

CONSTRUCTION AND DEVELOPMENT OF ALL CIVIL WORKS RELEVANT TO AN AVIATION FUEL STORAGE DEPOT AT N. MAAFARU INTERNATIONAL AIRPORT

		ĺ	Date	15:00Hrs
Bid Announcen	nent Ref	IAS/MIS/2022-121	Information Session Date and Place	 30th January 2022, at 11:30Hrs M.Dar-Al-Eiman Building, Majeedhee Magu, K.Male', Maldives
Bid Submission				
Stage - 1 Bid Su	bmission: <u>S</u>	ubmission of Technical D	Documents.	
•		•	petween 08:00 hrs to 15:00 rs, Dar Al Ei-Man Building, N	

• Date and Time: 15th February 2022 at 11:30 Hrs

Venue: Island Aviation Headquarters, Dar Al Ei-Man Building, Majeedhee Magu, Male'

Bid Submission Address M.Dar-Al-Eiman Building,	
	Majeedhee Magu,
	K.Male', Maldives

Island Aviation Services Ltd. is seeking bids for the items specified in this document. Interested bidders are invited to submit their proposals for the supply of the items as instructed in this document. Please ensure that all submissions comply with the instructions. Failure to comply with the instructions may result in disqualification of the bid.



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1. Invitation to Bid

SUMMARY

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.

IASL is looking for a suitable party to Construction & development of all works relevant, to an Aviation Fuel Storage depot at Maafaru International Airport.

Island Aviation Services invites sealed bids valid for <u>120</u> days from the date of opening the bids from Maldivian companies, for procuring requirement as detailed in this document. All bidders are advised to study the Bid Document carefully.

2. Information for Bidders

2.1. Goods / Services Required

IASL is seeking interested parties to submit their Bid for the Construction & development of all civil works relevant, to an Aviation Fuel Storage depot at Maafaru International Airport.

2.2. Eligible Bidders

2.2.1. The Bidders must submit relevant documents as per below details.

- a) The bidder should be a company registered in Maldives, registered under the Companies Act (Law No.10/96) / a partnership registered under the Partnerships Act (Law No. 13/2011) of the Maldives for the last 3 years from of this RFP. The bidder must have its own operational office in Maldives and registered with Maldives Inland Revenue Authority (MIRA) and submit below documents:
 - i. Company Registration Certificate
 - ii. GST Registration Certificate
 - iii. Audited Financials of (2018, 2019 and 2020)

2.2.2. Compliance Statement

Proponents shall state that the offer is made in accordance with the Request for Proposal. Proponents who offer additional or alternative conditions shall clearly state those in their proposals.

2.2.3. Evaluation of proposals

The Proposal will be evaluated by Bid Evaluation Committee. Points will be given to proposals according to the evaluation criteria in Section 2.5. All the proposals will be ranked in descending order based upon total score and the party who score highest points will be awarded the contract.



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2.2.4. Language of Proposal

The proposal documents must be in written in English (UK).

2.2.5. Clarifications about RFP

Prospective Bidder requiring any clarification on the Bidding documents may notify Island Aviation Services Ltd (IASL) in writing to the mentioned below addresses, before 7th February 2022, 11:00Hrs.

Email: moohath.mohamed@iasl.aero; procurement.admin@iasl.aero;

Copied to: mohamed.ziyau@iasl.aero

IASL will not be responding to any clarifications forwarded after the mentioned date and time. All questions and responses will be copied to all parties. (Bidder will not be identified).

2.2.6. Communications

Except as provided in the preceding section relating to questions about this RFP, Proponents shall not contact any officers, employees, or team members of Client with respect to this RFP. Any oral communication with a Client employee concerning this RFP is not binding on Client and shall in no way alter a specification, term or condition of this RFP or any contract documents. We look forward to your innovative proposals to help assist us in developing a 3 Story building in Hulhule.

2.3. Guideline for BID Submission:

Bidders are required to attend the information session as per below details.

Date of Information Session	30 th January 2022, 11:30Hrs (Local Time)
Venue For Information Session	Island Aviation Services Ltd (Head Office), M.Dar-Al-Eiman Building, Majeedhee Magu, K.Male', Maldives.

Kindly note that attendance for the information session is **mandatory** and Bids will not be accepted of any party that does not attend the mentioned session on time.



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2.4. Bid Submission

Bids must be submitted in two stages as per below instructions. The purpose of two stage submission is to ensure all the technical documents are submitted with duly completed. After the stage one submission, evaluation committee will go through the technical documents of all the bidders and if there maybe any issues or missing documents by any bidders, IASL will inform the concerned bidder and will be given the opportunity to resubmit the correct documents during the stage two submission. This would allow equal opportunity for all the bidders to re-submit valid technical documents and avoid being disqualified.

