

“Contract for Design, Manufacture, Supply, Installation, Testing And Commissioning of (A). Electrical and Mechanical (E&M) Including Hydraulics, Fire Safety Systems, UPS & DG Sets (B). Environmental Control System (ECS) and Building Management System (BMS) (C). Tunnel Ventilation System (TVS) and TVS - SCADA Works For Underground Stations, Intermediate Vent Shaft And Associated Tunnels Of East – West Corridor Of Ahmedabad Metro Rail Project – Phase I”

Clarification to Queries (Set-07, dated 20-07-2018) received subsequent to the Prebid Conference

IFB No: MEGA/UG/E&M-01 Dt: 18-04-2018

S.N.	Part	Section	Clause no.	Page no.	Tender Condition	Tenderer's query	Remarks
1	2	As per Executive Summary Report, SN 3 to Addendum - 1, Dated: 19-06-2018 Table-2 Summary of TVS configuration as per prefinal design report			As per Table 2: Summary configuration as per prefinal design report, it has been observed that there are 8 TVS fans in one station	We understand that 8# TVS fan are considered in one station to ensure degrade mode. However, that will impact other factors such as plant room size, panel etc. We propose to have 4# TVS fans in one station that will be able to handle most of the possible modes, as also almost all the Indian metro rail projects are with 4# TVS fans in one station. Kindly confirm.	Kindly refer to clarification of Pre-bid Query Set-5. Sl. No. -2
2	2	As per Executive Summary Report, SN 3 to Addendum - 1, Dated: 19-06-2018			As per Table-11 Assumption and input data on rolling stock. It has been observed that HRR Empty Car Auxiliary Systems is assumed on conservative side.	It's seems HRR Empty Car Auxiliary Systems value is too low compare to other metro projects. However, as this is rolling stock specific value, communicated by rolling stock manufacturer regarding heat release rate. Kindly confirm the value again, as the low value will have a major impact on equipment sizing.	Kindly refer to clarification of Pre-bid Query Set-5. Sl. No. -3
3	2	General			Boarding/ Alighting Data	Boarding/ alighting data is not given in SES & CFD report/addendum-1. Kindly confirm in case you have any PHPTDT DATA communicated or need to consider full load based on similar project.	Kindly refer to clarification of Pre-bid Query Set-5. Sl. No. -4
4	-	General			Normal Mode	It has been observed that during normal mode, TVS fan has been activated to reduce the tunnel load. However, as the outside (ambient) temperature is higher, so TVS fan may not be helpful. Hence, we propose to consider cool air dumping. Kindly confirm in case of any specific requirement.	Kindly refer to clarification of Pre-bid Query Set-5. Sl. No. -5
5	2	As per Executive Summary Report, SN 3 to Addendum - 1, Dated: 19-06-2018. Table-6 Assumptions and input data on temperature & humidity			As per Table6: Summer Dry Bulb - 41.2°C, ASHRAE 2017 Summer Wet Bulb - 22.9°C, ASHRAE 2017 As per Page no. 10 of 14, Executive Summary Report, SN 3 to Addendum - 1, Dated: 19-06-2018. In the following, the list of input data used for HVAC Thermal Calculation (HAP E20-II) and to define the main Equipment Sizing is given: Outdoor Design Conditions: City Name: Ahmedabad, Location: India, Latitude: 23,1 Deg., Longitude: -72,6 Deg., Elevation: 54,9 m, Summer Design Dry-Bulb: 42,2 °C, Summer Coincident Wet-Bulb: 23,3 °C,	Kindly Confirm that which ambient conditions to be considered for sizing of equipment's, ASHRAE 2017 or HAP input Data(Weather Data).	Refer data given in Executive Summary. Tender conditions prevails.

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6	2	As per query clarifications (set -1&2), dated 19-06.2018, point no. 63 & 58			<p>Sl. No. 63 of clarifications (set-1), page no. 9 of 11 Water cooled chiller capacity is derived in SES report considering all cooling loads. Air cooled chiller / VRV will be selected for critical rooms where air conditioned is required during non-revenue hours also. Tender condition prevails.</p> <p>Sl. No. 58 of clarifications (set-2), page no. 9 of 19 Air cooled chillers will be used for Critical rooms which require the AC for 24 hours. Water cooled chillers will be used during revenue hours. Tender condition prevails</p>	Kindly confirm that air-cooled chiller will be used for critical rooms or VRV system. There is cost impact due to copper piping in VRV system.	Water cooled chiller are envisaged during revenue hours and air cooled chiller during non revenue hours. Tender conditions prevails.
7	2	As per Executive Summary Report, SN 3 to Addendum - 1, Dated: 19-06-2018. Table-12,13&14, Chiller and AHUs sizes			Table 12, Page no. 10 of 14, Capacity of Chiller & Dimensions Table 13, Page no. 11 of 14, Airflow for each station	We understand that all other sizes like fresh air fans (As per DBR, clause no. 5.1.5), condenser pumps, chiller pumps to be calculated as per standard calculation.	This is part of Contractor's detailed design work, based on functional and performance requirements specified in Employer's Requirements. Tender Conditions prevails.
8	2	As per query clarifications (set -1), dated 19-06.2018, point no. 76			Chiller efficiency Kindly confirm the COP&IPLV required for water cooled screw chillers. Refer Design Basis Report (page no. 32). Tender condition prevails.	Air Cooled chiller COP & IPLV is given in Design Basis Report (Page No. 32). Kindly confirm the water-cooled COP and IPLV.	Refer Design Basis Report. Tender conditions prevails.
9	2	As per DBR, Clause no. 5.1.8, Internal Heat Gains			Equipment Load at Station Platforms and Concourse/Transfer – 50W & 100 W/M ²	Kindly confirm that equipment's load to be considered as per Area basis or as per actual number of equipment's like lift, escalators, AFC etc.	Data mentioned in thermal calculation report may be referred. However this is the part of contractor interfacing activity with designated contractors subject to Contractor's design Approval by Engineer.
10	2	DBR, Clause No-4.4.2.5, Exit Stairway Pressurization			The system will be sized to provide enough supply air to maintain a maximum pressure differential of 25 Pascal's with the doors closed and to generate an air velocity of 2m/s through the opened door located in the fire floor for fire fighters use.	The system will be sized to provide enough supply air to maintain a maximum pressure differential of 25 Pascal's with the doors closed and to generate an air velocity of 2m/s through the opened door located in the fire floor for fire fighters use.	No change, Tender conditons prevails.
11	2	DBR, Clause No-5.15, Ventilation			As per DBR “100% fresh air load is given for Platform Public Area”. While as per tender document “Particular Specifications, ECS Scope, Clause No 1.1, Page No- ECS Scope 2” “Station air conditioning systems shall be designed to maintain specific design temperatures and provide a minimum of 0.005 m3/s fresh air per person. 10% of the total circulation air shall be added from the outside fresh air at the AHU inlet to pressurize the station”.	Kindly confirm between DBR & tender which document to be followed.	Plantroom system based on space provisions, with full height PSD installed at platform will be basis of detail design by the Contractor, subject to its acceptance by the Engineer. Tender conditions prevails.
12	-	Addendum - 2	ITB 24.1	BDS - 14	The deadline for Bid Submission : Date : 07-08-18 Time : 15:00 hrs	We request you to extend the deadline for Bid Submission : Date : 07-09-18 Time : 15:00 hrs	Please refer to Addendum 2 issued dated 04-07-2018 for Bid submission extension.