen-free sheathing material, concentrically applied. 3) Outer sheath Flame-retardant, self-extinguishing, halogen-free sheathing material, concentrically applied. As per Bidder's Standard: 1) First screen With special aluminium film 2) Second screen :Tinned copper braided screen, approx. 85% coverage. 3) Outer sheath: special polyolefin compound or similar.</p> <p>Please confirm if the same is acceptable.</p>	<p>Please follow Tender Condition</p>
41	Vol 1 Annexure to ITT Annexure 4	21	Appendix G	<p>(c) Design Engineer - (i) Civil & Structural Engineer -</p>	<p>Bidder requests to consider the "Design engineer" position to be off site support / from our Factory and he will be available at site as and when required during the complete project cycle.</p> <p>Regarding the position of "Civil & Structural engineer": Bidder may not require full fledge profile personnel. Instead we may deploy the position of "Interface Engineer", who will be responsible for the co-ordination between employer civil & Structural team at site.</p>	<p>Please refer Addendum-1</p>
42	Vol. 2	25	44	<p>Deployment of Personnel by the Employer The Contractor shall deploy personnel sponsored by the Employer during the Contract Period in areas stipulated in the Employer's Requirements. The travel expenses, salary and allowances, boarding and lodging expenses of these sponsored personnel shall be borne by the Employer but the Contractor shall provide other facilities required for the purpose of performing their duties. The sponsored personnel shall be under the technical and administrative control of the Contractor.</p>	<p>Bidders proposes to delete this clause. Else specify the scope for providing the 'other facilities' in detail.</p>	<p>Please refer Addendum-1</p>
43	Vol. 3	15	15.6.1 15.6.2	<p>Site Facilities for the Employer's Representative The Contractor will be required to provide suitable accommodation for Employer's representative in Contractor's site office/work site. The accommodation for Employer's Representative shall include furniture, fan, air conditioner, drinking water facilities and suitable communication facilities.</p>	<p>Bidder may propose to construct the site office for their exclusive use and monitoring the progress of the project. Hence bidder requests to remove this clause.</p>	<p>Please follow Tender Condition</p>



44	Vol.3	15	15.8.1	<p>Offices for the Employer or the Employer's Representative Unless otherwise stated in the Contract, the Employer or the Employer's Representative may supply his own temporary accommodation on the Site at locations indicated in the Contract or in writing. The Contractor shall afford, provide and maintain free and unhindered access to such Employer or the Employer's Representative's Site offices and parking areas and for the Employer or the Employer's Representative's Site officers, contractors and workmen as may be necessary for installation, inspection, maintenance, repair and removal of the aforesaid Employer or the Employer's Representative's Site offices and the services thereto.</p>	<p>Bidder propose to remove this clause or remove the scope of providing the office for Employer. Else, kindly provide the exact details as below: 1. Area of the office, / Location from site. 2. Exact number of workstations.</p>	Please follow Tender Condition
45	Vol.4	45	5.10.5	<p>The RMS PC shall be used jointly to operate the functions of the Remote Monitoring and Control Systems of lifts also. The choice of size, system of display and background shall be furnished for the consent of the Employer or his representatives. The Contractor shall interface with Signaling and BMS Telecom contractor for integration of RMS system at SCR with Building Management System at underground stations. It is also the responsibility of escalator contractor to match protocol of escalator software with the software of equipment in OCC.</p>	<p>Bidder proposes to provide only RS 485 serial Data transmission protocol inside the escalator controller, however the PC (computer system with display) alongwith the cabling which is to be provided by the designated BMS contractor. Kindly note that matching of protocol & software of Escalator signals with different vendor's software will be difficult to us. Hence, we request to amend this requirement.</p>	Please follow Tender Condition
46	Appendix A Part II	166	item 1	<p>RMS Cable laying. Installation of Computer based RMS System in SCR room or other designated room</p>	<p>The scope of RMS cabling from escalator controller to RMS system to be kept in customer monitoring room, will be scope of designated BMS contractor. Installation of Computer based RMS System in SCR and other designated room to be done by designated BMS contractor. Please confirm.</p>	Please follow Tender Condition
47	Appendix A Part I	165	item 2 Construction	<p>Provide Isolating Switch (suitable capacity MCCB and ELCB) before the Escalator controller where the main power supply cable will be terminated.</p>	<p>Bidder confirms that, Suitable capacity MCCB and ELCB are already provided inside our Escalator Controller Enclosure.</p>	Please follow Tender Condition
48	PART I: SHE MANAGEMENT	4	3.4.2	<p>The process of certification shall start immediately after the award of the work and complete within reasonable time. Towards this, the Contractor shall undertake the required steps including appointment of ISO consultant for obtaining the certification on Occupational Health and Safety Management System and Environment Management System.</p>	<p>Bidder's Infrastructure Division is certified with ISO & OHSAS standards from BSI, Hence Bidder requests that bidder be exempt from this requirement of taking separate certificate from an agency. Please confirm if acceptable.</p>	Please follow Tender Condition
49	PART I: SHE MANAGEMENT	4	4.1	<p>The Contractor as per Section 39 of the BOCW Act shall formulate a SHE policy and get it approved by DG/CI/BC and display it at conspicuous places at work sites in Hindi and local languages understood by the majority of construction workers</p>	<p>Bidder has it's standard HSE policy in Hindi & English. Please confirm if acceptable.</p>	Please follow Tender Condition
50	PART I: SHE MANAGEMENT	7	5.7	<p>If any of the above-mentioned clauses (5.5.1) are not adhered penalty shall be imposed depending upon the gravity of the unsafe act and or condition</p>	<p>Bidder requests waiver of these Penalty Clauses as Bidder has vast experience in handling Infrastructure tenders across the country with utmost priority given to Safety.</p>	Please follow Tender Condition
51	PART I: SHE MANAGEMENT	7	6.1.1	<p>The Contractor shall appoint the required SHE personnel as prescribed in General Instruction Appendix -5 (enclosed at the end) based upon the statutory requirement and establish the safety organisation based upon the Contract value. The minimum educational qualification and the work experience are given in General Instruction Appendix-6. General Instruction MAHA-METRO/SHE/GI/001 1) Chief Safety manager- 01. 2) Sr.Safety Manager-01. 3) Jr.SHE Manager-01. 4) Safety Steward- 01 per shift. 5) Sr-SHE(Electrical Engineer)- 01. 6) Jr-SHE (Electrical Engineer)-01. 7) Jr-SHE (Fire Manager)-01. 8) Occupational Health Officer with nursing staff- 9) Environmental Manager-01 10) Sr-SHE (Traffic) Engineer-01. 11) Barricade Manager Squad-01 12) Housekeeping Squad-01. 13) Labour Welfare Officer-01.</p>	<p>Bidder recommends that such a vast Safety Organisation is not required to fulfil the project requirement. Hence, Bidder requests that this requirement be waived off. A Full time Safety Office will be stationed at site which is sufficient. Please confirm if this will be acceptable.</p>	Please follow Tender Condition



52	PART I: SHE MANAGEMENT	7	6.1.2	In order to effectively interact on labour welfare matters with the Employer and the statutory authorities enforcing the labour welfare legislations every Contractor shall employ a full time, Labour Welfare Officer duly qualified and experienced as per Clause 6.1.1.	Bidder has SMC (Subcontractor Management cell) Dept. to comply labour related statutory requirement which suffices the requirement. Please confirm if this is acceptable.	Please follow Tender Condition
53	PART I: SHE MANAGEMENT	11	8.2	All personnel shall be issued a photo identity card of size 85mm x55mm duly signed by the authorized representative of the Contractor before they are engaged for any work as per the format given in the General Instruction KMRC/SHE/GI/005/IDC/281105.	Bidder's personnel has it's own ID Card. Hence, bidder requests that this requirement be waived off.	Please follow Tender Condition
54	PART I: SHE MANAGEMENT	11	8.3	Contractor shall also issue a personnel SHE handbook in a language known to the workers, which provides information on SHE and emergency procedures that all personnel working on contract are required to know and the need to follow. Contractor shall ensure that this is distributed and its content introduced to all personnel working at the site.	Bidder has safety handbook in English which contents can be translated into Hindi language whenever required. Please confirm if this is acceptable.	Please follow Tender Condition
55	PART I: SHE MANAGEMENT	17	11.4.1	External SHE audits are to be conducted by external agencies that are competent with ISO qualified auditors with the prior approval of the Employer.	Bidder's auditor conducts training on quarterly basis. Hence bidder requests waiver on this tender requirement.	Please follow Tender Condition
56	PART I: SHE MANAGEMENT	24	16.1	Contractors may utilise the services of experts/agencies empanelled under relevant Rule of BOCWR and relevant Rule of RBOCWR for the purpose of training, internal audit and any other SHE services with prior approval of the Employer.	Bidder requests waiver on this requirement.	Please follow Tender Condition
57	PART I: SHE MANAGEMENT	24	16.2	As an aide to contractors, a list of experts/agencies and the offered service are given in General Instruction attached as Appendix 14 for ready reference. In addition to it if the contractor would like to use any expert/agencies' services for any SHE activities the same can also be allowed provided that they are competent and meet to the general requirements of Employer. In every case prior approval of the Employer is mandatory.	Bidder requests waiver on this requirement.	Please follow Tender Condition
58	PART II: SAFETY	63	42.2	The Contractor shall ensure at a construction site an occupational health centre, mobile or static is provided and maintained in good order. Services and facilities as per the scale lay down in Schedule X of BOCWR. A construction medical officer appointed in an occupational health centre, possess the qualification as laid down in Schedule XI of BOCWR.	Bidder will tie up with nearby hospital. Hence Bidder requests waiver on this requirement.	Please follow Tender Condition
59	PART II: SAFETY	63	42.3	The Contractor shall ensure at a construction site of a building or other construction work that an ambulance van and room are provided at such construction site or an arrangement is made with a nearby hospital for providing such ambulance van for transportation of serious cases of accident or sickness of workers to hospital promptly and such ambulance van and room are maintained in good repair and is equipped with standard facilities specified in Schedule IV and Schedule V of BOCWR.	Bidder will tie up with Ambulance agency. Hence Bidder requests waiver on this requirement.	Please follow Tender Condition
60	PART II: SAFETY	63	42.5.2	The Employer will engage a professional agency for implementing the guidelines laid down in the policy and communicate to the Contractor.	Bidder requests waiver on this requirement.	Please follow Tender Condition
61	PART II: SAFETY	63	42.5.5	As laid down in the policy the Contractor shall identify peer educators (1 for every 100 workers) and refer them for professional training to the Employers' appointed agency for the purpose.	Bidder requests waiver on this requirement.	Please follow Tender Condition
62	PART II: SAFETY	66	44.1.2	The oxygen level shall not be less than 19.5% in the working environment.	Bidder requests waiver since we do not work in confined space hence there is no need to Purchase Oxygen meter to monitor oxygen level at site.	Please follow Tender Condition
63	PART - V: PENALTY AND AWARDS	75	56.1	UPMRC intends to build an image of safety conscious organisation. Any reportable accident (fatality / injury) results in loss of life and/or property damage. These accidents not only result in loss of life but also damage the reputation of KMRC. Most of the accidents are avoidable and caused preliminarily due to Contractors' negligence. Hence KMRC shall recover the cost of damages from the Contractors for every reportable incident (fatality / injury).	Bidder requests waiver on this clause as the penalty mentioned is too high.	Please follow Tender Condition
64	PART - V: PENALTY AND AWARDS	75	56.2	In addition every UPMRC work site is exposed to public scrutiny as the work is executed just on the right-of-way. Any unsafe act / unsafe condition observed by public further damage KMRC's reputation. In view of this, KMRC has decided to establish safety-enforcing organisation. The cost of establishing such organisation is to be recovered from Contractors for all observed safety violations at sites.	Bidder requests waiver on this clause as the penalty mentioned is too high.	Please follow Tender Condition



65	PART - V: PENALTY AND AWARDS	75	56.3	The following table indicates the Safety, Health and Environment violation (unsafe act / unsafe condition) and charges to be recovered from contractors.	Bidder requests waiver on this clause as the penalty mentioned is too high.	Please follow Tender Condition
66	Vol-3 General Specifications	55 of 191	5.1.1	The Contractor shall maintain and implement a Quality Management System that shall remain in effect during the execution of the Works. The Contractor's Quality Management System shall be based on the International Standard ISO 9001/9002:2000 Model for quality assurance in design, development, production, installation and servicing. The Contractor shall submit its Quality Management System documentation for the Employer's Representative's review as specified in this Chapter.	The QMS system shall be based on the latest ISO 9001:2015 standard. Please confirm if acceptable.	Please refer Addendum-1
67	Vol-3 General Specifications	GS 5-2 of 7	5.3	Management: Quality Plan	Bidder will be providing Bidder's Quality Manual. Please confirm if acceptable.	Please follow Tender Condition
68	Vol-3 GS	GS 10-4 of 5	10-4.3	The Contractor shall provide such written or printed matter, functional equipment, samples, models, cutaway equipment, slides, films and other instructional materials as may be necessary for training. Such equipment and material shall remain the property of the Employer and shall be sufficient both for the persons trained by the Contractor and for those to be subsequently trained by the ETI.	Bidder will provide training manuals only. Please confirm if acceptable. For other aids to be given, separate budget needs to be allotted. Bidder requests exemption for other means as suggested in tender.	Please follow Tender Condition
69	Vol-3 GS	15-4 of 5	15 10.2	The Contractor shall provide adequate training to its security staff to ensure that they are able to discharge their security duties properly.	Bidder requests clarity on the Training objectives & contents.	Please follow Tender Condition
70	Vol-4 PS	149	19.1.2	The training shall be carried out at such locations where the greatest benefit for trainees may be gained. This may be in India, abroad, at place of manufacture, assembly or testing, or at such other locations as may be necessary. All places of training shall be subject to review by 'Engineer'.	Training will be provided within India only. Please confirm if acceptable.	Please follow Tender Condition
71	Vol-4 PS	150	19.2	The training shall be provided by the Contractor to the Employer's personnel in design, manufacturing, testing, system architecture and installation practices related to Escalators.	Bidder will provide installation, commissioning & maintenance trainings. Please confirm if acceptable.	Please follow Tender Condition
72	Vol-4 PS	134	19.2	The training shall be provided by the Contractor to the Employer's personnel in design, Operation and Maintenance, manufacturing, testing, system architecture and installation practices related to elevators. This will cover training in India and abroad including training at manufacturing facilities.	Bidder covers Installation, Commissioning & maintenance related training only, which includes training delivery, training manuals-theory & hands on Arrangement of training site, tool box, PPEs, Tg room, etc. to be done by the employer. For effective Tg delivery, Batch size should be optimum (4 to 6 persons). Trainers travel, lodging & boarding extra and should be taken care by the employer. Please confirm if acceptable.	Please follow Tender Condition
73	VOLUME - 1 /NITT	3	1.1.4.1 Eligible Applicants:	(i) A Tenderer may be from any country and all areas either a single entity or any combination of entities in the form of a joint venture or consortium under an existing agreement in the case of a JV/Consortium; all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms; and the JV/Consortium shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the partners of the JV/ Consortium during the tendering process and, in the event the JV/Consortium is awarded the Contract, during contract execution.	As we understand, Tenderer can form JV/Consortium with any country and GOI order dtd. 04.06.2020 is not applicable in this tender. Kindly confirm.	Please follow Tender Condition