- 1. Bids must be submitted in two Stages as per below.
 - Stage -1: Submission of technical documents
 - i. Company Profile
 - ii. Cover Letter
 - iii. Company Registration Certificate
 - iv. GST Registration Certificate
 - v. Related Party Disclosure (Form B)
 - vi. Audited Financial Statements (2018, 2019 and 2021)
 - vii. Past Experience Letters

Technical documents should be submitted on 8th February 2022, between 0800 to 1500rs to Island Aviation Headquarters, Dar Al Ei-man Building, Majeedhee Magu, Male' Maldives.

• Stage -2: Submission of Financials.

- viii. Bid Form (A)
- ix. Cost Breakdown (Detail Bill of Quantities)
- x. Proposal (Cost and Payment Terms)
- xi. Implementation Plan/ Work Schedule

Below is the date, time, and venue for the stage two bid submission. The submission of financials will be held in the presence of all the bidders.

Venue for Bid Submission	Island Aviation Services Ltd (Head Office), M.Dar-Al-Eiman Building, Majeedhee Magu, K.Male', Maldives.
Date and Time	15 th February 2022, 11:30Hrs (Local Time) No party will be allowed after the mentioned time.

a) The Bid Proposal must be submitted in English language. All required information must be provided, responding clearly and concisely to all the points set out. Any proposal which does not fully and comprehensively address this Request for Proposal may be rejected.



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The Bid Proposal Document must comprise of the following:

Cover Letter	The cover letter for the proposal must be signed by an authorized person who has the authority to bind the Proposal to a Contract;	
Company Profile	Profile of the Firm including the firm's shareholding structure and details;	
Project Cost and Payment Terms	 The Project Cost and Payment Terms and arrangements quoted in Maldivian Rufiyaa (MVR) inclusive of all taxes. Proposal must remain valid for a period of 120 days after the date of Proposal Submission. 	
Financial Capacity and Relevant Experience	 Provide audited financial statements of 2018, 2019 and 2020 to indicate financial strength of the company to execute a project of this nature. List of experience in similar projects with letters of completion. If past experiences are not accompanied with an official letter of completion by the client, marks will not be awarded to that section. 	
Building Specification, Implementation Plan, Quality Plan	 A detail Building specification, Implementation and a Quality Plan must be provided. 	
Cost Break Down	Must provide a detail cost break down project	
Bid Form (Form A)	Bid Application Form, signed by with duly authorized personnel	
Related Party Disclosure (Form B)	The form serves to justify that the bidder has or does not have any relationship in terms of employment or close family relationship. Close family relationship here refers to spouse, including former spouse relatives, which comprise: siblings; cousins; uncles and aunts; nephews and nieces; lineal ancestors (presumably, it means parents, grandparents and other ancestors of direct lineage) lineal descendants (children, grandchildren and other direct descendants).	

- b) Island Aviation Services Ltd reserves the right to reject a Proposal in the following circumstances:
 - i. If less than two total bids have been received, the IASL reserves the right to continue or reject the evaluation or request for a resubmission.
 - ii. If any of the required documents mentioned in section **2.4. a).** is not submitted by a party, IASL has the right to reject the BID or request for a resubmission.
- c) Proposals shall be evaluated in accordance with the Party's demonstrated capacity and experience and expertise. The awarding criteria and weightage will be annexed to this document.
- **d)** Parties shall bear all costs associated with the preparation and submission of the Application and Island Aviation will not in any case be responsible and liable for the costs incurred.
- e) All information given in writing to or verbally shared with the Party's in connection with this Request for Proposal is to be treated as strictly confidential. The Party's shall not share or invoke such information to any third party without the prior written approval of IASL. This obligation shall continue after the procurement process has been completed whether the Party is successful.
- **f)** All materials submitted in Response to the Request for Proposal shall become the property of IASL. Proposals and supporting materials will not be returned to the Party.
- **g)** All information provided will be subjected to verification by IASL. Submission of incomplete or unsigned forms may result in rejection of the bid as non-responsive.



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- h) IASL will only accept one bid document from every bidder.
- i) To assist in the evaluation and comparison of bids, IASL may, at its discretion, request any bidder for clarification of its bid. This will be clarified in writing, but no change in substance or price of the bid will be sought.
- j) IASL will evaluate and compare only those bids determined to be responsive in accordance with requirements specified in the bidding document.
- **k)** IASL will award the contract in writing to the bidder who scores the highest marks in compliance with the criteria decided by the Bid Evaluation Committee.
- I) Upon furnishing by the successful bidder, IASL will promptly notify the other bidders through telephone or email that their bids have been unsuccessful.

2.5. Evaluation Criteria

IASL intends to apply the following criteria for the selection of bids. The Bid will be evaluated by the Bid Evaluation Committee of IASL. Points will be given to proposals according to the evaluation criteria below.

