

Request for proposal RFP and Scope Of work for Admin Block conversion to Inpatient Ward Area.

Total Covered area to be renovated is =1300 SQM

The current area application is Administration Area.

The proposed Area Application will be Inpatient Ward Area.

1. Scope of Work

The scope includes the complete renovation and conversion of an existing 1300 sqm administration area into a fully complied inpatient ward. The works shall include:

- Architectural modifications (Internal Only)
- MEP (Mechanical, Electrical, Plumbing) works
- Medical gas systems
- Fire safety systems
- IT and nurse call systems
- Interior finishes
- Furniture, Fixtures & Equipment (FF&E)
- Compliance with infection control and patient safety standards

2. Design and Planning Requirements

- **Functional Planning Unit (FPU):** Inpatient Unit (Medical)
- **Room Types:** Patient rooms (single/double), nurse stations, treatment rooms, clean/dirty utility, staff areas, storage, waiting areas
- **Minimum Room Sizes:** As per Health Authority Room Data Sheets (RDS) and Room Layout Sheets (RLS)
- **Accessibility:** Compliance with Health authority Healthcare Facility Guidelines (Part C – Access, Mobility, OH&S)
- **Infection Control:** As per Health Authority Healthcare Facility Guidelines Part D – Infection Control Guidelines
- **Engineering Services:** As per Health Authority Healthcare Facility Guidelines Part E – Engineering Guidelines

3. Regulatory Compliance

- All work must comply with:
- Health Authority Healthcare Facility Guidelines (Parts A–F)
- Sharjah Civil Defense (DCD) fire safety regulations
- Sharjah Municipality building codes
- SEWA and Etisalat/DU requirements for utilities and IT

4. Deliverables

- Detailed architectural and engineering drawings
- Room data sheets and layouts
- Medical equipment layout and specifications

- Fire and life safety plans
- Phasing and implementation schedule

RFP (request for Proposal)

Space Standards and Components:

In new facility, the maximum room capacity shall be one or two patients per room. Minimum dimensions, excluding such items as ensuites, built-in robes, alcoves, lockers, entrance lobbies and floor mounted mechanical equipment shall be as follows:

Room Type	Minimum Width	Minimum Length	Minimum Area
SINGLE BEDROOM	3800 mm	3960 mm	18m2
TWO BEDROOM	3800mm	6300mm	28m2

These spaces should accommodate comfortable furniture for one or two family members or carers without blocking staff member access to patients. Minimum room dimensions are based on overall bed dimensions (buffer to buffer) of 2200mm long x 1050mm wide. Minor encroachments including columns and hand basins that do not interfere with functions may be ignored when determining space requirements

Entry/ Reception Area/ Waiting Area

The Reception is the receiving hub of the unit and may be used to control the security of the Unit. Optionally, gender separated waiting areas for visitors may be provided either immediately outside or immediately inside the unit. Waiting areas may be shared between 2 or even 3 adjacent Inpatient Units. This area needs access to separate male/female toilet facilities and prayer rooms. Optionally, visitors and staff gowning, and protective equipment may also be located immediately at the entrance for infection control in case ward isolation becomes necessary during a break-out.

Support Areas

Support Areas include:

- Handwashing,
- Linen and
- Equipment bays
- Clean Utility,
- Dirty Utility and Disposal Rooms
- Pantries

Bed Spacing / Clearances:

All patient beds must comply with standard components for fittings, furniture, mechanical and electrical services and nurse call systems including the clearances that they imply. In bedrooms there shall be a clearance of 1200 mm available at the foot of each bed to allow for easy movement of equipment and beds.

Accessibility:

Bedrooms and ensuites should comply with accessibility requirements in line with regional and international standards; including NFPA. Accessible bedrooms and ensuites should enable normal activity for wheelchair dependent patients, as opposed to patients who are in a wheelchair because of their hospitalization.

Doors:

Door openings to inpatient bedrooms shall have a minimum of 1200mm clear opening to allow for easy movement of beds and equipment.

Safety and Security:

The facility, furniture, fittings and equipment must be designed and constructed in such a way that all users of the facility are not exposed to avoidable risks of injury.

Drug Storage:

All drugs should be managed by the responsible nurses via a Medication Room. Optionally Medication Room may be combined with a Clean Utility room as long as the requirements of both functions are accommodated. Controlled or dangerous drugs must be kept in a secure cabinet within the Medication Room with alarm. A refrigerator, as required; to store restricted substances, it must be lockable or housed within a lockable storage area. Medication Room must have space for parking a medication trolley.

Finishes:

Finishes including building fabric, floor, wall and ceiling finishes, should be relaxing and noninstitutional as far as possible. The following additional factors should be considered in the selection of finishes:

1. acoustic properties
2. durability
3. ease of cleaning
4. infection control
5. fire safety
6. movement of equipment

In areas where clinical observation is critical such as bedrooms and treatment areas, colour selected must not impede the accurate assessment of skin tones. Walls shall be painted with lead free paint.