74	VOLUME - 1 /ITT	10	VOLUME - 1 INSTRUCTION TO TENDERS A4 Qualification of the Tenderer	A4.1 To qualify for award of Contract, the Tenderer shall submit notarized written power of attorney authorizing the signatory (ies) of the Tender to commit the tenderer of each member of the partnership, consortium or joint venture. In case of Foreign Partners, Power of Attorney(s) and Board Resolution confirming authority on the persons issuing the Power of Attorney for such actions, shall be submitted duly notarized by the notary public of origin and stamped by Embassy/High Commission. Tenderers from member country of „Hague Convention“ may submit these documents with „Apostille“ stamp. In case, bidder is not able to submit the above documents at bidding stage then he shall submit an undertaking as per Annexure - 9 of ITT otherwise his bid may be summarily rejected. For reference DMRC tender undertaking formats attached.	Notarized and Apostille“ stamp required min. Eight weeks to complete from Indian Embassy. Hence request you to accept the undertaking similar to other Metro and add the below clause in the existing. To qualify for award of Contract, the Tenderer shall submit notarized written power of attorney authorizing the signatory (ies) of the Tender to commit the tenderer of each member of the partnership, consortium or joint venture. In case of Foreign Partners, Power of Attorney(s) and Board Resolution confirming authority on the persons issuing the Power of Attorney for such actions, shall be submitted duly notarized by the notary public of origin and stamped by Embassy/High Commission. Tenderers from member country of „Hague Convention“ may submit these documents with „Apostille“ stamp. In case, bidder is not able to submit the above documents at bidding stage then he shall submit an undertaking as per Annexure - 9 of ITT otherwise his bid may be summarily rejected. For reference DMRC tender undertaking formats attached.	Apostille documents can be send within 21 days from the date of Tender Submission.
75	VOLUME - 1 /ITT	HEADER	VOLUME - 1 INSTRUCTION TO TENDERS	ANNEXURES TO ITT- KNPAGE-04: “Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Machine Room, Less Escalators including Maintenance of 02 (two) Years during Defect Liability Period (DLP) and 01 (one) year comprehensive Annual Maintenance beyond DLP Period for Kanpur (Corridor-I & II) & Agra (Corridor-I) Mass Rapid Transport System Project Phase-I under the Contract KNPAGE-04”	In all Annexure to ITT, Name of tender is mentioned “Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Machine Room, Less Escalators. Request you to kindly correct the name in the tender and issued the amendment according.	Please read as: “Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Escalators including Maintenance of 02 (two) Years during Defect Liability Period (DLP) and 01 (one) year comprehensive Annual Maintenance beyond DLP Period for Kanpur (Corridor-I & II) & Agra (Corridor-I) Mass Rapid Transport System Project Phase-I under the Contract KNPAGE-04”
76	VOLUME - 1 /ITT	32	Annexures to ITT ANNEXURE - 7 (As per Clause C18.1)	FORM OF BANK GUARANTEE FOR TENDER SECURITY	Minor changes are always proposed by the Bank in reference to RBI instruction in Bank Guarantee formats. Kindly allow minor modification after due discussion.	Please follow Tender Condition
77	VOLUME - 1 /ITT	34	ANNEXURE - 8 (Refer clause C2.3 (e), F5 of ITT)	Details of Providers of Performance Security: The Tenderer shall provide the Bankers Reference who will provide the Performance Bank Guarantee, if the work is awarded to the Tenderer.	We understand that bidder has to provide a self attested declaration for details of the bank providing the Performance Security. Please confirm.	Your understanding is correct. Please follow Tender Condition
78	VOLUME - 1 /ITT	22	ITT - C16.2	Interim on-account stage payments shall be made as laid down in the Bill of Quantity/ Pricing Document. The payment at each stage shall be paid in EURO, GBP, INR, USD / YEN as per the proportion in the quoted price by the tenderer.	Please confirm that employer has not issue in making USD payment to the Indian Entity, if the foreign consortium member agrees to it in the consortium agreement.	Please follow Tender Condition
79	VOLUME - 1 /ITT	23	ITT - C18. Tender Security	ITT - C18. (C) In case of JV or consortium, the Bank Guarantee for Tender Security shall be in the name of JV or consortium only and not from individual members failing which the tender shall be summarily rejected. The Tender Guarantee so submitted shall be supported with a joint undertaking signed by each of the joint Venture / Consortium member, indicating that they have backed up the Tender Guarantee value in proportion to their share specified in the Consortium/ Joint Venture Agreement / Memorandum of Understanding, on pro-rata basis.	Please allow Lead member to submit the Tender security on behalf of Consortium without any undertaking from other consortium member of backing up the tender Guarantee value.	Please refer Addendum-1
80	VOLUME - 1 /ITT	32	Annexures to ITT ANNEXURE - 7 (As per Clause C18.1)	FORM OF BANK GUARANTEE FOR TENDER SECURITY	Minor changes are always proposed by the Bank in reference to RBI instruction in Bank Guarantee formats. Kindly allow minor modification after due discussion.	Please follow Tender Condition
81	Volume-2	2 of 4	Special Conditions of Contract - Schedules-2 (Refer Sub - Clause 4.2 of GGC)	PERFORMANCE SECURITY	Minor changes are always proposed by the Bank in reference to RBI instruction in Bank Guarantee formats. Kindly allow minor modification after due discussion.	Please follow Tender Condition



82	Volume-2	2 of 4	Special Conditions of Contract – Schedules-7	FORM OF BANK GUARANTEE FOR ADVANCE PAYMENTS (Refer Clause 26 of SCC)	Minor changes are always proposed by the Bank in reference to RBI instruction in Bank Guarantee formats. Kindly allow minor modification after due discussion .	Please follow Tender Condition
83	Volume-2	2 of 4	Special Conditions of Contract – Schedule-09	GUARANTEE FOR SAFE CUSTODY	Minor changes are always proposed by the Bank in reference to RBI instruction in Bank Guarantee formats. Kindly allow minor modification after due discussion .	Refer Clause 3.3 of preamble to BOQ (Volume-7). Please follow tender condition
84	Volume-1/ NIT	18	Annexure-6	PROFORMA FOR BANKING REFERENCE FOR LIQUIDITY BANK CERTIFICATE	Please clarify in case the Net Working Capital (as seen from the Balance Sheet) is Positive for consortium members , is it still mandatory to submit the Banking reference(s). Also, Indian Schedule bank is reluctant to issue the Banking reference in the prescribed format. Please accept Bank standard format.	In case of Net Working Capital is negative then only Banking reference(s) is required. Please follow tender condition.
85	Volume-1/ NIT	8	NIT 1.1.4.2 Minimum Eligibility Criteria:	Notes: In case audited balance sheet of the last financial year ending with 2019-20 is not made available by the tenderers, he has to submit an affidavit certifying that The Balance Sheet has actually not been audited so far.	Instead of affidavit , will external CA certification sufficient for this requirement. Please clarify.	Please follow Tender Condition
86	Volume-2	2 of 5	Special Conditions of Contract – Schedules-3 & 4	PARENT COMPANY UNDERTAKING & PARENT COMPANY GUARANTEE	Request you to allow minor change in the format, as per company's legal requirement.	The requirement of Parent Company Undertaking & Parent Company Guarantee is deleted.
87	Volume-2	42	GCC Volume -2, cl. 8.5	Liquidated Damages - 0.5% of the contract value per one week delay with an upper limit of generally 10% of the contract value.	Request to link the delay damages to unfinished portion of work only and hence amend the clause changing 10% of the contract value to 10% of the unfinished part of contract value.	Please follow Tender Condition
88	Volume-2	15	SCC - 23, Sub Clause 100	Defect liability period A penalty of Rs.10000/- per day in DIP period will be imposed if major equipment (as defined in the contract documents) or any complete system is not working for more than 24 Hrs.	Bidder request to drop the penalty from 10000 to 5000 or increase the hours from 24 to 48 considering the length & different corridors	Please follow Tender Condition
89	Volume-2	18	SCC- 29, Sub-Clause 11.2.5	Interest in case of delay in repayment of advances	Bidder request to consider the advance as interest free advance as mention in the GCC.	Please follow Tender Condition
90	Volume-2	17	SCC - 25, Sub Clause 11.1.3	Price Variation Prices quoted by the tenderer shall be fixed throughout the Tenderers performance of the contract and not subject to variation of any account except where specifically mentioned in the contract conditions along with the price variations formula to be made applicable.	Bidder understood that Prices are fixed till the complete period mention in NIT only & Price variation is applicable for the extended period , if project get delayed beyond tender completion period. Hope our understanding is correct. Please clarify.	Please follow Tender Condition
91	Volume-2	16	SCC- 24, Sub-Clause 11.1.1	Contract Price The contract price, subject to any adjustment thereto in accordance with the contract shall be inclusive of all taxes (except Goods and Services Tax – GST), duties, levies, cess, royalties, etc. and all other incidental charges required to fulfil the tender conditions.	Please clarify about custom duty. Is custom duty to be included in the Contract price or it will also be excluded. Also, is there any concessional custom duty benefit to the employer or not.	Please refer Addendum-1
92	Volume-2	22	SCC - 40, Additional Clause	Retention Money Retention money equal to 10 percent of the amount due to the Contractor from each on account payment will be retained, so as to maintain a reserve in the hands of the Employer equal to 5 percent of the Contract Price	Please allow Bidder to submit Bank Guarantee of 5% of the contract value to avoid any retention deduction	Please follow Tender Condition
93	Volume-1/ FOT	7	FORM OF TENDER: APPENDIX 1	vii Amount of Professional Indemnity Insurance (PII). (for the contracts having Design in scope of work) AOA (any one accident) limit equal to 6% of the contract value against BOQ in respect of „design and construct“ with ADY (any one year) limit of 2 incidents in a year. In the Professional Indemnity insurance Policy the deductible amount shall not be more than 5% of AOA limit. PII Policy shall be obtained within four weeks from „date of commencement“ and shall be valid for five years after date of issue of 'Performance Certificate'.	Bidder request to limit the Professional Indemnity insurance validity till Performance Certificate instead of five years after date of issue of Performance Certificate. It add additional cost Burden on the project estimate & no insurance agency gives such long period insurance.	Please Follow Tender Condition. If the bidder maintain corporate professional indemnity insurance then the bidder can include this project also in it.
94	Volume-2	60	GCC Volume -2, cl.14.1	b) loss of, or damage to, or destruction of any property (other than the Works) including consequential loss of use, and	Please delete the "including consequential loss" and amend the clause accordingly.	Please follow Tender Condition



95	Volume-2	62	GCC Volume -2, Cl. 1.4.6	<p>Except as provided otherwise in these Conditions, neither party shall be liable to the other party for loss of any Works, loss of profit, loss of any Contract or any other indirect or consequential loss or damage which may be suffered by the other party in connection with the Contract. The total liability of the Contractor to the Employer under the Contract shall not exceed the Contract Price. Except that this Sub-Clause shall not limit the liability of the Contractor:</p> <p>a) under Sub-Clauses 4.18, 4.19 and 14.1</p> <p>b) under any other provisions of the Contract which expressly impose a greater liability,</p> <p>c) in cases of fraud, wilful misconduct or illegal or unlawful acts, or</p> <p>d) in cases of acts or omissions of the Contractor which are contrary to the most elementary rules of diligence which.</p> <p>Table-1 Rise-wise escalator details</p>	<p>It's a very open ended clause for Bidder, hence please set a cap on the exclusion items for better clarity and also request delete "Indirect & consequential Loss and damage".</p>	Please follow Tender Condition
96	Volume-4	24	Employer's Requirements: Particular Specification 4.15	Escalator Schedules (2) The Balustrade of escalator shall be either of Inclined Box Type Stainless Steel or of Glass with Newel Wheels for both type of Balustrades.	Request you to provide the Station wise escalator details which is required for RMS system grouping.	4 nos. of Escalators at each underground Station and 3 nos. of Escalators at each Elevated Station has been considered
97	Volume-4	25	Employer's Requirements: Particular Specification 4.15	The distance between the inner decking immediately below the handrail shall not be less than 1150 mm (with tolerance of +0.4mm to -2mm).	Clause 5.4.5. is allow to use rollers wheel, hence please amend the clause as below, (2) The Balustrade of escalator shall be either of Inclined Box Type Stainless Steel or of Glass with Newel Wheels/rollers wheel for both type of Balustrades.	Please refer Addendum-1
98	Volume-4	35	Employer's Requirements: Particular Specification 5.3.9	The Contractor shall be fully responsible for obtaining relevant safety certificate or any other document required from statutory authorities for commissioning the regular operation of Escalators.	Due to Step Chain Roller Inside , Truss width decrease by approx 100mm, hence requested to amend clause as per below. The distance between the inner decking immediately below the handrail shall not be less than 1100 mm (with tolerance of +0.4mm to -2mm).	Please refer Addendum-1
99	Volume-4	16	Employer's Requirements: Particular Specification 3.5.1	The design of the fixing of the step to the step axle including detail of bushing, pin or any other means, shall be of proven design and have been in used for an extended period in existing mass transit system(s) at a speed of 0.65m/s. The fixture shall permit quick and easy removal of step without dismantling any part of the step chain and the balustrade.	Tenderer will be responsible for procuring license permits/licenses from Lift Inspector/ PWD Office, including payment of all necessary official fees for such licenses/ permits. You will provide all requisite assistance to enable tenderer to obtain the permit / licenses and shall execute / provide such documents as may be reasonable requested by Otis in this regard. However, Tenderer will not be liable for any delays in the administrative process of procuring such licenses/ permits.	Please follow Tender Condition
100	Volume-4	37	Employer's Requirements: Particular Specification 5.5.6	The design of the fixing of the step to the step axle including detail of bushing, pin or any other means, shall be of proven design and have been in used for an extended period in existing mass transit system(s) at a speed of 0.5m/s. The fixture shall permit quick and easy removal of step without dismantling any part of the step chain and the balustrade.	As per clause 5.6.4, required escalator speed of 0.5m/s but in clause 5.5.6 mentioned 0.65m/s, so please amend clause as per below. The design of the fixing of the step to the step axle including detail of bushing, pin or any other means, shall be of proven design and have been in used for an extended period in existing mass transit system(s) at a speed of 0.5m/s. The fixture shall permit quick and easy removal of step without dismantling any part of the step chain and the balustrade.	Please refer Addendum-1



101	Volume-4	49	Employer's Requirements: Particular Specification 5.1.3.12	<p>The escalator controller shall be housed in a 1.5mm thick, IP 54 (Ingress protection of panels shall be achieved through good quality polyurethane gasket suitable for continuous use from 30°C to 80°C) spray painted or galvanized sheet (with minimum 85 µm thick Galvanising), metal cabinet with hinged door, lockable with a dedicated key. Escalator controller shall be housed in an IP54 spray painted, 1.5mm thick sheet (with minimum 85µm thick metal cabinet with hinged door (IP55), lockable with a dedicated key. The operating buttons / switches etc. shall be provided in lockable enclosure to restrict access to authorized person only. The size of the controller cabinet shall be suitable for mounting into a wall closet of maximum dimensions 2000 mm (width) x 2000mm (height) x 500 mm (depth) with doors and shall be suitable to house the incoming power supply isolators and ITBs.</p>	<p>As per clause 5.12... bidder is allow to supply Escalator controller either Inside or Outside whereas at clause 5.13.12 details of the controller size is for outside controller which contradicting. Hence request you to amend the clause as below, The escalator controller Inside/Outside truss shall be housed in a 1.5mm thick, IP 54 (Ingress protection of panels shall be achieved through good quality polyurethane gasket suitable for continuous use from 30°C to 80°C) spray painted or galvanized sheet (with minimum 85 µm thick Galvanising), metal cabinet with hinged door, lockable with a dedicated key. If Controller is located at outside truss then, escalator controller shall be housed in an IP54 spray painted, 1.5mm thick sheet (with minimum 85µm thick metal cabinet with hinged door (IP55), lockable with a dedicated key. The operating buttons / switches etc. shall be provided in lockable enclosure to restrict access to authorized person only. The size of the controller cabinet shall be suitable for mounting into a wall closet of maximum dimensions 2000 mm (width) x 2000mm (height) x 500 mm (depth) with doors and shall be suitable to house the incoming power supply isolators and ITBs.</p>	Your understanding is correct. Please follow Tender Condition
102	Volume-4	49	Employer's Requirements: Particular Specification 5.1.4.2	<p>5.1.4.2 The conductor shall be of stranded conductor composed of plain annealed copper wire complying with IEC 228, Class 2.</p>	<p>In Escalator cable there is lot of bend due to location of switch and not possible to use Class 2 cable it's a class 5, so requested to amend clause as below. The conductor shall be of stranded conductor composed of plain annealed copper wire complying with IEC 228, Class 5.</p>	Please refer Addendum-1
103	Volume-4	52	Employer's Requirements: Particular Specification 5.23	<p>Variable speed control/drive shall be provided. The control shall be integrated with the escalator control. It shall be able to operate the escalator at nominal speed of 0.65 m/s and reduced service (rated) speed of 0.50 m/s, with all other requirements and performance remain unchanged. An easily accessible manual change-over switch, with clear label to the "Engineer" acceptance, for selecting the normal and reduced speed, shall be provided in the controller.</p>	<p>As per clause 5.6.4, required escalator speed of 0.5m/s but in clause 5.23 mentioned 0.65m/s, so please amend clause as below, Variable speed control/drive shall be provided. The control shall be integrated with the escalator control. It shall be able to operate the escalator at nominal speed of 0.5 m/s and reduced service (rated) speed with all other requirements and performance remain unchanged. An easily accessible manual change-over switch, with clear label to the "Engineer" acceptance, for selecting the normal and reduced speed, shall be provided in the controller.</p>	Please refer Addendum-1
104	Volume-4	175	Appendix "E" Spare Policy for Electrical Contracts 1.1.3	<p>(iii) The Contractor shall generally not be entitled to use any of the Employer's spare parts during the installation, erection and commissioning periods or during the Defects Liability Period.</p>	<p>The Contractor shall generally not be entitled to use any of the Employer's spare parts during the installation, erection and commissioning periods form DLP spare.</p>	Please follow Tender Condition
105	Volume-4	178	Annexure-1	<p>The indicative list of recommended & consumable spares in Kanpur & Agra MRTS Project is given in following table.</p>	<p>As per our understanding, Bidder is allow to change the spare and Qty, as per their design. Please confirm.</p>	Please follow Tender Condition
106	Volume-4	179	Annexure-2	<p>The indicative list of Unit Exchange Spares in Kanpur & Agra MRTS Project is given in following table.</p>	<p>As per our understanding, Bidder is allow to change the spare and Qty, as per their design. Please confirm.</p>	Please follow Tender Condition
107	Volume-4	180	Annexure-3	<p>The indicative list of DUP Spares in Kanpur & Agra MRTS project is mentioned in following table.</p>	<p>As per our understanding, Bidder is allow to change the spare and Qty, as per their design. Please confirm.</p>	Please follow Tender Condition
108	Volume-2	2 of 5	Special Conditions of Contract - Schedules-3 & 4	<p>PARENT COMPANY UNDERTAKING & PARENT COMPANY GUARANTEE</p>	<p>If single Indian entry is bidding for the project, do he still need to submit PCG & PCU for the project. Please clarify.</p>	The requirement of Parent Company Undertaking & Parent Company Guarantee is deleted.
109	Volume-2	42	GCC Volume-2, Cl. 8.5	<p>Liquidated Damages - 0.5% of the contract value per one week delay with an upper limit of generally 10% of the contract value.</p>	<p>Request to link the delay damages to unfinished portion of work and amend the clause accordingly.</p>	Please follow Tender Condition
110	Volume-2	15	SCC - 23, Sub Clause 10.0	<p>Defect liability period A penalty of Rs.1,00,000/- per day in DLP period will be imposed if major equipment (as defined in the contract documents) or any complete system is not working for more than 24 Hrs.</p>	<p>Bidder request to drop the penalty from 10000 to 5000 or increase the hours from 24 to 48 considering the length & different corridors</p>	Please follow Tender Condition