Price Offered	60%
Relevant Past Experience	20%
Delivery	10%
Strength/Reliability	10%

Note:

- 1. Letters from clients stating the successful execution of similar projects or evidence of similar projects is required to attain marks for the "Past Experience" category.
- 2. Marks will be awarded under criteria for Strength/Reliability considering the submitted Audited financials for the latest three years.
- 3. The Contractor must provide a one-year warranty for the project.
- 4. A 5% from the total value of the project will be withheld by the client as Performance Retention for a period of 5 months from the date of completion.



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3. SCOPE OF WORK

MECHANICAL / STRUCTURAL - SCOPE OF WORKS

1. INTRODUCTION

The document covers all required works relevant to the Construction & development of all works relevant, to an Aviation Fuel Storage depot at Maafaru International Airport, the construction model of the depot consist of installation of equipment's/ components supplied by various parties for fully functioning of the integrated Facility.

2. Construction Disciplines

The contractor shall exercise full responsibility for towards Safety, Security and Care of the Facility.

- a) Access to Site
 - Construction activities of entire facility will be undertaken in Airside of the Airport, access to the site will provided to valid Locals with Valid NID and Foreign Workers with Valid Work Permits.
 - Access to work site for all personnel, material and goods plant etc. will be via the routes set out and controlled by AVSEC.
- b) Safety, Security & Site Management
 - Site Containment and site boundary construction fence to be erected throughout construction period, access to construction site to be controlled and manned. Such fence must ensure that no loose debris to go outside the contraction area, specially to airside of the Airport.
 - Proper safety gears and Proper PPE shall be used by the contractor and his personnel, failure to do so, such personnel will be removed from site. Sign Board to be installed on Project details, Sign Boards relevant Safety & PPE awareness and information boards.
- c) Handling
 - Proper handling equipment and lifting equipment's shall be used for lifting and handling of materials, care must be exercised during all handling process to avoid any damage during handling & lifting.
- d) Cleanup & Quality Control
 - Cleanup of site including tress less than 0.5m girth complete with stumps and roots. Full Cleanup of site upon completion of the works and removal of all equipment's and construction materials.
 - Work site always must remain properly and tidy from loose ang debris to be blown out, contractor must ensure that proper quality control of workman ship in enforced and monitored during the contraction.
- e) Progress Reports / Test Reports
 - Works shall be done, in accordance to the construction method submitted and all relevant Inspection and evaluation check sheets.
 - Weekly project construction reports shall be submitted to Client with proper photographs.
- f) Utilities
 - The necessary utilities for the construction will be provided from the nearest location of existing for Water & Electricity.
 - Contractor responsibility to arrange necessary arrange to route these requirements to the worksite.
- g) General
 - 1- The contractor shall carry out the works using own manpower, materials and equipment unless stated. And as applicable, the logistics of manpower, tools and equipment shall be arranged by Contractor.
 - 2- Client will provide a temporary storage area free of cost to Contactor's materials near the construction site. No accommodation will be provided, only material storage is allowed near/on worksite.
 - 3- The working language, all correspondence and reports shall be in English Language.
 - 4- Contractor shall ensure that any operation of the airport or existing facility are not obstructed or hindered due to the works during the entire construction period.



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5- The contractor shall have qualified and competent experts & key personnel to provide the works effective and efficiently.

The contractor sat all times shall have an expert project manager or team leader who:

- Will supervise the works of all members of the team and be responsible for the Works being provided.
- Produce and submit regular reports of the progress of the works to Client as when required.
- coordinate and consult with Client as appropriate for ensuring that all inputs/information essentially needed is utilized.
- 6- Contactor shall comply with all applicable laws, rules and regulations for provision of the works.
- 7- The contractor shall exercise good workmanship and all the works shall be completed to the satisfaction of Client / Engineer.
- 8- Where parts of works are subcontracted/delegated/assigned to other parties, the contactor shall be fully responsible for the works carried out by them.

3. EQUIPMENTS & COMPONENTS

The bellow listed equipment's and components will be provided by the Client to be installed by the contactor, all necessary installation drawing will be provided with the equipment's.

- a) Horizontal Storage Tanks
- b) Pumping and Quality Control Skid
- c) Office Container

#	Qty	Description	Approx. Weight	Approx. Size
а	08	Horizontal Tanks	8T	9200 x 2900
b	01	Pump Skid	9T	3500 x 6000
С	01	Office Container	3T	12200 x 2600

4. LIST OF WORKS

The following list of works are to be undertaken by the contractor and all required materials for the construction shall be provided by the contractor.