Curtains / Blinds

Each room should have partial blackout facilities (blinds or lined curtains) to allow patients to rest during the daytime. Window curtains and privacy bed screens must be washable, fireproof and cleanly always maintained. Disposable bed screens may also be considered. If blinds are to be used instead of curtains, the following will apply: Vertical blinds and Holland blinds are preferred over horizontal blinds as they do not provide numerous surfaces for collecting dust. Horizontal blinds may be used within a double-glazed window assembly with a knob control on the bedroom side.

Building Services Requirements

1. Demolition work in compliance with the Hospital Infection control policy.
2. Civil and fit out works in compliance with the existing facility Specification Specially for the conversion wet area (Washroom, Housekeeping Room, etc.)
3. As per the site requirement, the coring and chipping in the RCC slab prior to proceed scanning and structural analysis compliance shall be done.

• Plumbing Scope of work (Dismantling and isolating the Area):

1. Dismantle existing plumbing services and fixtures, plug unnecessary connections, and extend plumbing to a new location as per the proposed layout to meet end-user requirements. Locate all existing plumbing services within the proposed Ward area.
2. Ensure the main water supply to the room is shut off to prevent any water leakage during the dismantling process. Securely plug all unnecessary plumbing connections to prevent any leaks. Ensure that all plugs are properly sealed and tested for leaks.
3. Install new piping and fixtures as per the proposed layout. Ensure all connections are secure and leak-free.
4. Test the newly installed plumbing services for proper functionality and leaks.

• Plumbing Scope of work (Supply and Installation)

The scope of work includes, but is not limited to, the supply and installation of the following:

1. **Domestic Water Supply Piping:**
 - Install cold and hot domestic water supply piping.
2. **Auto Sink Mixer:**
 - Supply and install auto sink mixers.
3. **55 cm Wash Basin:**
 - Supply and install 55 cm wash basins at different locations as shown in drawing.
4. **Drainage Piping:**
 - Install drainage piping as required.
5. **Scanning for Drainage Connection:**
 - Perform scanning of the 1st floor lower level, and ground floor high level for drainage connections.
6. **Core Cutting:**
 - Conduct core cutting as per site requirements.
7. **Floor Chipping for Drainage Piping:**
 - Perform floor chipping for drainage piping as per site requirement.
8. **Pressure and Leak Testing:**
 - Conduct pressure and leak tests in accordance with standards.
9. **Identification Stickers and Bends:**

- Provide and install identification stickers and bends as required.

10. As-Built Drawings:

- Prepare and submit as-built drawings, incorporating existing services drawings.

HVAC Supply and Installation

Total Covered Area approximately = 1300 SQM

Available Air flow from AHU 16 Recirculation Only = 11840 l/sec

The following requirements must be adhered too for Patient Room HVAC systems. As a minimum Patient rooms should be provided with temperature control (21-24°C), maximum 60% RH, with a 6 ACH SA/ 2 ACH OA. Each patient room should be provided with a thermostat linked with the existing BMS system (Honey well and Alerton) .

1. GI Ducting Installation:

- Modification in the main supply and installation of new Heater batteries to achieve the required temperature. Installation of GI ducting for air distribution, including both modifications and new installations, as per site requirements in all the individual user areas.

2. Volume Control Dampers (VCDs) and Fire Dampers (FDs):

- Supply and install VCDs and FDs as required for the project.

3. Mineral Wool Insulation:

- Install mineral wool insulation as per hospital requirements for the proposed layout to ensure proper air distribution, adhering to ASHRAE standards.

4. Air Outlets (Grill/Diffusers) :

- Supply and install powder-coated Air Outlets (Grill/Diffusers) as per approved RFC.

5. Heater Batteries:

- Install, test, and commission heater batteries for the following areas:
- Addition of heater Batteries with flow capacity as per requirement in every patient room as well individual user area.

6. LTHW Piping and Valve Package:

- Supply and install low-temperature hot water (LTHW) piping and valve package for new heater battery (MS Pipe Schedule 40 or PPR recommended).

7. Water and Air Balancing, Testing, and Commissioning:

- Perform water and air balancing, testing, and commissioning for the renovated area.

8. Identification Stickers and Bends:

- Provide and install identification stickers and bends as required.

9. As-Built Drawings:

- Prepare and submit as-built drawings, incorporating existing services and structure drawings.

Scope of Work: BMS Control

1. The contractor shall include the supply of all items of control equipment such as valves and thermostats, and damper motors/actuators. The BMS contractor shall also include the off-loading, positioning, and fixing of all control panels.

