



**icmr** | **RMRCPB**  
INDIAN COUNCIL OF  
MEDICAL RESEARCH | REGIONAL MEDICAL RESEARCH  
CENTRE, PORT BLAIR

आई सी एम आर – क्षेत्रीय आयुर्विज्ञान  
अनुसंधान केन्द्र, पोर्ट ब्लेयर  
स्वास्थ्य अनुसंधान विभाग, स्वास्थ्य और परिवार  
कल्याण मंत्रालय, भारत सरकार

ICMR - Regional Medical Research Centre,  
Port Blair  
Department of Health Research, Ministry of Health  
and Family Welfare, Government of India

Ref No. 1-48/Labworks/SL-VRDL/RMRC/PB/1048

Date: 05<sup>th</sup> February, 2020

### **TENDER NOTICE**

Sealed quotations are invited by ICMR-Regional Medical Research Centre , Post Box No. 13, Dollygunj , Port Blair- 744 103, so as reach this office on or before 4<sup>th</sup> March, 2020 by 04:00 PM to be opened on the same day at 4:30 PM for the work “Modification of the Labs into Molecular and serology diagnostic facility. The details of work with specification are available in official website [www.rmrc.res.in](http://www.rmrc.res.in) .

Accounts Officer  
For Director

# MODIFICATION OF THE LABS IN TO MOLECULAR AND SEROLOGY DIAGNOSTIC FACILITY

## 1. MOLECULAR DIAGNOSIS LABORATORY

Total Plinth Area: 50 feet x 15 feet

### A) Negative Pressure Rooms equal to BSL-3

Work/ Equipment			
S.No	Specifications	Unit	Qty
<b>1</b>	<b>Supply and installation of the equipment: Supply AHU</b>		
	<ul style="list-style-type: none"> <li>➤ Capacity: 2400 CFM</li> <li>➤ Double skin AHU complete with mixing box, Cooling coil, fan, volume control dampers for Supply, fresh air, fresh air filter.</li> <li>➤ Static Pressure (mm wg) - 100</li> <li>➤ Construction – 28 mm Puf Moulded Double Skin Detachable Panels</li> <li>➤ Structural - Extruded Spl Alloy Al Profiles filled with PUF</li> <li>➤ Panel - External Skin - 0.6 mm Pre plasticised Sheet</li> <li>➤ Panel - Internal Skin - 0.6 mm Plain GI Sheet</li> <li>➤ Insulation Material/thickness - 25mm Thick Puf with 45kg/m3 density</li> <li>➤ Fan Make &amp; Type - Nicotra/Kruger make DIDW Backward Curve Centrifugal Fan</li> <li>➤ Fan Wheel size &amp; No. of Fans - RDH 315R #1</li> <li>➤ Fan Speed in RPM - 2381</li> <li>➤ Critical Fan Speed in RPM – 3100</li> <li>➤ Fan Outlet Velocity in mps - 8.68</li> <li>➤ Motor</li> <li>➤ Drive Arrangement - Taper Lock Pulleys for Fan &amp; Motor Both</li> <li>➤ Type of Balancing/Test Procedure - Statically &amp; Dynamically/AMCA Tested</li> <li>➤ Type of Vibration Isolators - Rubberized Mounts</li> <li>➤ Filters Provision - Pre Filters</li> <li>➤ Pre Filters - 10 Mic - Included</li> <li>➤ Coil Type - Cooling Coil</li> <li>➤ Coil Surface Area - Sq. ft - 6.11</li> <li>➤ No. of. Coil Rows- 6</li> <li>➤ Face Velocity Across the coil - 491</li> <li>➤ Coil Specification - 1/2 " OD 27SWG Copper &amp; 36 SWG Al Fin at FPI</li> <li>➤ Canvass - SRF make Flexible Fire Retardant Canvass</li> <li>➤ Hardware - Galvanized, Operation Wt (Kgs) - Aprox – 240</li> </ul>	<b>No</b>	<b>1</b>