- 4.1 Mechanical Works
- 4.2 Structural works
- 4.3 Fire Fighting Works
- 4.4 Electrical Works
- 4.5 Plumbing Works
- 4.6 Drainage Works
- 4.7 Automation Works
- 4.8 CCTV Works

5. Mechanical Works

Mechanical Works listed

- a) Mechanical equipment's, systems & components installation shall be undertaken after approvals of proper method statement of the works for each component on the system, works shall never be undertaken without approval from the Client/Engineer.
 - Proper documentation and approval of Client/Engineer of all mechanical works will be required for the Testing, Commissioning and Approval of the Facility.
- b) Installation of the equipment's supplied by the Client; installation shall be in accordance the structural drawing and manufacturer drawings.



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- c) Supply of all materials, equipment and components required for completion of the Deport Tanks Farm in accordance with the scope of works and relevant drawing, excluding the equipment's supplied by the Client.
- d) Construction, Installation and Pressure Testing of Stainless-Steel Piping works on the following systems as the issued P&ID drawing.
 - Fuel delivery pipeline from Storage Tanks to Pumping module Inlet.
 - Fuel delivery pipeline from Pumping Skid to Refueller loading rig.
 - Sampling pipeline from Storage Tanks to Pumping Module Inlet.
 - Fuel Receipt pipeline from Delivery Trucks to Storage Tanks.
 - Refueller Test Rig interconnected to Receipt Pipeline.
 - Installation of all the valves and pipe sleeper and other necessary equipment to complete the system
- e) Test Rig shall be fully compliant to JIG typical arrangement of the Test Rig, supporting general layout for the test rig provided, detailed layout o be produced by the Contactor.
 Test Rig should include necessary support structures to hold the Rig in position.
- f) Valves and other components within the system installation in the piping network, shall be undertaken by the contactor, such installation shall be done upon approval of proper method statements.
- g) Piping works includes all required pipe supports and valves supports, to be fabricated and install as per the layout of the Piping works.
- h) Pressure Testing All the Pipeline and Welding shall undergo hydraulic pressure testing for 12bar in accordance to pressure test method submitted by the Contractor.
- i) Fire Fighting
 Installation of the Fire Fighting skid and laying of all the pipeline for Foam drenching system in accordance the detailed design of the Fire Fighting.
- j) Construction of the Piping works shall be undertaken in accordance to detailed isometric drawing / shop drawing produced by the Contractor using the provided P&ID.
- k) Materials Grade and Specification for Fuel Process Pipeline defined in the Annex-1

6. Structural Works

Construction of all relevant structural works in accordance to the scope and drawings provided

- a) Tanks Foundation
 - Layout drawing for Tank Foundation provided, contractor required to submit detail reinforcement / shop drawings prior to laying of the foundations.
 - Final adjustment shall be incorporated on the mounting / anchoring bolts at a later stage.
- b) Fire Dike
 - Layout drawing for Fire Dike provided, contractor required to submit detail reinforcement drawings prior to laying of the foundations. Special consideration shall be given proper expansion joints to avoid any hairline cracks on the Fire Dike.
- c) Liquid tight Paving of Dike Area
 - Layout drawing for pavement to be provided, contractor required to submit detail reinforcement drawings prior to laying of the foundations. Special consideration shall be given proper expansion joints to avoid any hairline cracks on the pavement and necessary sloping.
- d) Pump Shed Foundation (Detail drawing to be supplemented later)



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General layout provided, detailed layout to be developed with final measurement at later stage for the mounting / anchoring bolts for the Skid Installation.

e) Pump Shed Dike and pavement

Layout drawing for Pump Shed Dike provided, contractor required to submit detail reinforcement drawings prior to laying of the foundations. Special consideration shall be given proper expansion joints to avoid any hairline cracks on the Dike and vibration on the equipment's installed.

f) Fire Fighting Equipment Foundation

General layout provided, contactor to develop the system as defined in Fire.

g) Office Foundation

Layout drawing for Office Foundation provided, contractor required to submit detail reinforcement drawings prior to laying of the foundations. Special consideration shall be given proper services required for the office.

h) Depot Paving

Layout drawing for pavement to be provided, contractor required to submit detail reinforcement drawings prior to laying of the foundations. Special consideration shall be given proper expansion joints to avoid any hairline cracks on the pavement and necessary sloping.

Depot paving includes additional paving area related to the gates and refueller turning pad outside the depot. All the refueller maneuvering area shall be load bearing pavement for 40T refueller to drive and park on the depot.

i) Fencing Works

General layout provided, detailed layout to be developed by the contactor, the required all modification for interconnection of the existing facility fence to be done by the contactor; connection details drawings to be produced.

i) Gates

General layout provided, detailed layout drawing to be developed by the contactor.

k) Cable Ducting and Cable Sleeving for Power and Signal Cable

General layout provided, conduits to be laid by the contactor and necessary pull rope / cable to be provided inside the ducts system for cabling works.

