

Island Aviation Services Limited

Supply, installation and Commissioning of Centralized VRF Air-Conditioning System for 3 Storey Engineering Building in Velana International Airport

Terms of Reference

February 2024

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1. Background

1.1 Island Aviation Services Limited (IASL) is an incorporated limited liability company operating under the registration number **C-0830/2007** and having its registered office in **M.Dar-Al-Eiman Building, Majeedhee Magu, K.Male', Maldives**. IASL is the National Airline of the Republic of Maldives and is wholly owned by the Government of Maldives. In addition to Air Transport Services, IASL offers various other aviation related services such as Air Cargo, Airport Management, Aircraft Engineering, and Ground Handling Services.

1.2 IASL has contracted out the works for the design and construction of a 3-storey engineering building in Velana International Airport.

The building's primary function will be for storage and office space. The structure has a built-up area of approximately 4500 sq. ft. and comprises of a concrete frame and slabs. The walls will be constructed from cement masonry blocks and partitions on second floor will be comprised of aluminum/glass. All partitions will be to the full floor height. Areas where ceiling is to be provided will have a clearance of 100mm below the beam for AC conduit pipes. Works for concrete elements of the second floor are currently underway and the building is expected to be completed in early 2024.

1.3 IASL is seeking authorized companies to carry out the supply, installation and commissioning of Variable Refrigerant Flow air conditioning systems for the new building.

2. General requirements

- 2.1. The Bidder shall provide personnel, material, equipment, and supervision to complete the technical requirements in this scope of work.
- 2.2. The Bidder shall to follow all security and safety directives.
- 2.3. All materials shall be delivered to the site by the contractor. (Escort fee to be paid by the contractor).
- 2.4. The Bidder shall always clear the work site upon completion of work, put away excess material and maintain cleanliness on site.
- 2.5. Aviation security airport passes for vehicles and labors must be arranged by the contractor. IASL will assist as required.
- 2.6. Bidder shall visit the site to review site conditions, and satisfy himself as to the requirements of the bid.

3. Scope of works

- 3.1. Supply, installation, testing and commissioning of VRF/VRV Cassette type AC system as per the provided layout in Appendix A.
- 3.2. Bidders may propose alternative arrangements for the units if it optimizes cost/design, provided that they meet the project requirements.
- 3.2. Air curtains shall be provided at the locations indicated. Bidder may adjust the sizes of the air-curtain units as long as it meets requirements.
- 3.2. VRF/VRV system to be quoted per floor separately.
- 3.3. Insulation should be a minimum of 1 in. thickness and shall be of Superlon brand or equivalent.

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- 3.4. Pipeline and drain pipe (outside the building) shall be laid in PVC casing.
- 3.5. All internal piping shall be neatly laid out on suspended trays.
- 3.6. Bidder shall install electrical wiring, sockets/waterproof isolator for each unit which requires power (indoor/outdoor)
- 3.7. Outdoor units shall be installed on an appropriately reinforced concrete slab and elevated 100mm from ground level at the location indicated.
- 3.8. Warranty should be provided for a minimum of 2 years.
- 3.9. Spare parts for the units should be kept on hand for a minimum of 3 years.
- 3.10. Length of piping shall be determined by the Bidder after reviewing the layout drawings provided. Bidder may propose alternative layouts with due reasoning.
- 3.11. Piping outside of the building shall be concealed in casing/ductwork.
- 3.12. Piping sizes and configuration shall be made to manufacturer's specifications.
- 3.13. All units shall have the option of being controlled individually.
- 3.14. Wired controls shall be provided to all common areas and rooms individually.
- 3.15. 3 remote controls shall be provided for each floor.
- 3.16. Control systems shall display temperature and humidity.
- 3.17. Outdoor units shall be corrosion-resistant or treated to make it so.
- 3.18. Bidder shall account for all ceiling and electrical works required to commission the system. A ceiling layout for the floors has been provided in the Annex.
- 3.19. Temperature shall be controllable at 22 Deg C +/- 10%
- 3.20. Noise level of air curtains must be less than 55dB
- 3.21. AC units shall be Hitachi/Gree or equivalent.



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Annex 1: AC layout drawings