<b>2</b>	<b>Supply and installation of the equipment: Exhaust AHU</b>		
	<ul style="list-style-type: none"> <li>➤ Capacity: 3500 CFM</li> <li>➤ Double skin AHU complete with mixing box, volume control dampers for return, fresh air</li> <li>➤ Static Pressure (mm wg) - 100</li> <li>➤ Construction - 28mm Puf Moulded Double Skin Detachable Panels</li> <li>➤ Structural - Extruded Spl Alloy Al Profiles filled with PUF</li> <li>➤ Panel - External Skin - 0.6 mm Pre plasticised Sheet</li> <li>➤ Panel - Internal Skin - 0.6 mm Plain GI Sheet</li> <li>➤ Insulation Material/thickness - 25mm Thick Puf with 45kg/m3 density</li> <li>➤ Fan Make &amp; Type - Nicotra/Kruger make DIDW Backward Curve Centrifugal Fan</li> <li>➤ Fan Wheel size &amp; No. of Fans - RDH 315R #1</li> <li>➤ Fan Speed in RPM - 2381</li> <li>➤ Critical Fan Speed in RPM – 3100</li> <li>➤ Fan Outlet Velocity in mps - 8.68</li> <li>➤ Motor</li> <li>➤ Drive Arrangement - Taper Lock Pulleys for Fan &amp; Motor Both</li> <li>➤ Type of Balancing/Test Procedure - Statically &amp; Dynamically/AMCA Tested</li> <li>➤ Type of Vibration Isolators - Rubberized Mounts</li> <li>➤ Filters Provision - Pre Filters, Hardware etc</li> </ul>	<b>No</b>	<b>1</b>
<b>2.2</b>	<b>Supply and installation of the equipment: EXHAUST BIBO:</b> The HEPA filter plenums (Containment Housing) shall be made in CRCA Powder Coated with air tight and leak proof construction. The HEPA filter plenums shall be provided Isolation dampers at Inlet and Outlet, fumigation ports to allow IN-SITU decontamination of HEPA filters and Bag-In- Bag-Out facility for change/replacement of filters. The quantity of HEPA filter should be provided on the basis of supply air room volume, length of duct.	<b>No</b>	<b>1</b>
<b>2.3</b>	<b>Supply HEPA Filter with Plenum Box,</b> <b>Plenum Box : Made up of SS 304</b>  Type : Box type, Media : Ultra clean glass fibre paper-imported, Casing : Aluminium Powder coated, Retention : 0.3 Micron, Efficiency : 99.97%, Pressure drop: 18 mm of W.C.	<b>No</b>	<b>1</b>
<b>3.0</b>	<b>Ducting:</b> Ventilation ducting will be made out of minimum 24 gauge GI sheet, exhaust duct from the lab to the AHU will be 24 Gauge GI Duct. All the ventilation ducting including return air riser will be leak proof. Insulation material with Nit Rile foam/cross linked Polyethylene material (Aluminum Foil insulation)	<b>lot</b>	<b>1</b>

<b>4.0</b>	<b>Condensing unit:</b> Supply and Installation of Condensing unit with 8.5 Tr capacity	<b>No</b>	<b>1</b>
<b>5.0</b>	<b>Dampers:</b> Galvanised steel Volume controlled damper, Opposed / parallel Blade Dampers are used to carry out a rough air system balance with closer control being carried out at the individual grilles or diffusers.	<b>No</b>	<b>8</b>
<b>6.0</b>	<b>Supply &amp; Return air grills</b>	<b>No</b>	<b>8</b>

	MOC: CRCA powder Coated 1.2 mm thick with perforation		
<b>7.0</b>	<b>Ceiling Panel:</b>		
	Modular ceiling: Modular ceiling will be made for Clean Room application, pre-engineered 50 mm thick PUF panels with PCGI Sheets with PUF insulation of minimum 38-40 kg/m <sup>3</sup> . Both surfaces should be power coated 0.8 mm thick PCGI sheet and will be installed along the outer walls, partitions and false ceiling to create an impervious shell, which is fully sealed.	<b>Sq.ft</b>	<b>300</b>
<b>9.0</b>	<b>Wall Panel:</b>		
	Modular wall: Modular wall will be made for Clean Room application, pre-engineered 50 mm thick PUF panels with PCGI Sheets with PUF insulation of minimum 38-40 kg/m <sup>3</sup> . Both surfaces should be power coated 0.8 mm thick PCGI sheet and will be installed along the outer walls, partitions and false ceiling to create an impervious shell which is fully sealed.	<b>Sq.ft</b>	<b>1000</b>
<b>10.0</b>	<b>Covings:</b> Extruded aluminum anodized R75 clip-on type (Male & Female connectors) covings for entire wall to floor, wall to wall & wall to ceiling joints. Extruded aluminum double cove integrated with top track of the partition panels. Corner internal & external coving joining pieces in aluminum anodized finish. Having similar construction and finish as the walls and properly sealed with silicon sealant with wall & ceiling	<b>Rmt</b>	<b>70</b>
<b>11.0</b>	<b>Modular Clean room Door</b>		
	Flush Door finishes shall be 50 mm thick 0.8 mm thick PCGI sheet suitable to fix on 50 mm thick wall panel with provisions for double glazing glass for all door and hardware like push plate. PUF Panels will be with PCGI Sheets, powder coated on both sides and PUF insulation of minimum 38-40 kg/m <sup>3</sup> . Concealed hardware for fixing of door frames, door closure, SS hinges, SS Door handle, SS ball bearing butt hinges, automatic drop seal, concealed tower bolt for the double door, both sides lock and key arrangement etc  <b>Size: (Single door) 915 x 2100 mm</b>	<b>No</b>	<b>4</b>