I) Tank Walkways / Staircase

Tank Walkways and staircases provided by the client to be erected and installed during the erection and Installation of the Tanks.

m) Fire Dike Crossovers

Fire dike crossovers as provide in the layout shall be constructed and installed all the cross overs shall be antislippery grated with safety handrailing and shoe plate fitted.

Detailed shop drawing shall be produced by the contactor.



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7. Fire Fighting System

Supply of Packaged Fire Fighting System, Fire Alarm System as per the design, Construction and installation of water sparkler system for the horizontal tanks, and hydrant ring with hydrant monitors around the tank farm, testing of the Fire Fighting System. Fire Fighting system includes all mechanical installation works, structural installation works, necessary piping and nozzles installations.

Manual Call Point system to be integrated to Fire Pump System for primary activation leading for energizing the motorized butterfly valve activation on the header of the Sprinklers; all the Independent Tank Sprinklers manual butterfly valve will remain OPEN during the Tank Farm Operation, Fire Fighters will manually close necessary sprinklers based on the Fire Fighting.

Fire Fighting Pumping System

Automated Fire Fighting Pumping System will be installed for activation of Cooling System installed within the Tanks.

Fire Fighting System consists of the following a prefabricated and tested pumping unit.

- a) Fire Duty Pump Electric 2240LPM
- b) Fire Standby Pump Engine Driven- 2240LPM
- c) Multistage Pump set (Jockey Pumps)
- d) Pressure Circuit 6bar
- e) Motorized Butterfly Vales x 2
- f) Compliance: NFPA 20 / UL 448 / UL 1247 / FM 1311 / FM 1333

Pump skid to be supplied inclusive of Weatherproof enclosed cabinet / housing suitable for Fire Pump operation fitted with roller shutter doors.

Pump system to be NF-S-125-80 of NAFFCO or Equivalent.

Fire Fighting scope covers

- a) Supply, Installation and Testing of Fire Fighting Pump System
- b) Supply, Installation and Testing of Fire Alarm System
- c) Installation Fire Fighting Sprinkler System on the Storage Tanks with necessary pipeline with pipe supports.
- d) Installation of Hydrant Monitors with necessary pipeline and pipe supports.

8. Drainage / Plumbing

Construction of the drainage system of the depot, for collection of Oily Water / Strom Water, drainage system design includes of catchpits, Oily Water Interceptor, Internal drainage piping works and Connection to Outlet flow to Airport main drains including and modification required for connection to the main drains, general layout for drainage issued, detailed drawing of the drainage and vertical sloping drawings to be produced by the Contractor.

a) Catch Pits

All catch pits shall bear design load of vehicle maneuvering on top, the catch pits to be provided with top grating cover for drainage.

b) Interceptor

Underground oily water collector ad separator pit to be constructed, schematic layout for the catch pit provided, contactor to produce detailed design for the Oil / Water interceptor.

c) Outflow

Outflow of the interceptor to be connected to airport main drainage on airside, all modification works towards connection shall be contactor responsibility.

9. Electrical

Design & supply of electrical panel board in compliance to local regulations. The panel to be designed to individually controller's feed to the following system and with spare 2 feeder for future use of the Depot.



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a) Main Electrical Panel

Main Electrical panel to power all the equipment's required for the Fuel Depot; the panel shall meet the local regulations; required outdoor power cable shall be of the rating specified and cable schedule.

Cable Type	Cable No	Cores / Pairs	CSA (mm²)	Cable Type	Sheath Colour	Cable Supply	Cable Length	Equipemnt (from)	Gland (from)	Equipment (To)	Gland (to)
P	001	4C	32	XLPE/PVC/SWA/PVC (BS 5467)	Black	Contractor	19	Pumping Module Distributor	Ex d	Main Power Panel	Industrial
Р	002	4C	16	XLPE/PVC/SWA/PVC (BS 5467)	Black	Contractor	12	Fire Fightimg Module	Ex d	Main Power Panel	Industrial
Р	003	3C	6	XLPE/PVC/SWA/PVC (BS 5467)	Black	Contractor	150	Area Light Masts	Industrial	Main Power Panel	Industrial
Р	004	3C	6	XLPE/PVC/SWA/PVC (BS 5467)	Black	Contractor	5	Office Distribution Panel	Industrial	Main Power Panel	Industrial

b) Power Loads to Main Skids

- Pumping Module Load 30kW
- Fire Fighting Module Load 22kW
- Other Equipment's 10kW

c) Area Lighting

Supply and Installation of Area Lighting system including the Area light Mast and Lights, the mast shall be pre casted Hot Dip Galvanized, mast shall be fitted with climbing fittings.