111	Volume-2	18	SCC-29, Sub-Clause 11.2.5	Interest in case of delay in repayment of advances		Bidder request to consider the advance as interest free advance as mention in the GCC.	Please follow Tender Condition
112	Volume-2	65	GCC Volume-2, cl. 16.1	Force Majeure		Request to include epidemic and pandemic words in the definition of Force Majeure and amend the clause accordingly.	Please follow Tender Condition
113			1.1.4.1(i)	Joint Ventures and consortiums are allowed to participate in the tender only if tenderer is an Indian bidder having licensed/technology collaboration agreement with a foreign manufacturer for phased indigenization as per clause 1.1.4.1 (xiii) of NIT.		Indigenization is a long-drawn process, further localization can be explored to meet tender conditions for local content. We shall implement the indigenization after the award of work.	Your query is not applicable for Escalators Tender. Please follow Escalator Tender condition
114		3		Requirement of registration: As per Govt MoF DoE order for public procurement (No.1) dated 23.07.2020 amendment has been made in rule 144 of GRF making requirement of registration of bidders with competent authority for public procurement. The bidders to submit certificate regarding compliance as per clause 12 of Govt MoF/DoE order (public procurement: 1) dated 23.07.2020 as per Annexure-4(A) & Annexure 4(B) of NIT.		Currently have not been registered with the competent authority but we are process of the same. Please allow us to bid the tender, once we get registered we shall submit the documents.	Your query is not applicable for Escalators Tender. Please follow Escalator Tender condition
115	Volume-1/NIT	5	1.1.4.2	The tenderers will be qualified only if they satisfy the Work Experience criteria for Similar Work** as given below during last seven years ending 30.06.2020.		The tenderers will be qualified only if they satisfy the Work Experience criteria for Similar Work** as given below during last 12 (twelve) years ending 30.06.2020.	Please refer Addendum-1
116	Volume-4	34	5.3.4	Radii of the upper and lower transitional tracks shall meet EN115 requirement to be equal to or greater than the following - (a) Upper - 1.3 meter (b) Lower - 1.0 meter		We shall provide Radii of the upper and lower transitional tracks: (a) Upper - 1500mm (b) Lower - 1050mm	It will be dealt during design stage. Please follow Tender Condition
117			General Queries	Seismic Sensors		Please confirm for the provision of seismic sensors to be considered in elevators or not.	Please follow Tender Condition
118			General Queries	Storage & Watch and Ward of materials		The storage shall be provided by UPMROCL free of cost near to site. Please clarify the support which shall be provide to OEM for transport of material from storage to each station for ITC. Also ward and ward scope	Please follow Tender Condition
119			General Queries	Electrical supply for ITC, Single and three phase		Single phase and three Power supply for ITC shall be in client scope free of cost.	Please follow Tender Condition
120			General Queries	Station Drawings		The architectural drawing of station are required for calculation purpose	It will be dealt during design stage. Please follow tender condition.
121	Volume-2	15	v "Defects Liability Period" for the whole of the Works	"Defects Liability Period" for the whole of the Works As per clause 23 of SCC after the date of issue of Taking-Over Certificate for whole of the works.		"Defects Liability Period" for the whole of the Works As per clause 23 of SCC after the date of issue of Taking-Over Certificate on pro-rata basis for whole of the works	Please follow Tender Condition
122	Volume-2	63	Nil: Insurance cover for Contractor's All Risk and other requirements as specified in the GCC	Insurance cover for Contractor's All Risk and other requirements as specified in the GCC		Insurance cover for Erection All Risk and other requirements as specified in the GCC 100% of the Total Contract Price.	Please follow Tender Condition
123	Volume-2/ GCC	16	4.2.1 Performance security Amount	Performance security Amount (i) Within 30 days of receipt of the Letter of Acceptance, the successful Tenderer shall furnish Performance Security in the form of a bank guarantee from a scheduled Indian/Foreign bank in India acceptable to the Employer for an amount of ten per cent of the Contract value in types and proportions of currencies in which the Contract Price is payable. The approved form provided in the "Instructions to Tenderers" documents or any other form approved by the Employer shall be used for Bank Guarantee. The Bank Guarantee shall be valid up to 3 months beyond the Defects Liability Period. In case the contract value exceeds beyond 25% of the original contract value, the contractor shall have to submit additional performance security. (ii) Whenever the contract value exceeds beyond 25% of the original contract value either due to contractor's variation or due to contractor's variation, the contractor shall submit additional performance security equal to an amount equal to 5% of the work already certified as completed by the Engineer-in-Charge on the date of variation subject to a maximum limit of 10% of the variation amount. If there is a negative variation in contract of more than 25% at any stage, the contractor has the choice to reduce the Performance Security according to the revised contract value. (iii) No additional performance security will be required to be submitted if the variation is within 25% of the original contract value. Additional validity period of 3 months shall not be acceptable.		Performance security Amount (i) Within 30 days of receipt of the Letter of Acceptance, the successful Tenderer shall furnish Performance Security in the form of a bank guarantee from a scheduled Indian/Foreign bank in India acceptable to the Employer for an amount of ten per cent of the Contract value in types and proportions of currencies in which the Contract Price is payable. The approved form provided in the "Instructions to Tenderers" documents or any other form approved by the Employer shall be used for Bank Guarantee. The Bank Guarantee shall be valid up to the Defects Liability Period. In case the contract value exceeds beyond 25% of the original contract value, the contractor shall have to submit additional performance security. (ii) Whenever the contract value exceeds beyond 25% of the original contract value either due to employer's variation or due to contractor's variation, the contractor shall submit additional performance security equal to an amount of 10% of the variation subject to a maximum limit of 25% of the original contract value. If there is a negative variation in contract of more than 25% at any stage, the contractor has the choice to reduce the Performance Security according to the revised contract value. (iii) No additional performance security will be required to be submitted if the variation is within 25% of the original contract value.	Please follow Tender Condition



124	Volume-2/ GCC	16	4.2.4 Guarantees and Warranties	<p>Guarantees and Warranties Within 30 days of the date of Letter of Acceptance of the Tender, the Contractor shall submit to the Employer:</p> <p>Guarantees and Warranties Within 30 days of the date of Letter of Acceptance of the Tender, the Contractor shall submit to the Employer:</p> <p>(a) An Undertaking in the approved format from a parent company, the identity of which shall have been submitted in writing to the Employer prior to acceptance of the Tender and against which the Employer shall have raised no objection.</p> <p>(b) A written Guarantee in the approved format from a parent company, the identity of which shall have been submitted in writing to the Employer prior to acceptance of the Tender and against which the Employer shall have raised no objection.</p> <p>(c) A warranty in the approved format from the Contractor.</p> <p>In the event that the Contractor shall comprise two or more members, corporations acting in partnership, joint venture, consortium or otherwise each such member or corporation shall submit a parent company Undertaking and Guarantee.</p> <p>(g) Submission by the Contractor of the requisite Performance security, parent company Under takings and written Guarantees shall be condition precedent to the Contractor's entitlement to any payment, under the Contract; and</p> <p>(b) Failure by the Contractor to provide a Performance security or parent company Under takings or parent company Guarantees shall entitle the Employer either to suspend the Works or to terminate the Contract forthwith by notice in writing to that effect, notwithstanding that the Contractor may have been permitted to proceed with the Works, and the Contractor shall not be entitled to any compensation whatsoever as a consequence of such suspension or termination.</p>	<p>Guarantees and Warranties Within 30 days of the date of Letter of Acceptance of the Tender, the Contractor shall submit to the Employer:</p> <p>Guarantees and Warranties Within 30 days of the date of Letter of Acceptance of the Tender, the Contractor shall submit to the Employer:</p> <p>(a) No parent company undertaking, parent company guarantee shall be provided.</p> <p>(b) No parent company undertaking, parent company guarantee shall be provided.</p> <p>(c) A warranty in the approved format from the Contractor.</p> <p>Notwithstanding any other provision of the Contract:</p> <p>(a) No parent company undertaking, parent company guarantee shall be provided.</p> <p>(b) Failure by the Contractor to provide a Performance security shall entitle the Employer either to suspend the Works or to terminate the Contract forthwith by notice in writing to that effect, notwithstanding that the Contractor may have been permitted to proceed with the Works, and the Contractor shall not be entitled to any compensation whatsoever as a consequence of such suspension or termination.</p>	<p>The requirement of Parent Company Undertaking & Parent Company Guarantee is deleted.</p>
125	Volume-2/ GCC	42	8.5 Liquidated Damages for Delay	<p>Liquidated Damages for Delay Time is the essence of the contract and therefore if the work is delayed on account of the contractor, liquidated damage shall be recovered as provided for in the contract. Such liquidated damage shall generally be 0.5% of the contract value per one week delay with an upper limit of 10% of the contract value.</p>	<p>Liquidated Damages for Delay Time is the essence of the contract and therefore if the work is delayed on account of the contractor, liquidated damage shall be recovered as provided for in the contract. Such liquidated damage shall generally be 0.5% of the contract value per one week delay with an upper limit of 5% of the contract value of delayed units/complete works.</p>	<p>Please follow Tender Condition</p>
126	Volume-2/ GCC	44	10.1 Defects Liability	<p>Defects Liability "Defects Liability Period" shall mean the defects liability period stated in the Special Conditions of Contract calculated from the date of taking over of the Works or sub-systems or component of that part has been replaced, renewed or repaired except minor repair, that part or sub-system or components of that part shall start from the date such replacement, renewal or repair has been completed to the satisfaction of the Engineer.</p>	<p>Defects Liability "Defects Liability Period" shall mean the defects liability period stated in the Special Conditions of Contract calculated from the date of taking over of the Works on pro-rata basis unit by unit. Provided that, if any part of the Works or sub-systems or component of that part has been replaced, renewed or repaired except minor repair, the "Defects Liability Period" in respect of that part or sub-system or components of that part shall start from the date such replacement, renewal or repair has been completed to the satisfaction of the Engineer.</p>	<p>Please follow Tender Condition</p>
127	Volume-2/ GCC	46	11.1.1 Contract Price and Payment	<p>Contract Price and Payment i) Unless otherwise stated in the Special Conditions of Contract the Contract Price, subject any to any adjustment thereto in accordance with the Contract shall be all inclusive (including all taxes, duties, royalties etc.) except Value Added Tax (VAT) paid under JPK VAT Act 2005 where work is done in Uttar Pradesh and also Value added tax(VAT) paid under other State Govt VAT act if work is done in that state.</p>	<p>Contract Price and Payment i) Unless otherwise stated in the Special Conditions of Contract the Contract Price, subject any to any adjustment thereto in accordance with the Contract shall be all inclusive (including all taxes, duties, royalties etc.) except Goods and Service Tax inclusive (including all taxes, duties, royalties etc.) except.</p>	<p>Please refer SCC clause 24 which has already replaced GCC clause 11.1.1(i)</p>
128	Volume-2/ SCC	5	7 Sub- Clause 4.2.4 Guarantees, Warranties & Undertakings	<p>Guarantees, Warranties & Undertakings The forms of Performance Guarantee, Parent Company Undertaking, Parent Company Guarantee, Contractor's Warranty, Sub-Contractor's Warranty, Advance Payment Guarantee, Indemnity Bond and Safe Custody Guarantee shall be in the formats given in the Schedules 2, 3, 4, 5, 6, 7, 8 and 9 respectively to these Special Conditions of Contract. All these Guarantees and Undertakings should be submitted before signing of the contract agreement except Sub Contractor's Warranty, Advance Payment Bank Guarantee, Indemnity Bond and Safe Custody Bank Guarantee which will be required as per contract conditions. Even if not described or stated in the Employer's Requirements and the Contractor's Technical Proposals, the Contractor shall carry out and complete the design of the Works, including the selection of specifications for the kind and standard of Plant, Materials and workmanship to be used therein.</p>	<p>Guarantees, Warranties & Undertakings The forms of Performance Guarantee, Contractor's Warranty, Sub-Contractor's Warranty, Advance Payment Guarantee, Indemnity Bond shall be in the formats given in the Schedules 2, 3, 4, 5, 6, 7, 8 and 9 respectively to these Special Conditions of Contract. All these Guarantees and Undertakings should be submitted before signing of the contract agreement except Sub Contractor's Warranty, Advance Payment Bank Guarantee, Indemnity Bond which will be required as per contract conditions. Even if not described or stated in the Employer's Requirements and the Contractor's Technical Proposals, the Contractor shall carry out and complete the design of the Works, including the selection of specifications for the kind and standard of Plant, Materials and workmanship to be used therein.</p>	<p>The requirement of Parent Company Undertaking & Parent Company Guarantee is deleted.</p>
129	Volume-2/ SCC	15	23. Sub Clause 10.0 Defect liability period	<p>Defect liability period Defect liability period shall be 24 months from the date of issue of taking over certificate. During the Defects liability period the Contractor shall provide, free of cost, competent and skilled personnel and maintain adequate stock of spares so as to promptly fulfil his obligations during the Defects Liability Period as laid down in GCC and Employer's Requirements. A penalty of Rs.10,000/- per day in DLP period will be imposed if major equipment (as defined in the contract documents) or any complete system is not working for more than 24 Hrs.</p>	<p>Defects Liability "Defects Liability Period" shall mean the defects liability period stated in the Special Conditions of Contract calculated from the date of taking over of the Works on pro-rata basis unit by unit. Provided that, if any part of the Works or sub-systems or component of that part has been replaced, renewed or repaired except minor repair, the "Defects Liability Period" in respect of that part or sub-system or components of that part shall start from the date such replacement, renewal or repair has been completed to the satisfaction of the Engineer.</p>	<p>Please follow Tender Condition</p>