2. Provide and commission BMS integrated thermostats in individual user area.
3. **Start-Up Test and Validation:**
 - Conduct start-up tests and validation of the BMS.
4. **As-Built Composite Electric Diagrams:**
 - Provide as-built composite electric diagrams showing interlocks between equipment furnished under this and other sections, and controls furnished herein.
5. **Completion Reports:**
 - Upon completion of work, submit reports of check-out and successful commissioning of the BMS.

Scope of Work: Central Medical Gas System Supply and Installation

Supply and install Bed Head unit Nos. 1 each patient room including Central Medical Gas (Medical Oxygen, Medical Air, and Vacuum) each patient room upon the drawing and sample approval from the end user . The system should be installed as per SHA Standards in proposed area..

1. **Complete System Design and Installation:**
 - This includes the complete detailed design, supply, erection, setting to work, testing, commissioning, and handing over of the medical gas pipeline systems to form a complete installation as scheduled and in accordance with the specifications and in full compliance with all relevant standards and the requirements of NFPA 99.
2. **Testing Standards:**
 - Medical gas installations shall be tested in accordance with NFPA 99, Health Technical Memorandum U.K. (HTM-02) standards for medical gases installation, and Euro Pharmacopoeia for medical gas quality.
3. **Medical Grade Piping:**
 - Install medical grade piping from the existing provision near the nurse station in the pediatric ward.
4. **Future Connection and Isolation Valves:**
 - Tap-up from the existing future connection and extend for future connection with a new set of isolation valves.
5. **Pressure and Leak Testing:**
 - Conduct pressure and leak tests in accordance with standards.
6. **Identification Stickers and Bends:**
 - Provide and install identification stickers and bends as required.
7. **As-Built Drawings:**
 - Prepare and submit as-built drawings, incorporating existing services drawings.

Electrical Scope of work

Power and lighting.

1. Electrical Power Design Drawing as per proposed layout .
2. As built Load schedule.
3. Provision for Normal /emergency /UPS power as per requirement of new load schedule.
4. Addition of DB and SMDB according to new load schedule in DB.

5. PVC and GI Conduit & cable pulling for the required power outlets and lighting as per new layout.
6. Lights of approved Lux shall be installed as per Clinical requirement with 50,000 Hrs life span.
7. Cable tray and trunking to be provided as per the area requirement.
8. Earth strip be provided for all the mechanical containment and connected to main earthing system.
9. Provide detailed documentation of the cable installation, including as-built drawings, test reports, and compliance certificates.

Central Battery

1. In each separate area one light shall be connected to the Central Battery System via through SCM and SVAEL, along with programming and updating in easy check panel.
2. Civil Defense approved Exit Light shall be installed as per NFPA and Local Authority Standards.
3. Updating the Evacuation plane as per new proposed layout.

Fire Alarm System

1. Supply installation, testing and reprogramming of Fire alarm system and addition of Smoke detectors in proposed area as per NFPA and civil defense requirement.

Telephone Data

1. Cat 6 UTP Schinder Shall b provided for the telephone and data network.
2. Trunking and Containment, wiring, final fix testing and commissioning from point to IDF panel and patch panel shall be provided as per requirement.
3. Labeling shall be provided to all the telephone outlets.

Nurse Call System

Supply and installation of Nurse Call system along with Containment, wiring and final fix shall be installed and programmed as per existing make (Honeywell) including integration main system in proposed area.

MEP Material Specification

Low Temperature Hot Water Heater Battery

A low temperature hot water coil (LTHW) coil shall be provided to heat the supply air at each individual user area. The valve position shall be modulated when the normal operating period is signaled by the BMS and the supply fan is proven.

Flexible Ducting

1. Flexible ducting shall be provided for connections between ductwork, terminal units, diffusers if required. It shall conform to the requirements of BS 476 Parts 6, 7 (class 1) & part 20 (15 minutes).
2. Maximum lengths shall be 1.5 meters, and all ducting shall be adequately supported to prevent oscillation and noise generation.
3. Flexible connections shall be kept as short as possible and shall be supported rigidly to prevent movement due to air flow.

Ductwork Identification Markers

1. Comply with DW 144 for identification of ductwork.
2. Direction of flow markers shall be provided on all ductwork to identify the service and direction of flow. Markers shall be of triangular shape of 150 mm length of side and point in the direction of flow.
3. Direction of flow markers shall be provided that is easy
4. visible locations at approximately 3.5-meter intervals.

Insulation

Mineral Wool

1. Mineral pipe insulation sections shall have a nominal density of not less than 120 kg/m³.
Pre-formed pipe sections shall be resin bonded with a thermal conductivity not exceeding 0.038 W/mK at 50 °C mean temperature
2. Mineral wool duct slab shall have a nominal density of not less than 45kg/m³ with a thermal conductivity not exceeding 0.04 W/mK at 50 °C mean temperature.
3. Thickness of insulation shall be in accordance with BS 5422: 2001

Piping Works

Valves, cocks, air vents and pipework accessories shall be provided where indicated on the drawings and at all positions necessary for the proper working, regulation, control and maintenance of the installation with the approval.