04 units of Area Light mast of 8m to be supplied and installed as per the design each mast mounted with 2 nos x 400W Led Lights, color temperature 3000K

Each Mast shall be fitted with Outdoor Waterproof Termination Box with MCB to power each mast; all cabling works shall completed by contactor.

Lighting control on the panel shall be individually controlled circuits, lighting control shall be compensated with primary timer control system with secondary photocell.

d) Office Container

Contactor shall provide cabling from Office DB to Main Panel.

e) Cable Laying / Termination

All required cable to be laid by the contractor and termination shall be done by the Contactor, all necessary termination glands supporting Steel cable trays shall be provided by the Contractor.

f) Earthing System

Supplying and Installation of Earthing System for all the Equipment's and Components; general layout of the earthing system provided.

10. Automation

a) Pump Skid

Cabling works for pump skid signal transfer to Control room and termination of these cables as per the detailed design of the pump skid.

b) Fire Fighting Skid

Cabling works for Fire Fighting skid signal transfer to Control room and termination of these cables as per the detailed design of the Fire Fighting skid.

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11. Maafaru Fuel Farm CCTV & Parameter CCTV

Supply and Installation of CCTV System for monitoring of the Tank Farm & Landside/Airside Parameter Fence monitoring.

The Fiber Optic Network based Video Surveillance system consists of fixed cameras, servers, workstations, ethernet switches etc. All the cameras shall be of IP based and thus can directly connect to the network.

Tank Farm

a) Outdoor Camera system of 04 Cameras should be provided with weatherproof IP Fixed Camera, lens, housing & mountings to capture video with which, would be viewed & controlled through the Video Management Software, recorded and stored.

Perimeter Fence

- b) Outdoor Camera system of 06 Cameras should be provided with weatherproof IP Fixed Camera, lens, housing & mountings to capture video with which, would be viewed & controlled through the Video Management Software, recorded and stored.
- c) All the cameras shall be IP based and shall be connected in a fiber optic based dedicated LAN exclusively for CCTV Surveillance system.

Camera Specification

- d) Outdoor camera with weatherproof housing with all mounting bracket.
- e) Camera pure Day/Night 1080p
- f) Range 100m
- g) Angle of view 102deg
- h) IR capable to capture color image at 0.05Lux condition
- i) IR should support minimum 50m at 0Lux condition

Other System Hardware

- j) All the ethernet switches and other electronic units used in outdoor environment shall be housed inside a cabinet with natural cooling arrangement.
- k) Cabling shall be laid in a proper ducting system.
- I) NVR shall make continuous recording of all cameras for 24 hrs x 7 days with hardware should have adequate storage for a period of 30 days.
- m) The video management system shall be provided with a workstation PC connected to the CCTV in the control room. The PC with keyboard, mouse, software's and related network components shall be installed in a wall mounted network rack.
- n) System to be installed in the Control Room / Office cabin.

Necessary Wall mounted 6U cabinet Rack shall be mounted in the Control Room with necessary power sockets and Cooling Fan

12. Mechanical Installation Work Method

The following category of work methods to be produced by the contractor during the execution of the works.

Welding

All welding shall be carried out in accordance with qualified and approved weld procedures by welders who have been qualified to the relevant testing code.

Welding procedures for steels shall be qualified according to ASME IX or EN 288-3 as applicable and to this standard. Consumables for welding austenitic stainless-steel Type 6Mo shall contain a minimum of 8% Mo, 15 % Cr and 28 % (Mo + Cr).



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Weld methodology shall cover

- Butt Welds
- Branch Welds
- Fillet welds

<u>Alignment</u>

The ends of piping components to be butt welded shall be accurately aligned in accordance with the requirements on ANSI B31.3. The maximum internal misalignment shall be 1.5mm except that where the pipe wall thickness is less than 6mm the internal misalignment shall not exceed 25% of the wall thickness.

Fit-up & Temporary Attachments.

Parts to be welded shall be carefully aligned and held securely in position by clamps, tack welds in the welding groove, bridge pieces or wedges.

Protection from Weather

The welder and welding area shall always be adequately protected from the weather so that the weld integrity is not detrimentally affected by wind, rain or snow or from the decline of the welder's ability when working at low temperatures or other adverse conditions.

Shielding Gasses

Shielding gases shall normally be one of the following, depending on the particular application

- Argon to BS 4365
- Argon/oxygen mixtures consisting of argon to BS 4365 with up to 5% oxygen to BS 4365. Total impurities 0.07% maximum.
- Argon/carbon dioxide mixtures consisting of argon to BS 4365 with up to 25% carbon dioxide to BS 4105 type 1 and up to 5% oxygen (if required) to BS 4363.

Storage, Protection and Baking

The Storage, protection and baking of all welding electrodes, filler wires and fluxes shall be in accordance with the Manufacturer's recommendations.