130	Volume-2/ SCC	17	Price Variation Following is added to GCC sub Clause 11.1.3 Prices quoted by the tenderer shall be fixed throughout the contractual period subject to variation of any account except where specifically mentioned in the contract conditions along with the price variations formula to be made applicable. The prices quoted under this bid shall remain firm for the contractual period/up to the project duration. Any further delay affecting the Delivery and or installation period shall account for price revision and such revised prices shall be quoted separately/paid with mutual consent.	Price Variation Following is added to GCC sub Clause 11.1.3 Prices quoted by the tenderer shall be fixed throughout the contractual period subject to variation of any account except where specifically mentioned in the contract conditions along with the price variations formula to be made applicable. The prices quoted under this bid shall remain firm for the contractual period/up to the project duration. Any further delay affecting the Delivery and or installation period shall account for price revision and such revised prices shall be quoted separately/paid with mutual consent.	please follow Tender Condition
131	Volume-2/ SCC	17	Mobilisation Advance Mobilisation advance shall be equal to 10% of the contract value. The advance shall be paid in two instalments of 5% each. In Design & Build Contracts, the second instalment will be paid after approval of Definitive design and acceptance of prototype test. In case of BOQ contracts, the second instalment will be paid after satisfactory utilization of earlier instalment for the contract after achieving the key date of detail engineering & submission of technical proposal of major equipments. Incidentally this also forms a key date payment. Technical proposal of equipments is submitted after the contractor has generally firm up the equipment & vendor. Mobilisation Advance shall be paid against acceptable Bank Guarantee of equivalent value of the advance taken by the contractor, from a scheduled commercial bank in India. In case of advance, the contractor, once the 50% of advance has been recovered, shall have a onetime option to reduce the Bank Guarantee for the mobilisation advance by the amount recovered.	Mobilisation Advance Mobilisation advance shall be equal to 10% of the contract value. The advance shall be paid in two instalments of 5% each. In Design & Build Contracts, the second instalment will be paid after approval of Definitive design and acceptance of prototype test. In case of BOQ contracts, the second instalment will be paid after satisfactory utilization of earlier instalment for the contract after achieving the key date of detail engineering & submission of technical proposal of major equipments. Incidentally this also forms a key date payment. Technical proposal of equipments is submitted after the contractor has generally firm up the equipment & vendor. Mobilisation Advance shall be paid against acceptable Bank Guarantee of equivalent value of the advance taken by the contractor, from a scheduled commercial bank in India. In case of advance, the contractor, once the 50% of advance has been recovered, shall have a onetime option to reduce the Bank Guarantee for the mobilisation advance by the amount recovered.	please follow Tender Condition
132	Volume-2/ SCC	22	Retention Money Retention money equal to 10 percent of the amount due to the Contractor from each on account payment will be retained, so as to maintain a reserve in the hands of the Employer equal to 5 percent of the Contract Price. The Retention money shall be held by the Employer without obligation to invest them or account for interest thereon or to place them in a designated account. No interest of whatsoever nature and type will be payable by the Employer in respect of Retention money. Retention money shall become due to the Contractor on the date of issue of the Taking Over Certificate of works in respective sections/corridors.	Retention Money Retention money equal to 10 percent of the amount due to the Contractor from each on account payment will be retained, so as to maintain a reserve in the hands of the Employer equal to 5 percent of the Contract Price. The Retention money shall be held by the Employer without obligation to invest them or account for interest thereon or to place them in a designated account. No interest of whatsoever nature and type will be payable by the Employer in respect of Retention money. Retention money shall become due to the Contractor on the date of issue of the Taking Over Certificate of works in respective sections/corridors.	please follow Tender Condition
133	Volume-2/ SCC	25	Stage Payment a) Application for payments in respect of part deliveries of completed items may be made by the contractor at the work proceeds. b) Notwithstanding anything stated herein the employer's representative retains the right to withhold payment on any item due for payment when the services is to be performed is not performed, or is not carried to satisfaction of the employer's satisfaction. c) Stage Payment shall be made as per tender clause as mentioned. For the item where rate of supply given separately, the payment shall be in two stages i.e. 85% after delivery of materials at site and 15% after successful testing & commissioning & handing over.	Recommended Payment Terms: Imported Equipment's: For Supply (Import): 100% Material value through Letter of Credit (LC) payable at sight, LC shall be opened on approval of GAD/manufacturing start notice. For Installation of Import units: 1) 10% Advance along with Order. 2) 40% against receipt of material at site on pro-rata basis. 3) 40% against completion of installation at site on pro-rata basis. 4) 10% against testing and commissioning on pro-rata basis. Any variation in Custom duties, indirect taxes and forex exchange/currency fluctuation shall be in client scope. For Supply, installation, testing and commissioning of Indian equipment's: 1) 20% contract amount shall be paid/payable as an interest-free and non-recoverable advance along with order and against submission of equivalent value advance bank guarantee (ABG). ABG shall valid up to the material delivery/depot on pro-rata basis. 2) 10% of contract amount shall be paid against approval general arrangement drawing (GAD) on pro-rata basis. 3) 30% of contract amount shall be paid against production start notice on pro-rata basis. 4) 30% of contract amount shall be paid against material delivery at site on pro-rata basis. 3) 05% of contract amount shall be paid against installation at site on pro-rata basis. 4) 05% of contract amount shall be paid against testing and commissioning on pro-rata basis.	please follow Tender Condition



134		28	<p>Safe Custody Bank Guarantee</p> <p>(Applicable for items specifically mentioned in the contract). The Contractor shall submit a Safe Custody Bank Guarantee in the format given in Schedule 9 against payments made for Plant and Equipment delivered to Kanpur & Agra. The amount of safe custody Bank Guarantee shall be equal to 95% percent of the amount due as per the relevant clause of (BOQ) wherever applicable. The value of the Safe Custody Bank Guarantee would be adjusted for the equipments already commissioned.</p>	<p>Safe Custody Bank Guarantee</p> <p>58. Additional Clause Safe Custody Bank Guarantee</p>	<p>Refer Clause 3.3 of BOQ. Please follow tender Condition</p>
135	Volume-7	12	<p>3. TERMS OF PAYMENT</p> <p>3.1. In accordance with the provisions of SCC Clause 24 the Employer will pay the Contractor in the following manner and at the following times on the basis of the Prices given in the Statement of Prices. Retention money will be deducted from the payments due in accordance with the Conditions of Contract.</p> <p>3.2 Payments will be made to the Contractor in the currency or currencies indicated for each respective Statement item. Notwithstanding anything stated herein the "Engineer" retains the right to withhold payment on any raw item due for payment when the service to be performed is not performed, or is not carried out to the "Engineer's" satisfaction.</p> <p>3.3 Statement of Prices No. 1A, 1B – Design, Manufacture and Delivery of Escalators CIF Port in India</p> <p>The amount entered shall be the total price to be paid for the design, manufacture and/or procurement of all escalators together with all ancillary equipment and components to be supplied from outside India for each Section and shall be quoted on a CIF port of entry.</p> <p>Shall be full compensation for all direct and incidental costs relating to the Works in Statement No. 1A, 1B. Payment shall be made on the basis of:</p> <p>100% of Statement of Price 1A of the Milestone price for each escalator shall be payable when a "Notice of No Objection" or "Notice of No Objection subject to" has been issued by the "Engineer" in respect of the design and other documents (RAM report etc.) for each escalator. Compensation shall include for the preparation, submission, and all subsequent revisions, changes required and re-submittals as necessary during the design phase as required by the "Engineer" for documents, drawings, design calculations, test procedures.</p> <p>95% of Statement of Price 1B of the CIF price for each escalator shall be payable after delivery to the "Engineer" of evidence of despatch documents in favour of the Employer and delivery of:</p> <p>Bill of Lading; certificate of type tests;</p> <p>certification of Factory Acceptance tests;</p> <p>provision of Safe Custody Guarantee or Indemnity Bond as per clause 45 of SCC; proof of Marine Insurance;</p> <p>for each shipment or consignment.</p>	<p>Clause to be deleted.</p> <p>Recommended Payment Terms:</p> <p>Imported Equipment's: For Supply (Import): 100% Material value (CIF value) through Letter of Credit (LC) payable at sight. LC shall be opened on approval of GAD/manufacturing start notice.</p> <p>For installation of import units: 1) 10% Advance along with Order. 2) 40% against receipt of material at site on pro-rata basis. 3) 10% against completion of installation at site on pro-rata basis. 4) 10% against testing and commissioning on pro-rata basis.</p> <p>Any variation in Custom duties, indirect taxes and forex exchange/currency fluctuation shall be in client scope.</p> <p>For Supply, installation, testing and commissioning of Indian equipment's: 1) 20% contract amount shall be paid/payable as an interest-free and non-recoverable Advance along with order and against submission of equivalent value advance bank Guarantee (ABG). ABG shall valid up to the material delivery/dispatch on pro-rata basis. 2) 10% of contract amount shall be paid against approval (general arrangement drawing (GAD) on pro-rata basis. 3) 30% of contract amount shall be paid against production start notice on pro-rata basis. 4) 30% of contract amount shall be paid against material delivery at site on pro-rata basis. 5) 05% of contract amount shall be paid against installation at site on pro-rata basis. 6) 05% of contract amount shall be paid against testing and commissioning on pro-rata basis.</p>	<p>Clause to be deleted.</p> <p>Recommended Payment Terms:</p> <p>Imported Equipment's: For Supply (Import): 100% Material value (CIF value) through Letter of Credit (LC) payable at sight. LC shall be opened on approval of GAD/manufacturing start notice.</p> <p>For installation of import units: 1) 10% Advance along with Order. 2) 40% against receipt of material at site on pro-rata basis. 3) 10% against completion of installation at site on pro-rata basis. 4) 10% against testing and commissioning on pro-rata basis.</p> <p>Any variation in Custom duties, indirect taxes and forex exchange/currency fluctuation shall be in client scope.</p> <p>For Supply, installation, testing and commissioning of Indian equipment's: 1) 20% contract amount shall be paid/payable as an interest-free and non-recoverable Advance along with order and against submission of equivalent value advance bank Guarantee (ABG). ABG shall valid up to the material delivery/dispatch on pro-rata basis. 2) 10% of contract amount shall be paid against approval (general arrangement drawing (GAD) on pro-rata basis. 3) 30% of contract amount shall be paid against production start notice on pro-rata basis. 4) 30% of contract amount shall be paid against material delivery at site on pro-rata basis. 5) 05% of contract amount shall be paid against installation at site on pro-rata basis. 6) 05% of contract amount shall be paid against testing and commissioning on pro-rata basis.</p>



Volume	Portion	Page	Clause	Existing para / sub- para/ clause	Amendments			
					Add	Delete	Modified	Modified para/ / sub- para/ clause/ New Clause
Volume-1	NIT	2	1.1.2Key Details	Date & time of Submission of Tender 10.11.2020 up to 15:00 Hrs. Date & time of opening of Tender 10.11.2020 @15:30 Hrs.			√	Date & time of Submission of Tender 25.11.2020 up to 15:00 Hrs. Date & time of opening of Tender 25.11.2020 @15:30 Hrs.
Volume-1	NIT	5	1.1.4.2(1)	Work Experience: "The tenderers will be qualified only if they satisfy the Work Experience criteria for Similar Work** as given below during last seven years ending 30.06.2020"			√	Work Experience: "The tenderers will be qualified only if they satisfy the Work Experience criteria for Similar Work** as given below during last seven Ten years ending 30.06.2020 : 31.08.2020 "
Volume-1	NIT	6	1.1.4.2(2)	Experience of Design, Manufacture, Supply, Installation, Testing & Commissioning of at least 50 Escalators for the Mass rapid transit system (Airport, Metro, sub-urban Railways etc,) successfully completed during last 7 years.			√	Experience of Design, Manufacture, Supply, Installation, Testing & Commissioning of at least 50 Escalators for the Mass rapid transit system (Airport, Metro, sub-urban Railways etc,) successfully completed during last 7 10 years.
Volume-1	NIT	7	Note	Note 3. Value of successfully completed portion of any on-going work up to 30.06.2020 will also be considered for qualification of work experience criteria. 4. For completed works, value of work done shall be updated to 30.06.2020 price level assuming 5% inflation for Indian Rupees every year and 2% for foreign currency portions per year. Selling rate of exchange at the close of business of the State Bank of India on the day twenty eight days before the latest date of Tender Submittal shall be considered for calculating equivalent value in INR			√	Note 3. Value of successfully completed portion of any on-going work up to 30.06.2020 31.08.2020 will also be considered for qualification of work experience criteria 4. For completed works, value of work done shall be updated to 30.06.2020 31.08.2020 price level assuming 5% inflation for Indian Rupees every year and 2% for foreign currency portions per year. Selling rate of exchange at the close of business of the State Bank of India on the day twenty eight days before the latest date of Tender Submittal shall be considered for calculating equivalent value in INR
Volume-1	NIT	9	Bid Capacity	A = Maximum of the value of works executed in any one year during the last five financial years (updated to 30.06.2020 price level assuming 5% inflation for Indian Rupees every year and 2% for foreign currency portions per year). B = Value of existing commitments (as on 30.06.2020) for on-going works during period of 36 months w.e.f. 01.07.2020 Note Value of existing commitments for on-going construction works during period of 36 months w.e.f. 01.07.2020 has to be submitted by the tenderer in Annexure-3B. These data shall be certified by the Chartered Accountant with his stamp and signature.			√	A = Maximum of the value of works executed in any one year during the last five financial years (updated to 30.06.2020 31.08.2020 price level assuming 5% inflation for Indian Rupees every year and 2% for foreign currency portions per year). B = Value of existing commitments (as on 30.06.2020 31.08.2020) for on-going works during period of 36 months w.e.f. 01.07.2020 01.09.2020 Note Value of existing commitments for on-going construction works during period of 36 months w.e.f. 01.07.2020 01.09.2020 has to be submitted by the tenderer in Annexure-3B. These data shall be certified by the Chartered Accountant with his stamp and signature.
Volume-1	NIT	11	Annexure-1	In equivalent INR at as on 30.06.2020 price level			√	In equivalent INR at as on 30.06.2020 31.08.2020 price level
Volume-1	NIT	14	Annexure 3B work in Hand	Value of balance work yet to be done in Rupee equivalent as on 30.06.2020			√	Value of balance work yet to be done in Rupee equivalent as on 30.06.2020 31.08.2020
Volume-1	NIT	16 & 17	Annexure-5 PQ checklist	4. Specific Work Experience Has the Applicant completed the work as below during last seven years ending 30.06.2020: 5. Experience of heavy duty Escalators Experience of Design, Manufacture, Supply, Installation, Testing & Commissioning of at least 50 Escalators for the Mass rapid transit system (Airport, Metro, sub-			√	4. Specific Work Experience Has the Applicant completed the work as below during last seven Ten years ending 30.06.2020 31.08.2020 ; 5. Experience of heavy duty Elevators Experience of Design, Manufacture, Supply, Installation, Testing & Commissioning of at least 50 Escalators for the Mass rapid transit system (Airport, Metro, sub-urban Railways

Volume	Portion	Page	Clause	Existing para / sub- para/ clause	Amendments			
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				urban Railways etc,) successfully completed during last 7 years.				etc,) successfully completed during last 7 10 years.
Volume-1	Annexure of ITT	21	Annexure-4 Appendix-G	<p>(a) Chief Project Manager– Engineering Graduate having minimum 12 years of total experience out of which 5 years should be in projects of similar nature.</p> <p>(b) Project Manager – Diploma having minimum 8 years of total experience out of which 4 years should be in projects of similar nature.</p> <p>(c) Design Engineer, Production Engineer, Escalator Specialist and Mechanical Engineer – Engineering Diploma having minimum 5 years of total experience out of which 3 years should be in project of similar nature.</p> <p>(d) Installation Specialist – Engineering Diploma having minimum 5 years of total experience out of which 3 years should be in projects of similar nature.</p> <p>(e) SHE Organisation– As per the qualification and experience given in General Instruction-2 of UPMRC SHE manual (shall include an Accident Prevention Officer).</p> <p>(f) Civil & Structural Engineer – Engineering Graduate/Diploma having minimum 5 years of total experience out of which 2 years should be in projects of similar nature.</p> <p>(g) Surveyor- Diploma with minimum 5 years of total experience or ITI with 8 years experience along with necessary equipment for surveying of escalator shaft.</p>			√	<p>(a) Chief Project Manager– Engineering Graduate having minimum 12 years of total experience out of which 5 years should be in projects of similar nature.. Deployment within 30 days of award of contract till contact closer.</p> <p>(b) Project Manager – Diploma having minimum 8 years of total experience out of which 4 years should be in projects of similar nature. Deployment at site within 30 days of award of contract till contact closer.</p> <p>(c) Design Engineer, Production Engineer, Escalator Specialist and Mechanical Engineer Engineering Diploma having minimum 5 years of total experience out of which 3 years should be in project of similar nature. Deployment within 30 days of award of contract till final design is approved.</p> <p>(d) Installation Specialist – Engineering Diploma having minimum 5 years of total experience out of which 3 years should be in projects of similar nature. Deployment 60 days before start of the respective activities.</p> <p>(e) SHE Organisation– As per the qualification and experience given in General Instruction-2 of UPMRC SHE manual (shall include an Accident Prevention Officer). Deployment 60 days before start of the respective activities.</p> <p>(f) Civil & Structural Engineer – Engineering Graduate/Diploma having minimum 5 years of total experience out of which 2 years should be in projects of similar nature.. Deployment 60 days before start of the respective activities.</p> <p>(g) Surveyor- Diploma with minimum 5 years of total experience or ITI with 8 years experience along with necessary equipment for surveying of escalator shaft. Deployment 60 days before start of the respective activities</p>
Volume-1	ITT	20	C 7.2	The design of the Works shall be undertaken by a designer or the design wing of the tenderer (the Designer) who has experience in the design of similar works as in scope of tender. Approval of the proposed Designer intended to be engaged shall be obtained from UPMRC before engaging the Designer by the contractor.			√	The design of the Works shall be undertaken by a designer or the design wing of the tenderer (the Designer) who has experience in the design of similar works as in scope of tender. Approval of the proposed Designer intended to be engaged shall be obtained from UPMRC before engaging the Designer by the contractor.
Volume-1	ITT	23	C 18.1	In case of JV or consortium, the Bank Guarantee for Tender Security shall be in the name of JV or consortium only and not from individual members failing which the tender shall be summarily rejected. The Tender Guarantee so submitted shall be supported with a joint undertaking signed by each of the joint Venture / Consortium member, indicating that they have backed up the Tender Guarantee value in proportion to their share specified in the Consortium/ Joint Venture Agreement / Memorandum of Understanding, on pro-rata basis.			√	In case of JV or consortium, the Bank Guarantee for Tender Security shall be in the name of JV or consortium only and not from individual members failing which the tender shall be summarily rejected. The Tender Guarantee so submitted shall be supported with a joint undertaking signed by each of the joint Venture / Consortium member, indicating that they have backed up the Tender Guarantee value in proportion to their share specified in the Consortium/ Joint Venture Agreement / Memorandum of Understanding, on pro-rata basis. In case of JV or consortium lead member may submit the tender security on behalf of consortium.

