



Tender Ref No: JTC22T0033

1 July 2022

To: All Applicants

CORRIGENDUM NO. 3

JTC INNOVATION CHALLENGE 2022

Challenge Statement 3: Real time automated optimisation of air-conditioning system

Please take note of the following clarifications to the above Innovation Challenge in response to queries raised by applicants, which shall form part of the original Innovation Challenge document issued.

S/N	Query	Response
Challenge statement: Real time automated optimisation of air-conditioning system		
1	Can we request for overall system diagram consisting of Chiller, AHU, Pumps, Fan, regulation valves/dampers etc.	The airside schematic diagram and ACMV layout plans will be provided to successful applicant, if requested.
2	Can we request for the air build BMS system graphic and shop drawings for the test area, like Chiller plant, AHUs, VAVs?	Please see Annex A for chilled water system schematic.

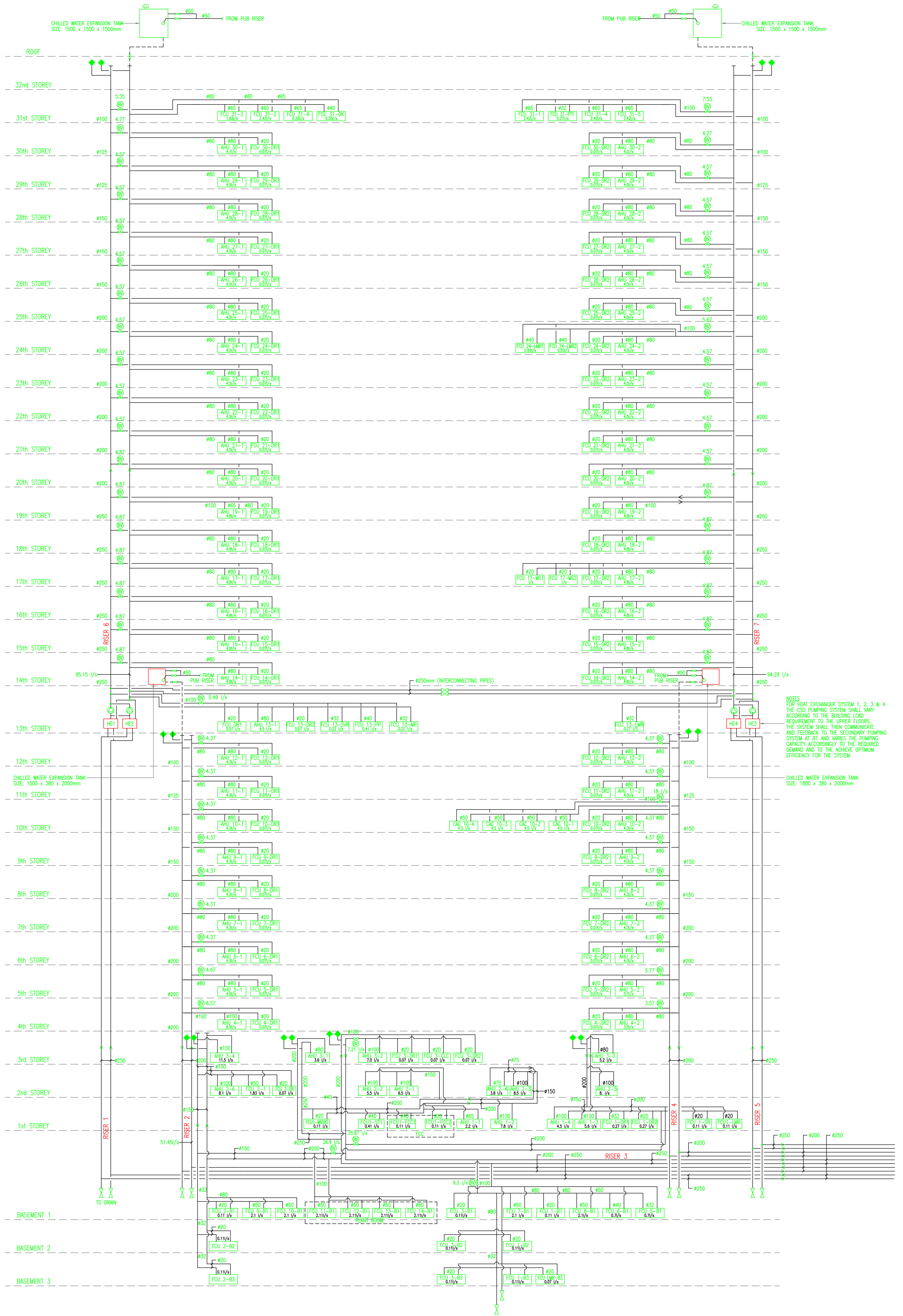
S/N	Query	Response
3	For cloud-based solutions, does it need to be on GCC (government commercial cloud)?	We prefer for the solution to be hosted on GCC in Singapore. For solutions hosted elsewhere, we will evaluate on case-by-case basis.
4	Ours is a cloud-based solution, but the cloud is not based in Singapore but based in EU and US. Will this be qualified?	
5	For the solutions, can we use JTC WIFI or do we need to supply?	We prefer solutions that DO NOT connect to existing WIFI network. For solutions that need to connect to existing WIFI network, we will evaluate on case-by-case basis.
6	Is there any WIFI network in your BMS control room & AHU/FCU area? Our solution can provide real-time fault alert remotely which most BMS solutions do not provide.	
7	What is the typical maintenance/inspection regime for the chiller water system and AHU/FCU i.e. coil washing, filter cleaning, UV lamp replacement?	The information will be provided to successful applicant, if requested.
8	Can we request for the relevant floor layout with room dimension?	The floor layout and dimension will be provided to successful applicant, if requested.
9	Can we request for test area floor plan?	The estimated floor area (air-conditioned space) for the proposed test areas is: L1: approx. 2500 m ² L2: approx. 2500 m ² L4: approx. 1400 m ² L9: approx. 1400 m ² L10: approx. 1400 m ² The successful applicant is expected to verify the exact floor area when onboard.
10	What are the square footage of the respective four areas under this challenge?	
11	We would like to request one more site visit.	More site surveys and surveys to other areas will be organised for successful applicant, if requested.