13. Welder Qualification

- a) All pressure containing welds and welds made onto pressure parts shall be made in accordance with a
 procedure written and qualified in accordance with the ASME Boiler & Pressure Vessel Code Section
 IX. No welding shall be carried out until the procedure have been approved and the test results
 accepted by the Company.
- b) Each welding procedure shall be given a reference number and shall be cross referenced to construction drawing and to the applicable qualification records.
- c) All welders shall be qualified in accordance with the requirements of the ASME Boiler and pressure Vessel Code Section IX.
- d) Each Welder shall be assigned an identification number, letter or symbol.

14. Pressure Testing

- a) All flanged piping assemblies shall be hydrostatically tested in the Fabricator's works prior to shipment. The test medium shall be potable water, unless otherwise specified. The water temperature shall be maintained above 7 degrees Celsius or the ductile/brittle transition temperature, whichever is the higher, throughout the test.
- b) Other piping assemblies, such as those with Welding ends, do not require to be hydrostatically tested at the Fabricator's works. In this case however the Fabricator remains responsible for any defects causing leakage or failure in his fabrication found during the site test of the erected pipework.
- c) Erected pipework shall be pressure tested in accordance with ANSI B31.3.



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- d) Prior to pressure testing being carried out the inside of the pipework shall be clean and free from loose mill scale and foreign matter.
- e) All pressure tests shall be carried out in the pressure of the Inspector and shall be to his satisfaction est pressures shall be held steady at the required pressure for a period of four hours, without further use of the test pressurizing pump.
- f) For all tests, vents shall be located at the high points in the system, or of the section to be tested, in order to ensure compete displacement of air from the system.
- g) All equipment likely to sustain damage during the test is to be removed from the pipeline, control valves are to be left in the open position.
- h) Records are to be kept of each test. The information to be recorded is to be as follows:
 - i) Pipeline or system tested
 - ii) Testing Medium
 - iii) Test Pressure
 - iv) Temperature of Testing Medium
 - v) Date of Test
 - vi) Signature of the Company's Engineer and'

15. Pipe Supports

- a) Where pipe supports are required to be welded to the pipe, as specified in the drawings, this shall be carried out during the fabrication of the pipe spool, with the exception of pipe support shoes which are generally welded during installation flanged piping assemblies shall be hydrostatically tested in the Fabricator's.
- b) The Fabricator shall ensure there is adequate field fit margin in the pipe supports to allow the piping to be installed without forcing.
- c) Metallic surfaces of supports which will be inaccessible after erection shall receive a protective coating before assembly in accordance with Company Standard Surface Coatings.

16. Painting

a) Process Pipeline and Process equipment's

The Process Piping and all process equipment's shall be painted this will normally be one of the following: Finish painted. Primer Zinc rich epoxy 50 micron DFT, Midcoat MIO 2 pack epoxy 125 micron DFT, Finish coat Acrylic modified 2 pack polyurethane 50 micron DFT. Colour – White.

b) Fire Fighting Equipment

The Fire Fighting Piping and all equipment's shall be painted; this will normally be one of the following: Finish painted. Primer Zinc rich epoxy 50 micron DFT, Midcoat MIO 2 pack epoxy 125 micron DFT, Finish coat Acrylic modified 2 pack polyurethane 50 micron DFT. Colour – Signal Red.

c) Other Equipment's

All mechanical and Structural shall be painted, this will normally be one of the following: Finish painted. Primer Zinc rich epoxy 50 micron DFT, Midcoat MIO 2 pack epoxy 125 micron DFT, Finish coat Acrylic modified 2 pack polyurethane 50 micron DFT. Finished Color - will be advised later.

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17. Markings

a) Markings / Grade Identifications

All necessary equipment's Grade designator / indicator shall be placed using Outdoor Waterproof Decals which should withstand for minimum of 3yaers, all the marking shall be in accordance to EI1542.

- 1- Marking, Labels and Client Logo for the Tanks
- 2- Marking for Pipelines
- 3- Marking for Other Equipment's Installed

b) Flow Direction

The system shall be incorporated with flow indicator; such flow indicator can be accompanied as apart of Grade identification as given GTP markings and accordance to EI1542.

c) Facility Signages

All required Facility signages shall be provided by the Contactor; signages includes outdoor signs on plastics / metals / stickers.