Volume	Portion	Page	Clause	Existing para / sub- para/ clause	Amendments			
					Add	Delete	Modified	Modified para/ / sub- para/ clause/ New Clause
Volume-2	SCC	25	44 of SCC	<p>Additional Clause Deployment of Personnel by the Employer</p> <p>The Contractor shall deploy personnel sponsored by the Employer during the Contract Period in areas stipulated in the Employer's Requirements.</p> <p>The travel expenses, salary and allowances, boarding and lodging expenses of these sponsored personnel shall be borne by the Employer but the Contractor shall provide other facilities required for the purpose of performing their duties. The sponsored personnel shall be under the technical and administrative control of the Contractor.</p>		√		Deleted
Volume-2	SCC	17	24 of SCC 11.1.1	e) Tenderers shall submit an undertaking that neither they nor their sub-contractors / sub-vendors shall avail the deemed export benefit as the same shall be availed directly by UPMRC and retained.			√	<p>(e) The bidder shall be eligible for availing concessional duty benefits under Chapter 98.01 of Customs Tariff Act for Project imports. After award of contract, at the written request of the Contractor, UPMRC can facilitate the contractor with sponsoring/recommendation letter for getting themselves registered for availing the Project Import Benefits. The contractor shall also ensure completion of all formalities including closer of Project Import etc., if any, with the custom authorities in terms of the Regulations.</p> <p>In case deemed export benefits are available, at any stage during execution of the contract, the contractor shall be required to avail the same and pass on the benefits to UPMRCL, for availing the said benefits, necessary documents in accordance with the laws of the land and extant policies of the Government of India shall be followed by the contractor and in such cases, prices will be adjusted and paid accordingly.</p>
Volume-3	GS (Chapter-5)	5-1 of 7	5.1.1	The Contractor shall maintain and implement a Quality Management System that shall remain in effect during the execution of the Works. The Contractor's Quality Management System shall be based on the International Standard ISO 9001/9002:2000			√	The Contractor shall maintain and implement a Quality Management System that shall remain in effect during the execution of the Works. The Contractor's Quality Management System shall be based on latest edition of the International Standard ISO 9001/9002:2000
Volume-4	ERPS (Chepter-5)	31 of 201	5.2.12(b)	Tracks and Hand rail Guide- Zinc plated with stainless profiles or Stainless steel			√	Tracks and Hand rail Guide- Zinc plated with stainless steel profiles or Stainless steel
Volume-4	ERPS (Chepter-5)	37	5.5.6	The design of the fixing of the step to the step axle including detail of bushing, pin or any other means, shall be of proven design and have been in used for an extended period in existing mass transit system(s) at a speed of 0.65m/s. The fixture shall permit quick and easy removal of step without dismantling any part of the step chain and the balustrade.			√	The design of the fixing of the step to the step axle including detail of bushing, pin or any other means, shall be of proven design and have been in used for an extended period in existing mass transit system(s) at a speed of 0.65m/s. 0.5 m/s The fixture shall permit quick and easy removal of step without dismantling any part of the step chain and the balustrade.

Volume	Portion	Page	Clause	Existing para / sub- para/ clause	Amendments			
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Volume-4	ERPS (Chepter-5)	52	5.23	Variable speed control/drive shall be provided. The control shall be integrated with the escalator control. It shall be able to operate the escalator at nominal speed of 0.65 m/s and reduced service (rated) speed of 0.50 m/s, with all other requirements and performance remain unchanged. An easily accessible manual change-over switch, with clear label to the "Engineer" acceptance, for selecting the normal and reduced speed, shall be provided in the controller. (a) Service (rated) speed - Nominal 0. 65m/s and 0. 5 m/s			√	Variable speed control/drive shall be provided. The control shall be integrated with the escalator control. It shall be able to operate the escalator at nominal speed of 0.65 0.5 m/s and reduced service (rated) speed of 0.50 0.2 m/s , with all other requirements and performance remain unchanged. An easily accessible manual change-over switch, with clear label to the "Engineer" acceptance, for selecting the normal and reduced speed, shall be provided in the controller. (a) Service (rated) speed - Nominal 0.65m/s and 0. 5 m/s
Volume-4	ERPS (Chepter-5)	33	5.3.1	Structural truss shall be of sufficient strength to carry the dead weight of the escalator which shall include any exterior claddings and decking extensions plus passenger load. Passenger loading shall be assumed as 5000 N/m ² (load carrying areas = nominal width of escalator x distance between supports). The truss shall be designed to retain the steps and the running gear should the track system fails. The truss shall also be designed to support an additional load of the outer cladding panels and truss claddings up to a maximum load of 300N/m ² .			√	Structural truss shall be of sufficient strength to carry the dead weight of the escalator which shall include any exterior claddings and decking extensions plus passenger load. Passenger loading shall be assumed as 5000 N/m ² (load carrying areas = nominal width of escalator x distance between supports). The truss shall be designed to retain the steps and the running gear should the track system fails. The truss shall also be designed to support an additional load of the outer cladding panels and truss claddings up to a maximum load of 300N/m² 120N/ m² .
Volume-4	ERPS (Chepter-5)	34	5.3.5	Non-slip, ribbed aluminum surfaced comb of galvanized with yellow – coloured diecast. The alternatives like coloured fiber, for the Comb plate is subject to the Employers acceptance at the design stage. Corrosion resisting aluminum alloy comb teeth shall be provided at both landings of each escalator. The comb plate structure shall withstand a load of 6000N/m ² with a deflection not exceeding 2.0 mm. The teeth of the combs shall properly mesh with the cleats on the step treads and shall be designed to permit simple replacement in sections. The yellow colour light in the pits shall be provided to demarcate the moving and the non-moving parts of the escalators. The escalator Contractor shall make suitable provision in escalator panels for the UPS power connection from the station UPS for comb light, pit light,etc.			√	Non-slip, ribbed aluminum surfaced comb of galvanized with yellow – coloured diecast. The alternatives like coloured fiber, for the Comb plate is subject to the Employers acceptance at the design stage. Corrosion resisting aluminum alloy comb teeth shall be provided at both landings of each escalator. The comb plate structure shall withstand a load of 6000N/m ² with a deflection not exceeding 2.0 mm. The teeth of the combs shall properly mesh with the cleats on the step treads and shall be designed to permit simple replacement in sections. The yellow colour light in the pits shall be provided to demarcate the moving and the non-moving parts of the escalators. The escalator Contractor shall make suitable provision in escalator panels for the UPS power connection from the station UPS for comb light, pit light,etc.
Volume-4	ERPS (Chepter-5)	35	5.3.9(a)	The distance between the inner decking immediately below the handrail shall not be less than 1150 mm (with tolerance of +0.4mm to -2mm).			√	The distance between the inner decking immediately below the handrail shall not be less than 1150 1100 mm (with tolerance of +0.4mm to -2mm). as per EN115.
Volume-4	ERPS (Chepter-5)	37	5.4.7	The handrail entry boot shall be made up of Stainless Steel sheets having a thickness of 1.6 mm				The handrail entry boot shall be made up of Stainless Steel sheets having a thickness of 1.6 1.5mm
Volume-4	ERPS (Chepter-5)	37	5.5.5	Step chains shall be of the endless roller type located on both sides of the moving step. The chains shall be provided in matched lengths and be of high quality steel construction incorporating links, pins, bushes, axles and rollers with three pitches between adjacent rollers. The chain rollers shall be located inside the chain links with relieving curve.			√	Step chains shall be of the endless roller type located on both sides of the moving step. The chains shall be provided in matched lengths and be of high quality steel construction incorporating links, pins, bushes, axles and rollers with three pitches between adjacent rollers. The chain rollers shall be located inside the chain links with relieving curve.

Volume	Portion	Page	Clause	Existing para / sub- para/ clause	Amendments			
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Volume-4	ERPS (Chepter-5)	49	5.14.2	The conductor shall be of stranded conductor composed of plain annealed copper wire complying with IEC 228, Class2.			√	The conductor shall be of stranded conductor composed of plain annealed copper wire complying with IEC 228, Class2 .
Volume-4	ERPS (Chepter-5)	25	4.15 (2)	The Balustrade of escalator shall be either of Inclined Box Type Stainless Steel or of Glass with Newel Wheels for both type of Balustrades			√	The Balustrade of escalator shall be either of Inclined Box Type Stainless Steel or of Glass with Newel /rollers Wheels for both type of Balustrades
Volume-7	BOQ	8	1.11 Tender Pricing	Existing para is (a) & (b)	√			(c) The price shall not be unbalanced. The price quoted under schedule statement - 1 (Design) shall not exceed 2% of the total quoted price. The combined cost of statement - 1, 2 & 3 should not exceed 75% of the total contract value. The cost of maintenance in statement-5 during Two years of DLP should not be less than 6% and should not be less than 3% for the third year in statement - 9. In event of non-compliance of above by the successful bidder, the employer shall readjust the cost of various schedules on pro-rata basis, keeping total cost same, which shall be binding on the bidder



KNPAGE-04:"Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Escalators including Maintenance of 02 (two) Years during Defect Liability Period (DLP) and 01 (one) year comprehensive Annual Maintenance beyond DLP Period for Kanpur (Corridor- I & II) & Agra (Corridor-I) Mass Rapid Transport System Project Phase-I.

NOTICE INVITING TENDER (NIT)

1.1 GENERAL

1.1.1 Name of Work:

Uttar Pradesh Metro Rail Corporation (UPMRC) Ltd., who has been assigned to carry out interim works for Kanpur& Agra Metro Rail Project, invites open tenders from eligible applicants, who fulfil qualification criteria as stipulated in Clause 1.1.4 of NIT, for the work, "Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Escalators including Maintenance of 02 (two) Years during Defect Liability Period (DLP) and 01 (one) year comprehensive Annual Maintenance beyond DLP Period for Kanpur(Corridor-I & II) & Agra(Corridor-I) Mass Rapid Transport System Project Phase-I."

The brief scope of the work and site information is provided in ITT Clause A1 (Volume-1) & Employer's Requirements (Volume-3& 4)

1.1.2 Key details :

Approximate cost of work	Rs. 80 Crores
Tender Security amount	Rs. 80 Lakhs
Completion period of the Work	36 months
Tender documents on sale:	From 25.09.2020 to 16.10.2020 (between 09:30 hrs to 17:30 hrs) on working days
Cost of Tender documents	INR 23,600/- (inclusive of 18% GST) (Demand Draft on a scheduled commercial bank based in India in favour of "Uttar Pradesh Metro Rail Corporation Ltd") payable at Lucknow
Last date of Seeking Clarification	19.10.2020
Pre-bid Meeting	21.10.2020 @ 1500 Hrs
Last date of issuing addendum	28.10.2020
Date & time of Submission of Tender	40.11.2020 25.11.2020 upto 15:00 Hrs.
Date & time of opening of Tender	40.11.2020 25.11.2020 @ 15:30 Hrs.
Authority and place for purchase of tender documents, seeking clarifications and submission of completed tender documents.	Chief Electrical Engineer/Project-II Uttar Pradesh Metro Rail Corporation, Administrative Building, VipinKhand, Gomti Nagar, Lucknow-226010. Email: loveleenkumar.cee@gmail.com



KNPAGE-04: "Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Escalators including Maintenance of 02 (two) Years during Defect Liability Period (DLP) and 01 (one) year comprehensive Annual Maintenance beyond DLP Period for Kanpur (Corridor- I & II) & Agra (Corridor-I) Mass Rapid Transport System Project Phase-I.

- (ii) an Environmental and Social Covenant located in Annexure 9B of ITT.
- (xiii) The Tenderer/Contractor grants the Employer, the EIB and auditors appointed by either of them, as well as any authority or European Union Institution or body having competence under European Union law, the right to inspect and copy the books and records of the tenderer, contractor, supplier or consultant in connection with any Bank-financed contract.

1.1.4.2 Minimum Eligibility Criteria:

A. Work Experience: The tenderers will be qualified only if they satisfy the criteria 1 & 2 as given below:

Eligibility & Qualification Criteria			Compliance Requirement		
SN	Factor	Requirement	Single Entity	Joint Venture/Consortium (existing or intended)	
				All Parties Combined	Each Member
	Experience				
1	Specific work Experience	<p>Work Experience: <i>"The tenderers will be qualified only if they satisfy the Work Experience criteria for Similar Work** as given below during last seven Ten years ending 30.06.2020: 31.08.2020"</i></p> <p>At least One (1) "Similar Work"*** of value of Rs 64 Crores or more If the above "Similar Work**" of value Rs 64 Crores or more has been done by the foreign partner of JV/ Consortium and was done in the country of the foreign partner then in addition to this work, the foreign partner must have done at least one Similar Work equal to or more than Rs 32 Crores outside the country of the foreign partner.</p> <p style="text-align: center;">OR</p> <p>Two (2) "Similar Work"*** each of value of Rs 40 Crores or more If both the above the "Similar Work"*** of value Rs 40 Crores or more has been done by the foreign partner of JV/Consortium, then either at least one of these two work should have been done outside the country of the foreign</p>	Must meet requirement	Must meet requirement	N/A



KNPAGE-04:"Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Escalators including Maintenance of 02 (two) Years during Defect Liability Period (DLP) and 01 (one) year comprehensive Annual Maintenance beyond DLP Period for Kanpur (Corridor- I & II) & Agra (Corridor-I) Mass Rapid Transport System Project Phase-I.