Double regulating Valve Fixed orifice double regulating valve to BS7350 Valve body material: Bronze Pressure rating: PN25 End connections: Threaded to BS 21 Specification: Fitted with two insertion points allowing quick connection.

Approved Manufacturers / Vendors ;

Sr.No	Material Description	Make
HVAC		
1	Heater Batteries	Bissol or equivalent
2	Duct Sensors & Thermostat	Honeywell
3	Galvanized Iron (GI) Duct	Nippon -Japan, Or equivalent
4	Mineral Wool Insulation	Rock Wool -Fujairah
5	Volume Control Dampers	Local
6	MS Piping for Heater Battery	Suriya
7	MI Fitting for LTHW	Crane
8	Heater battery Valves Assembly	Crane
9	Flexible Duct	Supaflex or equivalent

10	Flexible Duct Rigid	Supaflex or equivalent
11	Disc Valves	Betacad
12	Air Diffusers	Betecad
13	Angle/Support/Nut/Rods	N/A
14	Control valve	ACSYS Control
15	Thermostat Make - Alerton (Honeywell) Model - VLD-362-FF	BMTS
Sanitary/Plumbing		
1	Wash Basin	RAK-Karla
2	Wash Basin – Mixer Auto	RAK-Kludi - Zentia
3	Floor Drain Cover	Generic
4	Acrylic Sheet wall protection 3 mm thick white Milky	Generic
5	Bottle Trap with Waste	Vigga – CP
6	Domestic Water Supply PPR Pipe	Aquatherm- Germany
7	Soil & Waste Drainage PVC Grey	Hepworth Cory
Fire Fighting		
1	Pendant Sprinkler Head NPT Thread K-5.6, 79C Standard response Bronze finish UL /FM (RA3415) Make Reliable Model F156	Al Arabia
2	Concealed Pendent Sprinkler Head NPT Thread K-5.6, 74C Quick response White cover plate finish UL /FM (RA3415) Make Reliable Model G5-56	Al Arabia
3	GI Piping	Suriya Schedule 40
4	GI Fitting	SIAM -Thailand.
Medical Gas System		
1	Bedhead Units	Dorsys-UAE
2	Copper Piping	Lawton-UK
3	Lockable Line Valves	Medical Grade
4	Medical Gas Valves	Medical Grade
5	Area Service Unit c/w Alarm	Beacon Medas or equivalent as per approved sample
Electrical & Low Current		
1	2 Gang DP With Red R/R	MK
2	2 Gang DP With Neon	MK
3	1 Gang DP With Neon	MK
4	1 Gang DP With Red R/R	MK
5	GI Box 3 x 6 Make	MK
6	GI Box 3 x 3 Make	MK
7	GI Box 3 x 3 Deep Make	MK
8	6 Gang Grid Switch	MK

9	1 Gang 1 Way Switch W/R	MK
10	2 Gang 1 Way Switch W/R	MK
11	3 Gang 1 Way Switch W/R	MK
12	Telephone Data outlet	Schneider
13	RJ 45 Key Stone Jack	Schneider
14	RJ 45 Jack	Schneider
15	Patch Panel 24 Port	Schneider
16	Sub Circuit Monitor (CBS)	Eaton
17	SVAEL Unit (CBS)	Eaton
18	Exit Light Wall Mounted	Eaton
19	Exit Light Hanging Type	Eaton
20	LED Panel 60 x 60 36W	Ledvance specialized services
21	LED Down Light	Ledvance
22	LED Spotlight	Ledvance
23	Card Reader HID RP 40	HID
24	Magnetic Lock	Generic
25	Push Button	Generic
26	Belden Cable	Belden
27	Cable Cat6 UTP	Schneider
28	FP 200 Wire - White & RED	Ducab
29	Flexible Wire	Ducab
30	Wire – Single Core	Ducab
31	GI Trunking Fitting HDG (Hot Dipped Galvanized)	Unitech-UAE
32	Earth Strip	Unitech-UAE
33	PVC Conduit	Decduct
34	PVC Conduit Accessories	Decduct
35	PVC Connector	Generic
36	PVC Conduit fittings	Decoduct
37	Kopex Gland Complete	Barton
38	GI Flexible Conduit	Barton
39	Kopex Gland	Copex
40	PVC circular Junction Box , Saddle, and Cover	Decoduct
41	SD/MCP/PROG	GE-USA
42	ELCB	ABB
43	MCB	ABB
44	Cable - XLPE	Ducab
45	Cable - ECC	Ducab
46	Cable Gland	Bicon
47	E- Fiercely	Generic

Proposed Ward Area.