S/N	Query	Response
12	Can we request for the site survey for the AHU served areas, like Data center, Badminton hall, auditorium etc?	
13	Can we request for Building or chiller plant Operating System Efficiency (OSE) report?	The OSE report will be provided to successful applicant, if requested.
14	How do we estimate the integration cost with existing vendor?	The applicants shall estimate the integration cost based on integrating the solution in a typical centralised chilled water system and air-conditioned buildings with existing BMS or cloud-based solution.
15	Can you advise on the existing BMS communication protocols i.e. BACnet, Modbus, OPC UA, etc.?	The existing BMS communication protocols is BACnet. We are open to communication protocols such as API, AMQP or MQTT, for monitoring and control purposes.
16	Can we request for the current BMS control strategy for chillers and AHU, manual, Auto or Semi-auto?	The information will be provided to successful applicant, if requested.
17	Can we request for the current BMS vendor contact person email and number?	The information will be provided to successful applicant, if requested.

Yours faithfully,

Ivy Sim
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Contracts and Procurement Division
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(This is an electronic document. No signature is required)



NOTES
 FOR HEAT EXCHANGER SYSTEM 1, 2, 3 & 4
 THE CSD PUMPING SYSTEM SHALL VARY
 ACCORDING TO THE BUILDING LOAD
 REQUIREMENT TO THE UPPER FLOORS.
 THE SYSTEM SHALL THEN COMMUNICATE
 AND FEEDBACK TO THE SECONDARY PUMPING
 SYSTEM AT B1 AND VARIES THE PUMPING
 CAPACITY ACCORDING TO THE REQUIRED
 DEMAND AND TO ACHIEVE OPTIMUM
 EFFICIENCY FOR THE SYSTEM

CHILLER PLANTROOM LOCATED AT BASEMENT 1