		<p>partner and if not, then in addition to this the foreign partner must have done at least one Similar Work equal to value of Rs 32 Crores or more outside the country of the foreign partner.</p> <p style="text-align: center;">OR</p> <p>Three (3) "Similar Work"**each of value of Rs 32 Crores or more If all the above three Similar Work of Rs 32 Crores or more or two out of three works have been done by foreign partner of JV, then either at least one of these three work should have been done outside the country of the foreign partner.</p>			
2	Experience of Heavy Duty Escalators	<p>Experience of Design, Manufacture, Supply, Installation, Testing & Commissioning of at least 50 Escalators for the Mass rapid transit system (Airport, Metro, Sub-urban Railways etc.) successfully completed during last 7 10 years.</p> <p>If the sole Tenderer or any/ all members of JV/JVA/Consortium constituting the Tenderer is / are from foreign country, then the member responsible for manufacturing & supplying of Escalator should have an international experience of manufacturing and supplying minimum 50 similar Escalators each in at least one country excluding the country of the origin. Similar Escalators implies Escalators for the mass rapid transit system (Airport, Metro, Sub-urban Railways etc.).</p>	Must meet requirement	Must meet requirement	N/A

Note:

1. Explanation to item1 Specific Work Experience:



KNPAGE-04:"Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Escalators including Maintenance of 02 (two) Years during Defect Liability Period (DLP) and 01 (one) year comprehensive Annual Maintenance beyond DLP Period for Kanpur (Corridor- I & II) & Agra (Corridor-I) Mass Rapid Transport System Project Phase-I.

** "Similar Work" for this Tender shall be "Design, Manufacturing, Supply, Installation, Testing and Commissioning of all types of Escalators/ Travelators."

2. The tenderer shall submit details of work executed by them, in the Performa of **Annexure-1** for the works to be considered for qualification of work experience criteria. Documentary proof such as completion certificates from client clearly indicating the nature/scope of work, actual completion cost and actual date of completion for such work should be submitted. ***The offers submitted without this documentary proof shall not be evaluated. In case the work is executed for private client, copy of work order, bill of quantities, bill wise details of payment received certified by C.A. (Chartered Accountant), T.D.S. (Tax deducted at Sources) certificates for all payments received and copy of final/ last bill paid by client shall be submitted.***
3. Value of successfully completed portion of any on-going work up to **30.06.2020 31.08.2020** will also be considered for qualification of work experience criteria.
4. For completed works, value of work done shall be updated to **30.06.2020 31.08.2020** price level assuming 5% inflation for Indian Rupees every year and 2% for foreign currency portions per year. **Selling rate of exchange at the close of business of the State Bank of India on the day twenty eight days before the latest date of Tender Submittal shall be considered for calculating equivalent value in INR.**
5. In case of joint venture / Consortium, full value of the work, if done by the same joint venture shall be considered. However, if the qualifying work(s) were done by them in JV/Consortium having different constituents, then the value of work as per their percentage participation in such JV/Consortium shall be considered.
6. **A JV /Consortium member can participate in only one of the bidding JV/Consortium.**
7. The Joint venture/Consortium agreement must contain a clause **stating "All the partners are jointly and severally liable to UPMRC"**
- B. **Financial Standing:** The tenderers will be qualified only if they have minimum financial capabilities as below:
 - (i) **T1 – Liquidity:** The tenderer must have liquidity equal to cash flow requirement of value Rs 3.81 Crore for the contract.
 - a) The liquidity shall be ascertained from Net Working Capital {Current Assets – (current liabilities + provisions)} as per latest audited balance sheet and/or from the Banking reference(s).
 - b) Banking reference(s) should contain in clear terms the amount that the Bank will be in a position to lend for this work to the applicant/member of the Joint Venture/Consortium. In case the Net Working Capital (as seen from the Balance Sheet) is negative, only the Banking reference(s) will be considered, otherwise the aggregate of the Net Working Capital and submitted Banking reference(s) will be considered for working out the Liquidity.
 - c) The Banking references should be from a Scheduled Bank in India or from an International Bank of repute (in case of foreign vendors) acceptable to UPMRC as per the standard proforma provided in NIT as Annexure-6 and it should not be more than 3 months old as on the date of submission of bids.



KNPAGE-04:"Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Escalators including Maintenance of 02 (two) Years during Defect Liability Period (DLP) and 01 (one) year comprehensive Annual Maintenance beyond DLP Period for Kanpur (Corridor- I & II) & Agra (Corridor-I) Mass Rapid Transport System Project Phase-I.

- Where a work is undertaken by a group, only that portion of the contract which is undertaken by the concerned applicant/member should be indicated and the remaining done by the other members of the group be excluded. This is to be substantiated with documentary evidence.

(iv) Bid Capacity Criteria :

Bid Capacity: The tenderers will be qualified only if their available bid capacity is more than the approximate cost of work as per NIT. Available Bid capacity will be calculated based on the following formula:

$$\text{Available Bid Capacity} = 2 \times A \times N - B$$

Where,

A = Maximum of the value of works executed in any one year during the last five financial years (updated to ~~30.06.2020~~ **31.08.2020** price level assuming 5% inflation for Indian Rupees every year and 2% for foreign currency portions per year).

N = No. of years prescribed for completion of the work =3.0 years

B = Value of existing commitments (**as on 30.06.2020 31.08.2020**) for on-going works during period of **36 months w.e.f. 01.07.2020 01.09.2020**

Notes:

- Financial data for latest last five financial years has to be submitted by the tenderer in **Annexure-3A** along with audited financial statements. The financial data in the prescribed format shall be certified by the Chartered Accountant with his stamp and signature in original.
- Value of existing commitments for on-going construction works during period of **36 months** w.e.f. **01.07.2020 01.09.2020** has to be submitted by the tenderer in **Annexure-3B**. These data shall be certified by the Chartered Accountant with his stamp and signature.
- In the case of a group, the above formula will be applied to each member to the extent of his proposed participation in the execution of the work. If the proposed % is not provided, equal participation will be assumed.

1.1.4.3 The tender submission of Tenderers, who do not qualify the minimum eligibility criteria & bid capacity criteria stipulated in the clauses 1.1.4.1 to 1.1.4.2 above, shall not be considered for further evaluation and therefore rejected. The mere fact that the tenderer is qualified as mentioned in sub clause 1.1.4.1 to 1.1.4.2 shall not imply that his bid shall automatically be accepted. The same should contain all technical data as required for consideration of tender prescribed in the ITT.

1.1.5 The Tender documents consist of :

Volume 1

Notice Inviting Tender (including Annexures)
Instructions to Tenderers (including Annexures)
Form of Tender (including Appendices)



KNPAGE-04:"Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Escalators including Maintenance of 02 (two) Years during Defect Liability Period (DLP) and 01 (one) year comprehensive Annual Maintenance beyond DLP Period for Kanpur (Corridor- I & II) & Agra (Corridor-I) Mass Rapid Transport System Project Phase-I.

ANNEXURE-1
WORK EXPERIENCE

Applicant's legal name Date.....

Group Member's legal name..... Pageof..... pages

For similar works as per clause no. 1.1.4.2 (A) (considering escalation as per Notes no. 4- Clause 1.1.4.2 (A))

1.1.4.2 (A):- Work Experience (shall be submitted separately for each work claimed for work experience)		
Item	Information	
Contract Identification		
Award date		
Completion date		
Employer's Name		
Employer's Address:		
Telephone / Fax number: E Mail		
Role in Contract (Individual/JV-JVA member)	Individual	JV/Consortium Member
Completion Cost	Currency (as stated in Clients Certificate)	In equivalent INR at as on 30.06.2020 31.08.2020 price level
If JV/ Consortium member specify percentage participation in contract & amount (Please refer Note-1)	% participation	In equivalent INR at as on 30.06.2020 31.08.2020 price level
Quantum of similar work in support of clause no. 1.1.4.2A.		In case of JV/JVA, actual works executed by the Applicant (duly substantiated with Client Certificate)

NOTE:

1. Only the value of contract as executed by the applicant/member in his own name should be indicated Where a work is undertaken by a JV/Consortium, only that portion of the contract which is undertaken by the concerned applicant/member should be indicated and the remaining done by the other members of the group be excluded. This is to be substantiated with documentary evidence.

2. Separate sheet for each work along with Clients Certificate to be submitted.

Signature of the Applicant
Seal of the Applicant



KNPAGE-04: "Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Escalators including Maintenance of 02 (two) Years during Defect Liability Period (DLP) and 01 (one) year comprehensive Annual Maintenance beyond DLP Period for Kanpur (Corridor- I & II) & Agra (Corridor-I) Mass Rapid Transport System Project Phase-I.

ANNEXURE- 3B WORKS IN HAND

Applicant's legal name Date.....

Group Member's legal name..... Pageof pages

Name and brief particulars of contract (Clearly indicate the part of the work assigned to the applicant(s))	Name of client with telephone number and fax number	Contract Value In Rupees Equivalent (Give only the value of work assigned to the applicant(s) (Assume inflation as given in Annexure 3)	Value of balance work yet to be done in Rupee equivalent as on 30.06.2020-31.08.2020	Date of Completion as per Contract Agreement	Expected Completion Date	Delay if any, with reason	Value of work to be done in 2020-21	Value of work to be done in 2021-22.	Value of work to be done in 2022-23	Value of work to be done in 2023-24

Signature of the Applicant
Seal of the Applicant



KNPAGE-04: "Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Escalators including Maintenance of 02 (two) Years during Defect Liability Period (DLP) and 01 (one) year comprehensive Annual Maintenance beyond DLP Period for Kanpur (Corridor- I & II) & Agra (Corridor-I) Mass Rapid Transport System Project Phase-I.

ANNEXURE-5

PREQUALIFICATION OF APPLICANT- CHECKLIST

S. No.	Criteria	Yes	No
1	Has Applicant have conflict of interest		
2	Has the Applicant on the date of submission of an application or of a bid or on the date of award of a contract, have been the subject of a conviction by final judgment for one of the reason given under para A3.8 of ITT.		
3	Any Non-performance of a contract occurred within the last two (2) years prior to the deadline for application submission.		
4	<p>Specific Work Experience Has the Applicant completed the work as below during last seven Ten years ending 30.06.2020 31.08.2020;</p> <p>At least One (1) "Similar Work"** of value of Rs 64 Crores or more If the above "Similar Work"** of value Rs 64 Crores or more has been done by the foreign partner of JV/ Consortium and was done in the country of the foreign partner then in addition to this work, the foreign partner must have done at least one Similar Work equal to or more than Rs 32 Crores outside the country of the foreign partner.</p> <p style="text-align: center;">OR</p> <p>Two (2) "Similar Work"** each of value of Rs 40 Crores or more If both the above the "Similar Work"** of value Rs 40 Crores or more has been done by the foreign partner of JV/Consortium, then either at least one of these two work should have been done outside the country of the foreign partner and if not, then in addition to this the foreign partner must have done at least one Similar Work equal to value of Rs 32 Crore or more outside the country of the foreign partner.</p> <p style="text-align: center;">OR</p> <p>Three (3) "Similar Work" **each of value of Rs 32 Crores or more If all the above three Similar Work of Rs 32 Crores or more or two out of three works have been done by foreign partner of JV, then either at least one of these three work should have been done outside the country of the foreign partner.</p> <p style="text-align: center;">** "Similar Work" for this Tender shall be "Design, Manufacturing, Supply, Installation, Testing and Commissioning of all types of Escalators/ Travelators."</p>		



KNPAGE-04:"Design, Manufacturing, Supply, Installation, Testing and Commissioning of Heavy Duty Escalators including Maintenance of 02 (two) Years during Defect Liability Period (DLP) and 01 (one) year comprehensive Annual Maintenance beyond DLP Period for Kanpur (Corridor- I & II) & Agra (Corridor-I) Mass Rapid Transport System Project Phase-I.

5	<p>Experience of heavy duty Escalators</p> <p>Experience of Design, Manufacture, Supply, Installation, Testing & Commissioning of at least 50 Escalators for the Mass rapid transit system (Airport, Metro, Sub-urban Railways etc.) successfully completed during last 7 10 years.</p> <p>If the sole Tenderer or any/ all members of JV/JVA/Consortium constituting the Tenderer is / are from foreign country, then the member responsible for manufacturing & supplying of Escalator should have an international experience of manufacturing and supplying minimum 50 similar Escalators each in at least one country excluding the country of the origin. Similar Escalators implies Escalators for the mass rapid transit system (Airport, Metro, Sub-urban Railways etc.).</p>		
6	Does the Applicant have minimum Liquidity of INR 3.81 Crore or more		
7	Does the Lead member have Profit before Tax Positive in any 2 (two) years, out of the last five audited financial years.		
8	Does the Applicant having Net worth positive in last two financial year. In case of JV does each member has Positive Net worth in last two financial year.		
9	Does the 'Average Annual Turn Over' of Applicant during the last five financial years is INR 21.33 Crore or more.		
10	Does the Applicant have Bid Capacity of INR 80 Crore or more		

Note:

1. A "YES" Answer to any question 1,2, 3 will disqualify the Applicant.
2. A "NO" Answer to any question 4, 5, 6, 7, 8, 9& 10 will disqualify the Applicant.

Signature of Applicant



ANNEXURE - 4
APPENDIX G - PROJECT ORGANISATION
MINIMUM KEY STAFF REQUIREMENT

S. No.	DESIGNATION	No
a	Chief Project Manager	1
b	Project Manager	2
c	Design Engineer	2
d	Production Engineer	2
e	Escalators Specialist	2
f	Mechanical Engineer	1
g	Installation Specialist	2
h	SHE Organisation	AS PER CONDITIONS OF SHE
i	Civil & Structural Engineer	1
j.	Surveyor	1

- (a) **Chief Project Manager**– Engineering Graduate having minimum 12 years of total experience out of which 5 years should be in projects of similar nature. Deployment within 30 days of award of contract till contact closer.
- (b) **Project Manager** –Diploma having minimum 8 years of total experience out of which 4 years should be in projects of similar nature. Deployment within 30 days of award of contract till contact closer.
- (c) **Design Engineer, Production Engineer, Escalator Specialist and Mechanical Engineer**– Engineering Diploma having minimum 5 years of total experience out of which 3 years should be in project of similar nature. Deployment within 30 days of award of contract till final design is approved.
- (d) **Installation Specialist** – Engineering Diploma having minimum 5 years of total experience out of which 3 years should be in projects of similar nature. Deployment 60 days before start of the respective activities
- (e) **SHE Organisation**– As per the qualification and experience given in General Instruction – 2 of UPMRC SHE manual (shall include an Accident prevention officer). Deployment 60 days before start of the respective activities
- (f) **Civil & Structural Engineer** – Engineering Graduate/ Diploma having minimum 5 years of total experience out of which 2 years should be in projects of similar nature. Deployment 60 days before start of the respective activities
- (g) **Surveyor**– Diploma with minimum 5 years of total experience or ITI with 8 years experience along with necessary equipments for surveying of escalator shaft. Deployment 60 days before start of the respective activities

NOTES:

- i) The contractor shall deploy resources as per the above-mentioned minimum requirement and also confirm to deploy manpower over and above the minimum numbers indicated above, if the work requires so.
- ii) These minimum resources are as per the requirements of various activities at different stages of works. All resources need not to be mobilized simultaneously, resources as per the requirement of various stages of works shall be mobilized in accordance with the instructions of the engineer. The decision of the engineer in this regard, shall be final and binding.



C7.1 The Tenderer should note the requirements of warranties and obligations contained in Clause 5.2 of GCC and clause 7 of SCC.

C7.2 The design of the Works shall be undertaken by a designer or the design wing of the tenderer (the Designer) who has experience in the design of similar works as in scope of tender. ~~Approval of the proposed Designer intended to be engaged shall be obtained from UPMRC before engaging the Designer by the contractor.~~

C7.3 The Tenderer shall submit with his Tender either the proposed terms and conditions upon which the Designer would be appointed in the event of acceptance of the Tender (excluding the financial and commercial terms thereof) or at least a statement of the heads (salient features) of such an agreement. The Tenderer should note that, if heads of agreement are supplied with the Tender, the Tenderer may be required to develop such heads into a full agreement during the tender evaluation period and to submit the agreement in its final form prior to award of the Contract.

C7.4 The Tenderer shall confirm that the terms for engagement of the designer will include for certification of the As Build Drawings, and regular inspection of the works to confirm that the construction complies with the intent of the design.

C8. Tender proposed work Program

C8.1 The Tenderer shall submit with his Tender as Annexure-5 to ITT, a Tender Program including design submission which shall indicate how the Tenderer intends to organise and carry out the Works and achieve Stages and complete the whole of the Works by the appropriate Key Dates. Detailed requirements for the Tender Program are set out in Annexure 6 to these Instructions to Tenderers.

C8.2 The Tender Program shall be prepared in terms of weeks from the Date of issue of Letter of Acceptance which shall be the date for Commencement of Works.

C8.3 The Tender Program shall not in any event be construed as a submission of the Works Program under Clause 11 of the SCC.