- 1- Facility Name Board
- 2- Safety and Hazard Signages
- 3- Operational Instructions

PROCESS PIPING

Technical description for Process piping materials

Description	Additional Information
45Deg Elbow	A403 Gr.316L, Sch40s BW, ASME16.9
90Deg Elbow - Long Radius	A403, LR, Gr.316L, Sch40s BW, ASME16.9
Ball Valve	Stainless Steel, API598, 150#RF, ASTM A351, ASME B16.5, Fire Test API 607, Hand lever operated with soft sleeve.
Blind Flange	ANSI B16.5, 150#, F316L
Bottom Loading Adapters	Model 61528 A C - EATON
Concentric Reducer	A403 Gr.316L, Sch40s BW, ASME16.9
Double Block and Bleed Valve	API 6D, Dual Expanding Discs - DBB-DIB Gate Valves, ASME B16.5, ANSI Class 150, API 6D, API598, Handwheel Operated, CF8M/SS3304 + Satellite for Jet Fuel Application
Equal Tee	A403 Gr.316L, Sch40s BW, ASME16.9
Flange	FFX 50.40 - ELAFLEX
Gasket	Type CGI Style - Spiral Wound Gasket , ASME 16.20
Gate Valve	Stainless Steel, API600, API SPEC 6D, 150#RF, ASME B16.5, Temp ASME 16.34, Tested to API598 or API 6D, Operation Hand Wheel
Pressure Gauge - 4"	EN837-1, Stainless steel 316L, Lower mount (LM), ½ BSP (male), Glycerin 99.7 %, Dial-Aluminum, white, red and black lettering, NS 63 with pointer stop pin
Reducing Tee	A403, LR, Gr.316L, Sch40s BW, ASME16.9
Safety Valve	API 526, 8bar, ASME B16.5, SS316, A351 CF
Socket Long	ASTM A182, F316L Seamless / Weld Socket Fittings
Stainless Steel Pipes	SMLS, A312 GR 316L, Sch 40s
Studs with Nuts	ASTM A193 Grade B16, suitable for B16.5 Flanges, with Hexagonal Nuts on both ends
Threaded Socket	ASTM A182, F316, BSP THREADED SOCKET



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Submission Check List

DECLURED DOCUMENTS		FICK IF	
1	Company Registration Certificate		
2	Cover Letter		
3	Company Profile		
4	Project Cost and Payment Terms		
5	Audited Financial Statements		
6	Relevant Past Experience		
07	Cost Break Down (BOQ)		
08	Bid Form (Form A)		
09	Related Party Disclosure (Form B)		
10	Implementation Plan/Work Schedule		



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BID FORM (FORM A)

Description of Work:	Construction and development of all civil works relevant to an Aviation Fuel Storage Depot at N. Maafaru International Airport.
Bid to:	Island Aviation Services Ltd
Address	Island Aviation Services Limited, M. Dar Al-Eiman Building, Majeedhee Magu, Male' 20345, Republic of Maldives

Having examined the conditions of Contract, technical specifications, drawings and bill of quantities for the execution of above named works, I/we the undersigned, offer to construct and maintain the whole said work in conformity with the said conditions of contract, technical specifications, drawings and bill of quantities for the sum of MVR:
().
We undertake, if our Bid is accepted, to commence the works as per the confirmed Implementation Plan and to complete whole of the works in the Contract.
We agree to abide by this bid for a period of 120 days from the date of submission of the proposal, and it shall remain binding upon us and maybe accepted at any time before the expiration of that period.
We understand that you are not bound to accept the lowest or any Bid you receive.
Unless and until a formal agreement is prepared and executed, this bid, together with our written acceptance thereof, shall constitute a binding contract between us.
Yours sincerely,
Signed
In the capacity of
Duly authorized to sign bids for and on behalf of
(Company Name & Stamp)
Date:
Name & Address of Signatory
Name:
Address:



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RELATED PARTY DISCLOSURE (FORM B)

Island Aviation Services Limited M. Dar Al-Eiman Building, Majeedhee Magu, Male' 20345, Republic of Maldives

[Date]

Dear Sir/ Madam,

<u>Project:</u> Construction and development of all civil works relevant to an Aviation Fuel Storage Depot at N. Maafaru International Airport.

Subject: Related Party Disclosure

With the exception of the below specified, I hereby declare that, we, the party is in no way, shape or form related to Island Aviation; created either through an employer-employee agency relationship between employees or directors of Island Aviation or by way of ownership of Island Aviation.

Name of the Related Party	Designation of the Related Party	Relationship

Yours sincerely,

[Name of signatory]
[Title]

Note:

- 1. Related parties for this purpose include:
- 1.1. Employees or directors of the Company
- 1.2. Close family members of any employee/ director of the Company. Close family members here refer to spouse, including former spouse relatives, which comprise: siblings, cousins, uncles and aunts, nephews and nieces, lineal ancestors (presumably, it means parents, grandparents and other ancestors of direct lineage), lineal descendants (children, grandchildren and other direct descendants).



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COMPANY INFORMATION FORM (EOI)		
Business Name	KINIATION FORM (LOI)	
Business Nume		
Correspondence Address		
Desistand Address		
Registered Address		
Date of Incorporation		
Name of Representative		
Designation of Representative		
besignation of hepresentative		
Contact No.		
Email Address		