C8.4 The Tenderer's attention is drawn to the requirement of Clause 11 of the SCC that the Initial proposed Works Program and Design Submission Program shall be submitted within 30 days of date of issue of letter of acceptance which shall be treated as Notice to Proceed. However, the Tenderer should note that he may be required to amplify, explain and develop his Tender Program and the proposed Design Submission Program prior to award of Contract. Such requirement shall be sent by UPMRC in writing.

C9 **NOT USED**

C10. Mile Stone Payment Schedule:

The payment schedule is given in Bill of Quantity/Pricing Document (Volume 7) according to which the interim on account stage payment shall be made to the Contractor.

C11. Sub-Contracts

C11.1 Sub-contracting, excluding design work shall be generally limited to 50% of the Lump Sum price. The terms and conditions of sub-contracts and the payments that have to



duly pledged in favour of "Uttar Pradesh Metro Rail Corporation Ltd".

The tender security shall be submitted in a sealed envelope clearly marked on top "Tender Security for KNPAGE-04". **The Tender Security shall remain valid for a period of 60 days beyond the validity period for the Tender from date of submission (extended date if any) for the Tender.**

~~In case of JV or consortium, the Bank Guarantee for Tender Security shall be in the name of JV or consortium only and not from individual members failing which the tender shall be summarily rejected.~~

~~The Tender Guarantee so submitted shall be supported with a joint undertaking signed by each of the joint Venture / Consortium member, indicating that they have backed up the Tender Guarantee value in proportion to their share specified in the Consortium/ Joint Venture Agreement / Memorandum of Understanding, on pro-rata basis.~~

~~In case of JV or consortium lead member may submit the tender security on behalf of consortium.~~

- C18.2 Any Tender not accompanied by an acceptable Tender Security shall be rejected by the Employer considering it as non-responsive and their Technical package shall not be opened and if opened then it will NOT be evaluated.
- C18.3 The Tender Security of the successful Tenderer shall be returned upon the execution of the Contract and the receipt by the Employer of the Performance Security in accordance with Clause 4.2 of the GCC.
- C18.4 The Tender Security of the unsuccessful Tenderers shall be released after the Contract has been signed with the successful Tenderer.
- C18.5 The Tender Security shall be forfeited:
- (a) If the Tenderer withdraws his Tender during the period of Tender validity; or
 - (b) If the Tenderer does not accept the correction of his Tender price, pursuant to Sub-Paragraph E 5.2 below;
 - (c) If the successful Tenderer refuses or neglects to execute the Contract or fails to furnish the required Performance Security within the time specified by the Employer.

C19. Performance Guarantee, Undertaking and Warranties

The Tenderer shall note that all Guarantees shall be executed prior to signing of the Contract.

The Tenderer shall submit the Guarantees, Undertakings and Warranties as per clause 7 of SCC.

C20. Labour

The Tenderer's attention is especially drawn to Clause 6 of the GCC and Clause 18 of SCC in relation to the responsibility of the Contractor for obtaining an adequate supply of labour, their Rates, Wages and Conditions.

Tenderer shall ensure compliance to Labour Laws as specified in Conditions of Contract on Safety Health and Environment

Tenderers are required to note that the minimum qualification required for labours shall be as per "The Central Electricity Authority Regulations-2010"

C21. Other Contractors



- (d) Taxes and duties paid to the sub-vendors shall not be paid separately and therefore are to be included in the price.
- (e) The bidder shall be eligible for availing concessional duty benefits under Chapter 98.01 of Customs Tariff Act for Project imports. After award of contract, at the written request of the Contractor, UPMRC can facilitate the contractor with sponsoring/recommendation letter for getting themselves registered for availing the Project Import Benefits. The contractor shall also ensure completion of all formalities including closer of Project Import etc., if any, with the custom authorities in terms of the Regulations.

In case deemed export benefits are available, at any stage during execution of the contract, the contractor shall be required to avail the same and pass on the benefits to UPMRCL, for availing the said benefits, necessary documents in accordance with the laws of the land and extant policies of the Government of India shall be followed by the contractor and in such cases, prices will be adjusted and paid accordingly.

(B) Record of Taxes Duties etc.

The Contractor shall maintain complete records in respect of payments made by them for taxes, duties, octroi, and other levies payable to various authorities (except Income Tax or Corporate Tax) and advise the Employer the summary of such payment every month in a format advised by the Employer during execution of the contract.

The detailed records shall however remain open for inspection by the Employer/ Engineer at any time and copies of the records shall be furnished as required by the Engineer. The amount payable/recoverable from the Contractor in accordance with the conditions of the tender will generally be calculated based on these records. However Employer at his sole discretion, if not satisfied with the veracity of records or records are incomplete or otherwise, may separately determine the amount payable/ recoverable from the contractor in accordance with the conditions of the tender, which shall be final and binding.

The Contractor shall also maintain records of the imported components supplied to local manufacturers and actual utilization of the same in the manufacture of complete equipment. The Contractor shall be fully responsible for any loss or misuse of these components in manufacture of equipments.

25. Sub Clause 11.1.3 Price Variation

Following is added to GCC sub Clause 11.1.3

Prices quoted by the tenderer shall be fixed throughout the Tenderers performance of the contract and not subject to variation of any account except where specifically mentioned in the contract conditions along with the price variations formula to be made applicable.

26. Sub Clause 11.2.1 Mobilisation Advance

Mobilisation advance shall be equal to 10% of the contract value. The advance shall be paid in two instalments of 5% each.

In Design & Build Contracts, the second instalment will be paid after approval of Definitive design and acceptance of prototype test.

In case of BOQ contracts, the second instalment will be paid after satisfactory utilization of earlier instalment for the contract after



Contractor to seek an alternative sub-contractor.

If the Contractor fails to provide spare or replacement parts as described in this Sub-clause and these are available from the Contractor's sub-contractor, the Employer shall have the right to obtain such spare and replacement parts from the sub-contractor or any other supplier and any additional cost incurred by the Employer shall be recoverable from the Contractor.

- (d) The Employer may require the Contractor to enter into a Maintenance Contract with the Employer for the System / Machine provided under the Contract under terms and conditions to be mutually agreed.

44. Deleted

45. Additional Clause Indemnity Bond

The contractor shall submit a Indemnity Bond in the format given in Schedule 8 against payments made for Plant and Equipment delivered to Kanpur & Agra.

46. Additional Clause Stage Payment

- a) Application for payments in respect of part deliveries of completed items may be made by the contractor as the work proceeds.
- b) Notwithstanding anything stated herein the employer's representative retains the right to withhold payment on any item due for payment when the services is to be performed is not performed, or is not carried to satisfaction of employers satisfaction.
- c) Stage Payment shall be made as under:



CHAPTER 5

5. QUALITY MANAGEMENT

5.1 Introduction

5.1.1 The Contractor shall maintain and implement a Quality Management System that shall remain in effect during the execution of the Works. The Contractor's Quality Management System shall be based on latest edition of the International Standard ISO 9001/9002:2000 "Model for quality assurance in design, development, production, installation and servicing." The Contractor shall submit its Quality Management System documentation for the Employer's Representative's review as specified in this Chapter.

The Quality Management System documentation shall include, but shall not be limited to the following:

- (1) quality manual;
- (2) quality procedures and work instructions;
- (3) quality plans; and
- (4) inspection and test plans.

5.1.2 The Contractor shall plan, perform and record all quality control activities to ensure that all work is performed in accordance with the requirements of the Contract and is detailed in the quality plans which are required under this Chapter. Such activities shall include, without limitation, the inspections and/or tests expressly or implicitly required by the Contract.

5.1.3 Without prejudice to such requirements, the Employer's Representative may from time to time instruct the Contractor in relation to such further or other inspections and/or tests as are in his opinion appropriate.

5.1.4 Quality audits will be conducted by the Employer's Representative to verify the Contractor's implementation and compliance with the quality management system as specified herein.

5.2 General Requirements

5.2.1 All quality system documents and plans to be submitted shall embrace all activities of the Contractor and sub-contractors of any tier, including its suppliers.

5.2.2 Quality Plans

5.2.2.1 The quality plans to be submitted by the Contractor shall comprise of:

- (1) a Management Quality Plan, for the control of all management related activities;
- (2) Deleted;



- 5.2.7 Heavy duty Escalators shall be self-contained units consisting of truss, tracks, step drive units, steps, step chains, comb plates, handrails, landing plates, driving machines, controls, safety devices, balustrades and all other components required to provide a complete installation. Materials used shall be non-combustible and selected to achieve a fire-resistant installation. The design of the escalators exposed to outdoor conditions shall take into account the adverse effects due to the inclement weather conditions in Kanpur & Agra.
- 5.2.8 Heavy duty Escalator design shall be such that no major repair shall be necessary for a period of at least fifteen (15) years from the date of issue of 'Certificate of Taking Over', assuming that regular inspection and maintenance are carried out in accordance with the manufacturer's recommendations. Major repairs shall consist of repairs to the major components like steps, track system, step chains, main drive system, traction machines, landing plates and tension carriage due to causes other than those attributable to normal wear and tear.
- 5.2.9 Escalator design shall give consideration to fire prevention, elimination of dust and oil trapping configurations, ease of handling, access into the station and easy accessibility for routine maintenance. There shall be provision for passenger guidance through audio system. Speakers shall be provided at suitable location in the escalators itself or at location as specified by employer during approval stage. The volume of the instructions is adjusted so that the instructions are clearly audible to the passengers on board at the time when no train arrived /standing at the station. The instructions shall be provided on "Chip". The "Chip" will be in the scope of the contractor. Speaker's location/layout will be finalized during design stage. It shall be possible to increase or decrease the number of audio instructions to be played or modify the audio instructions as per requirement of Employer however contractor will not be liable for any extra payment on this account during the life time of escalator.
- In addition, the escalator contractor shall provide passenger guidance / Do's and Don'ts for the use of escalators in suitable video format which can be played on the screen provided in the station public areas. Details of the playable format will be finalized during design stage.
- 5.2.10 In the case of adjacent escalators, it shall be possible to remove or replace all components of one unit, without stopping or interfering with the operation of the adjacent unit.
- 5.2.11 Not Used
- 5.2.12 Escalator components shall be protected against corrosion as follows:-
- | | | |
|-----|--|---|
| (a) | (i) Truss, | : - Hot-dip galvanized, minimum thickness 85µm. |
| | (ii) tension carriage, main drive, | Anti-corrosion protective paint (3 layers) |
| | (iii) floor plate and comb plate supporting structure and backing. | Zinc plated |
| (b) | Tracks and Hand rail Guide | : - Zinc plated with stainless steel profiles or Stainless steel. |
| (c) | Step chain | : - Special protection during installation to be provided. |
| (d) | Steps | : - Corrosion proof materials |



Escalator contractor is required to interface with the designated contractor for provision of the same and to finalize location of the commuter instruction board at both landings.

The handrail entry boot shall be made up of Stainless Steel sheets having a thickness of 1.6 **1.5mm**.

There shall be provision of decorative LED Lighting below Handrail profile for Glass balustrade escalators, the details for the same shall be finalized during design stage.

5.5 Steps and Step Chains

- 5.5.1 Each step shall be supported on four wheels, two of which shall be the step chain wheels and shall be capable of carrying the basic load with the safety factor as per clause 5.2.5. Individual step loading shall be assumed as 6000N/m². The design of the mounting of all wheels on the step shall ensure that the centre line of the wheel shall remain perpendicular to the running track under all load conditions. Step dimensions shall have a tread width of at least 400 mm deep and not more than 210 mm high.
- 5.5.2 The step shall be one piece, pressure die-cast, high wear and corrosion resistant aluminum alloy. The step casting shall bear a marking, which clearly indicates the month and the year of manufacture. The ingot materials for die-casting of steps shall be new and not previously used. Certificates of origin and chemical composition for the material shall be provided when required by the "Engineer".
- 5.5.3 Both sides and the rear edge of each step shall be painted with yellow demarcation lines of at least 20mm wide and the paint shall be applied on the entire surface of the step riser and the grooves of the step tread except the walking surface shall remain unpainted in natural aluminium finish.
- 5.5.4 Step riser shall be of a cleat-and-groove type. The grooves shall be painted black and dull finish except those area specified in Clause 5.5.3 above.
- 5.5.5 Step chains shall be of the endless roller type located on both sides of the moving step. The chains shall be provided in matched lengths and be of high quality steel construction incorporating links, pins, bushes, axles and rollers with three pitches between adjacent rollers. The chain rollers shall be located inside the chain links with relieving curve at four locations (toptop-left, toptop-right, top bottom-left and top-bottom right) and shall be easily replaceable without dismantling the links. All chain pins shall be circlipped. Each step chain shall be provided with an automatic tension device to ensure proper tension under varying load conditions. A method shall be provided to shorten the chain by one step to compensate for chain elongation.
- 5.5.6 The design of the fixing of the step to the step axle including detail of bushing, pin or any other means, shall be of proven design and have been in used for an extended period in existing mass transit system(s) at a speed of 0.65m/s **0.5m/s**. The fixture shall permit quick and easy removal of step without dismantling any part of the step chain and the balustrade.
- 5.5.7 Step Chain Pin Pressure
The step chain pin pressure of all escalators shall not exceed 27N/mm²
- 5.5.8 The step shall be type tested according to EN-115.
- 5.5.9 The chain rollers/wheels shall have durable elastomer materials bonded to a metal die case hub/PU Hub. The shore hardness of the tyre materials shall be 92° A to 98° A $92 \pm 3^{\circ}A$ when cured. The bond shall have sufficient strength to avoid de-tying under all load conditions.
- 5.5.10 The diameters and width of chain roller shall be provided as per EN 115 with a minimum diameters of the chain roller and the trailer rollers shall 70 mm. The rollers shall have a minimum width of 20mm however service life of rollers shall be as mentioned in PS Clause No. 8.1.1.



5.22 Maintenance Barrier

A barrier shall be provided for both escalator landings, which shall prevent people for entering the pits and escalator. The barrier shall be painted yellow, made from steel and be of minimum height 900mm. The barrier should be on wheels with lock and easy to handle and shift over a distance of 100 meters, with maximum 2 persons. The design of maintenance barrier shall be approved by the engineer before it is delivered at site.

5.23 Variable Speed Control/Drive

Variable speed control/drive shall be provided. The control shall be integrated with the escalator control. It shall be able to operate the escalator at nominal speed of 0.65 **0.5 m/s** and reduced service (rated) speed of 0.50 **0.2 m/s**, with all other requirements and performance remain unchanged. An easily accessible manual change-over switch, with clear label to the "Engineer" acceptance, for selecting the normal and reduced speed, shall be provided in the controller.

If there is no movement of passenger for adjustable predetermined time (say 3 minutes) (Adjustable between 1-5 minutes) the escalator shall operate at crawling speed 0.2 m/s and further if there is no passenger movement for 10 minutes (adjustable 5-30 minutes) the escalator will stop.

When commuter approaches the escalator, it will start and attain nominal speed.

When escalators detect no load or light load under a predetermined period, the service speed shall decrease to the idling speed (0.2 m/s) or stop after pre-determined time (Adjustable time).

To meet the above requirements, the drive shall be capable of Operating as follows: -

- (a) Service (rated) speed - Nominal 0.65m/s and 0.5 m/s
- (b) Maintenance / idling speed - < 0.2m/s.
- (c) Stop, if No Load for predetermined time (Adjustable from 5 to 30 minutes)

OEM shall also provide suitable harmonic filters to eliminate harmonics. Ceiling limit for total harmonic distortion (THD) shall be as per IEEE519-1992.

5.24 Earthing System

All the escalator equipment, structures and other metallic parts shall be suitably earthed with the station earthing system as per the standard practices. The station earthing system shall be provided by the Designated E&M Contractor up to Escalator Controller and the Escalator Contractor shall make necessary arrangements to extend the earthing connections up to other escalator system. Interfacing and co-ordination with the Designated Contractor will be in the scope of Escalator Contractor.

5.25 Additional feature for Outdoor Escalators

Contractor shall note that the Stainless Steel escalators are assumed to be installed in fully outdoor environment. The contractor shall take necessary measures while designing, manufacturing and installing such escalators so that ingress of water or dust shall not deteriorate the performance and reliability of escalators and the finish/properties/strength of the escalators' exposed parts. The contractor shall also incorporate necessary additional safety devices for these escalators..



- 5.2.17 Except for those items where use of PVC unavoidable all items should be non-PVC type. All cable should essentially be fire retardant low smoke. In a nutshell, use of PVC should be minimized as far as possible.
- 5.2.18 If any intermittent obstacle such as intersecting floor slab, is less than 300 mm from the center line of the nearer handrail, an intersection guard fabricated by light weight material reviewed without objection by the "Engineer", shall be provided in accordance with EN115.
- 5.2.19 It shall be possible to reverse any escalator manually irrespective of the direction of travel. After being reverse, the escalator shall run smoothly in the desired direction without adjustment and under any passenger load conditions.
- 5.2.20 All similar parts, elements, sub-assemblies and assemblies shall be totally interchangeable between escalators of same type and duty.
- 5.2.21 All ball or roller bearings whether or not sealed for life time greasing shall have a working life of at least 110,000 operating hours under operating conditions as laid down in Clause 5.2.1.

5.3 Mechanical Requirements

- 5.3.1 Structural truss shall be of sufficient strength to carry the dead weight of the escalator which shall include any exterior claddings and decking extensions plus passenger load. Passenger loading shall be assumed as 5000 N/m² (load carrying areas = nominal width of escalator x distance between supports). The truss shall be designed to retain the steps and the running gear should the track system fails. The truss shall also be designed to support an additional load of the outer cladding panels and truss claddings up to a maximum load of 300 120N/m².
- 5.3.2 Truss shall be supported at both ends (top and bottom supports), no intermediate support shall be provided for rise upto 6500 mm and one intermediate support shall be provided for 6500 mm < Rise ≤ 9500mm in consultation with civil contractor with resilient supports and bearing plates. The provision of bearing plates and resilient supports shall be included in this Contract but shall be co-coordinated with the respective Civil Contractors. Resilient supports shall be designed for the purpose of preventing the transmission of noise and vibration othe station structure. The truss shall be designed to support the dead weight of the escalator plus the passenger load. Considering the passenger load, the maximum calculated deflection shall not exceed the limit/value prescribed by EN115 (Latest Edition).
- 5.3.3 The lower constant lengths from the edge of support to escalator working point will be assumed as 3500mm while the pit sizes will be assumed as 1700mm (W) x 1450mm (D) x 6000mm (L) {for the preparation of civil works. The upper constant length will be assumed as approx. 4000mm for all vertical rises up to 15m The Contractor shall coordinate with the Civil Contractor for all interfacing requirement. In the event that there are some civil constraints such that the "Engineer" may or may not required to revise the escalator shaft dimensions either as a whole or in part, the Contractor shall provide the escalator(s) with the truss so designed to suit the civil structure as directed by the "Engineer" at no cost to the Employer.
- The temperature of escalator top pit (i.e.driving station having motor and gearbox) shall be monitored and escalator shall be stopped if temperature rises beyond a pre- fixed value and an alarm mentioning "top pit temperature high" shall be displayed.
- 5.3.4 Track system shall be designed and fabricated to support and retain the steps, running gears and prevent step up-lifting continually or intermittently during operation of escalator, under all load conditions at design speeds. The design shall allow installation and removal of mechanical components without dismantling the structure. The track system shall be constructed of steel. The track surface shall be straight and smooth. All joints, where possible shall be diagonal across the width of the running surface. The maximum deflection of the track system shall not exceed 1.00



mm between any two adjacent track supports under 6000N/m². However minimum thickness of step roller track and chain roller track towards passenger side shall be minimum 5mm.

Radii of the upper and lower transitional tracks shall meet EN115 requirement to be equal to or greater than the following: -

- (a) Upper –1.3 meter
- (b) Lower - 1.0 meter

- 5.3.5 Non-slip, ribbed aluminum surfaced comb of ~~galvanized~~ with yellow – coloured diecast. The alternatives like coloured fiber, for the Comb plate is subject to the Employers acceptance at the design stage. Corrosion resisting aluminum alloy comb teeth shall be provided at both landings of each escalator. The comb plate structure shall withstand a load of 6000N/m² with a deflection not exceeding 2.0 mm. The teeth of the combs shall properly mesh with the cleats on the step treads and shall be designed to permit simple replacement in sections. The yellow colour light in the pits shall be provided to demarcate the moving and the non-moving parts of the escalators. The escalator Contractor shall make suitable provision in escalator panels for the UPS power connection from the station UPS for comb light, pit light, etc.
- 5.3.6 The comb sections shall be so designed such that when a foreign object is caught between the comb teeth and the step tread surface, the comb teeth shall either deflect, whilst remain matching with the grooves of the tread surface, or break. The load which may cause a comb tooth to break at its tip shall be not less than 700N nor more than 1900N. In the event that a foreign object caught between the comb teeth and the step tread surface cannot be removed as mentioned above, and is likely to cause damage to the steps, comb plate or its supporting structure, the comb plate safety switch as specified in Clause 5.8.10 shall be actuated and shall cause the escalator to halt.
- 5.3.7 Escalator landings shall be provided with easily openable, hinged landing plates suitable for access to the drive mechanism with some locking arrangement. There should be antitheft provision in the landing plates of SS balustrade escalators whose design should be reviewed at design stage. Landing floor plates shall have a non-slip etched stainless steel surface with preferably square checkered finish whose groove depth should be minimum 1mm. Top surface of landing floor plate must be able to withstand wear and tear during heavy usage of escalator for 15 years which will be effective from issuance of taking over certificate, construction details will be reviewed during detail design stage. Lifting handles shall be provided to facilitate opening of the landing plate. Means, such as hydraulic cylinders, shall be provided so that the force required to lift the floor plate is not more than 200N. The floor plate shall withstand a uniformly distribution load of 6000 N/m² over its entire area, the deflection shall not exceed 4mm during load application and there shall be no permanent deformation after the load is removed.
- 5.3.8 Escalators shall be provided with balustrade as specified in the Escalator Schedule in the form of tender. Balustrades shall consist of handrail decks, inner panels, outer cladding panels, skirts and lighting installation as given below:
- (a) Handrail decks profile : Minimum 1.5mm thick stainless steel and hairline finish (Grade 304). The balustrade decking should be covered by hairline finish stainless steel (grade 304) of minimum 1.5 mm thickness.
 - (b) Inner panels : For stainless steel panels, minimum 1.5 mm thick stainless steel, hairline finish (Grade 304), Required with reinforcement and sprayed-on fire resistant vibration/sound attenuating backing subject to the acceptance of the



- "Engineer" if not meeting the sound dBA as per clause 5.17.1
- (c) Outer cladding panels : Minimum 1.5mm thick stainless steel with hairline finish (Grade 304) in Visible as well as Non – visible section as per approval of "Engineer". Panels shall Require be with reinforcement and sprayed – on fire resistant vibration / sound attenuating backing material subject to the acceptance of the "Engineer". The cladding shall be provided on all three sides including bottom side. if not meeting the sound dBA as per clause 5.17.1 .
- (d) Skirt panels : Minimum 2.0 mm thick stainless steel, grade SS-304 hairline finish, with a material of low coefficient of friction such as Teflon or equivalent as reviewed without objection by the "Engineer" applied on the surface. Appropriate type lubrication dispenser shall be provided on both sides of maintenance step(s) for lubrication of moving steps and skirts.
- (e) Lighting : LED comb lighting. Power supply shall be supplied from the UPS, to be supplied by the E&M Contractor.

Measures other than frictional or gravitation methods shall be provided to prevent the inner panels from dislodging during normal operation. The fixing method shall be subject to the acceptance of the "Engineer".

- 5.3.9 (a) The distance between the inner decking immediately below the handrail shall not be less than 1150 ~~1100 mm (with tolerance of +0.4mm to -2mm)~~ as per EN 115.
- 5.3.9 (b) Horizontal clearances between skirt and the steps should be kept as per EN 115.
- 5.3.10 Where necessary, all outer sides of the balustrades and truss shall be provided with reinforced claddings. The gap between escalators and the sides of escalator and the adjoining walls/ parapet walls/ stairs shall be provided with decking extensions. The Contractor shall allow a gap of approximately 15mm between the decking and the adjacent walls/ parapet walls. The gap shall be filled up by the Escalator Contractor with flexible sealant subject to review without objection by the "Engineer". The claddings and decking extensions shall be fabricated from 1.5 mm thick stainless steel with hairline finish (SS 304). The inner surface shall be reinforced to prevent warping. It shall be sprayed with fire resistant vibration/sound attenuating backing material to the acceptance of the "Engineer". The claddings and decking extensions shall have tight butt joint and be fastened to the truss with concealed stainless steel bolts, nuts and washers. The joint line shall be perpendicular to the escalator step nose line without any longitudinal joints. All joint lines of interior decking, exterior decking/decking extension shall be aligned and staggered in arrangement in line with the joint line of interior panel. The design and the fixing details are subject to the acceptance by the "Engineer".
- 5.3.11 The balustrade shall withstand the loading without permanent deformation after removal of loading as specified in EN115.
- 5.3.12 Glass Balustrade shall meet the following requirement:-
- The glass balustrade shall be fabricated of tempered safety glass with minimum thickness 10mm (with manufacturing tolerance of +1mm to -0.2mm as per IS 2553, part-1) and sufficient mechanical strength and rigidity in accordance with EN115 as a minimum.
 - Glass and glazing shall gently comply with BS 952 Part 1, BS 5713, BS 6206 and BS6206 and BS 6262.
 - All glass shall be capable of easy replacement.



- 5.13.8 Control circuits shall be protected by fuses or equivalent means independent of the protection for the main circuits. All electronic components and relays shall be protected against starting and voltage surges by appropriate surge suppressers / surge arresters.
- 5.13.9 Control system shall not depend upon the completion or maintenance of an electrical circuit for the interruption of the power supply to the drive mechanism or brake.
- 5.13.10 All switches, relays, timers, and all auxiliary apparatus shall be of accepted design and labeled for identification.
- 5.13.11 The power and control wiring shall be laid out neatly and terminated with suitable cable termination sleeves. All terminals and cables shall be labeled and marked for identification. All power wiring shall be with the color coding for the phases i.e Red, Yellow, Blue; and Black for Neutral and Green for Earth. All live terminals from other sources shall be properly protected and identified with yellow warning signs.
- 5.13.12 The escalator controller shall be housed in a 1.5mm thick, IP 54 (ingress protection of panels shall be achieved through good quality polyurethane gasket suitable for continuous use from -30°C to 80°C) spray painted or galvanised sheet (with minimum 85 µm thick Galvanising) metal cabinet with hinged door, lockable with a dedicated key. Escalator controller shall be housed in an IP54 spray painted, 1.5mm thick sheet (with minimum 85µm thick metal cabinet with hinged door (IP55), lockable with a dedicated key. The operating buttons / switches etc. shall be provided in lockable enclosure to restrict access to authorized person only. The size of the controller cabinet shall be suitable for mounting into a wall closet of maximum dimensions 2000 mm (width) x 2000mm (height) x 500 mm (depth) with doors and shall be suitable to house the incoming power supply isolators and ITBs.
- The contractor will have to suitably design the layout after due interfacing with other designated contractors and with the approval of "Engineer".
- Generally the distance between Escalator and Escalator Control Panel (Controller Cabinet) shall not be more than 30 meters. However, depending on site conditions, it may vary and No additional payment on account of any variation in distance will be made to the contractor.
- 5.13.12 Escalators controller shall be fixed properly. Fixing Arrangement details to be submitted during design stage for approval of "Engineer".

5.13.13 The Controller equipment shall be designed as per design environment specified under clause 4.2.

5.14 Special Cable Requirements

All cables used except those within the enclosed controller shall comply with the following requirement: -

- 5.14.1 All control cables used shall be rated for minimum grade of 650 V and all power cables for minimum grade of 1000V
- 5.14.2 The conductor shall be of stranded conductor composed of plain annealed copper wire complying with IEC 228, Class 2.
- 5.14.3 The insulation shall consist of an extruded layer of cross-linked polyethylene complying with IEC 502.
- 5.14.4 All cables shall be manufactured from fire retardant, low smoke, materials.
- 5.14.5 Fire retardant, low smoke, materials shall meet the following requirements:-
- (a) London Transport Executive Three Meter Cube Smoke Emission Test, using optical measuring instruments. The maximum value of absorbance AO (ON), AO (OFF) shall be 0.8 & 1.2 respectively.



Table-1 Rise-wise escalator details

Height of Travel or Rise (In meters)	4 meter	5 meter	6 meter	7 meter	8 meter	9 meter	10 meter
Approx .Qty.	6	10	68	14	40	4	6

- (1) The rises of escalators may vary by + 0.5 m based on site conditions, however the Contractor shall not be entitled for any extra payment on account of this variation. The payment will be made as per the applicable Band range of vertical rise defined in BOQ.
- (2) The Balustrade of escalator shall be either of Inclined Box Type Stainless Steel or of Glass with Newel/rollers Wheels for both type of Balustrades.
- (3) 4 meters of travel height = $3.5 < \text{travel height} \leq 4.5$ m and so on.

4.16 Not used

4.17 Codes and Regulations

4.17.1 Local Codes, Regulations and Standards

Unless otherwise stated herein, the design, installation, testing and commissioning shall comply with the latest edition of all applicable standards issued by the Bureau of Indian Standards and other relevant local regulations applicable.

- IS – 4591: Code of Practice for Installation and Maintenance of Escalators.
- Additional requirements imposed by statutory or government authorities not listed above shall be complied with.

4.17.2 Additional Standards

Escalators (public service application) shall comply with the requirements of the heavy duty type for Mass Transit application in accordance with latest edition of British Standard BS EN 115, and European Standard EN115: Safety rules for the construction and installation of escalators.

The Contractor shall also comply with the requirements of the latest edition of NFPA – 130 (Fixed Guide way Transit Systems).

4.18 Abbreviations

The abbreviations used in this Specification are listed in Appendix - 'D'.

END OF CHAPTER



or not, shall be regarded as covered by other rates in the Statement of Prices.

1.11 Tender Pricing

- (a) Tenderers shall quote for the entire work on a "single responsibility" basis such that the total tender price covers all Contractor's obligations mentioned in or to be reasonably inferred from the Tender Documents in respect of the design, manufacture, including procurement and subcontracting (if any), delivery, construction, installation, completion of the whole of Works. This includes all requirements under the Contractor's responsibilities for testing and commissioning of the works including integrated testing and commissioning, the acquisition of all permits, approvals and licenses, etc.; the operation, maintenance and training services and such other items and services as are specified in the tender documents. Items against which no price is entered by the Tenderer will not be paid for by the Employer when executed and shall be deemed to be covered by the prices for other items. The Tenderer shall take regard of the actual site conditions and the items entered in the various Statements. The Tenderer shall price his tender accordingly and the unit prices entered against a line item shall be the full and only price paid for all work performed against that item except as described in the Tender Documents.
- (b) Tenderers are required to quote the price for the commercial, contractual and technical obligations outlined in the tender documents. If a Tenderer wishes to make deviations or wants to put conditions, qualifications, etc., such deviations, conditions, qualifications etc. shall be listed in a Statement No. 10 forming part of BOQ. The Tenderer shall also provide in this statement the additional price, if any, for the unconditional withdrawal of the deviations, qualifications, conditions etc. This additional price for the unconditional withdrawal has to be given separately for each deviation, qualification, condition, etc. Any deviation / qualification / condition that is not priced for unconditional withdrawal shall not be considered.
- (c) The price shall not be unbalanced. The price quoted under schedule statement - 1 (Design) shall not exceed 2% of the total quoted price. The combined cost of statement - 1, 2 & 3 should not exceed 75% of the total contract value. The cost of maintenance in statement-5 during Two years of DLP should not be less than 6% and should not be less than 3% for the third year in statement - 9. In event of non-compliance of above by the successful bidder, the employer shall readjust the cost of various schedules on pro-rata basis, keeping total cost same, which shall be binding on the bidder

The Tenderer shall price the Statements of Prices in Euro / GBP/INR/ US Dollar/Yen or any combination of these currencies only. Attention is drawn to Clause C16.1 of ITT.

2. CONTENTS OF THE STATEMENT OF PRICES

- 2.1 The Pricing Document for Base tender is divided into two schedules which are further subdivided into Statements of Prices as follows:

The statements below are for the purpose of tendering only. Actual distribution of quantities will be done during the execution stage based on the sections / station in the corridor. Indicative list of such distribution is given in clause A1.1 ITT

Statement No.1A	Design of Escalators Supplied from abroad
Statement No.1B	Manufacture and Supply of Escalators Supplied from abroad.
Statement No.2A	Design of Escalators supplied from within India
Statement No.2B	Manufacture and Supply of Escalators supplied from within India
Statement No.3	Port Handling, Port Clearance, Local Transportation, Insurance etc..
Statement No.4	Installation Services, Testing, Commissioning including Integrated Testing and Commissioning.