<b>12.0</b>	<b>Differential Pressure Gauge</b>		
	Supply, Installation of Dwyer make Magnahelic Pressure gauges 0 – 10 mm for monitoring differential room pressures	<b>No</b>	<b>4</b>
<b>13.0</b>	<b>Epoxy Flooring:</b> Flooring shall be of 3 mm of industrial epoxy including screed compound for adhesion with bubble free perfect smooth finishing completed into two steps: Hardening and smoothening .Epoxy used for this application will be self-leveling and clean room compatible.	<b>Sq.ft</b>	<b>300</b>
<b>14.0</b>	<b>Epoxy coving</b>	<b>Rft</b>	<b>140</b>
<b>15.0</b>	Supply and installation of Biosafety Cabinet Class – 2 A2 with the exhaust	<b>3ftX2 ft</b>	<b>2 nos</b>
<b>16.0</b>	Supply and installation of Biosafety Cabinet Class – 2 B2 with the exhaust	<b>3ftX2 ft</b>	<b>2 nos</b>

**Positive Pressure Rooms & Corridor:**

Work/ Equipment			
S.No	Specifications	Unit	Qty
<b>1</b>	<b>Supply and installation of the equipment: Supply AHU</b>		
	<ul style="list-style-type: none"> <li>➤ Capacity: 1500 CFM</li> <li>➤ Double skin AHU complete with mixing box, Cooling coil, fan, volume control dampers for Supply, fresh air, fresh air filter.</li> <li>➤ Static Pressure (mm wg) - 100</li> <li>➤ Construction – 28 mm Puf Moulded Double Skin Detachable Panels</li> <li>➤ Structural - Extruded Spl Alloy Al Profiles filled with PUF</li> <li>➤ Panel - External Skin - 0.6 mm Pre plasticised Sheet</li> <li>➤ Panel - Internal Skin - 0.6 mm Plain GI Sheet</li> <li>➤ Insulation Material/thickness - 25mm Thick Puf with 45kg/m3 density</li> <li>➤ Fan Make &amp; Type - Nicotra/Kruger make DIDW Backward Curve Centrifugal Fan</li> <li>➤ Fan Wheel size &amp; No. of Fans - RDH 315R #1</li> <li>➤ Fan Speed in RPM - 2381</li> <li>➤ Critical Fan Speed in RPM – 3100</li> <li>➤ Fan Outlet Velocity in mps - 8.68</li> <li>➤ Motor</li> <li>➤ Drive Arrangement - Taper Lock Pulleys for Fan &amp; Motor Both</li> <li>➤ Type of Balancing/Test Procedure - Statically &amp; Dynamically/AMCA Tested</li> <li>➤ Type of Vibration Isolators - Rubberized Mounts</li> <li>➤ Filters Provision - Pre Filters</li> <li>➤ Pre Filters - 10 Mic - Included</li> <li>➤ Coil Type - Cooling Coil</li> <li>➤ Coil Surface Area - Sq. ft - 6.11</li> <li>➤ No.of. Coil Rows- 6</li> <li>➤ Face Velocity Across the coil - 491</li> <li>➤ Coil Specification - 1/2 " OD 27SWG Copper &amp; 36 SWG Al Fin at FPI</li> <li>➤ Canvass - SRF make Flexible Fire Retardant Canvass</li> <li>➤ Hardware - Galvanized, Operation Wt (Kgs) - Aprox – 240</li> </ul>	<b>No</b>	<b>1</b>
<b>2.0</b>	<p><b>Supply HEPA Filter with Plenum Box,</b></p> <p>Type: Box type, Media: Ultra clean glass fibre paper-imported, Casing: Aluminium Powder coated, Retention: 0.3 Micron, Efficiency: 99.97%, Pressure drop: 18 mm of W.C.</p> <p><b>Size: 610 x 610 x 70 mm</b></p>	<b>No</b>	<b>2</b>
<b>3.0</b>	<p><b>Ducting:</b> Ventilation ducting will be made out of minimum 24 gauge GI sheet, exhaust duct from the lab to the AHU will be 24 Gauge GI Duct. All the ventilation ducting including return air riser will be leak proof. Insulation material with Nit Rile foam/cross linked Polyethylene material (Aluminum Foil insulation)</p>	<b>lot</b>	<b>1</b>

<b>4.0</b>	<b>Condensing unit:</b> Supply and Installation of Condensing unit with 5 Tr capacity	<b>No</b>	<b>1</b>
<b>5.0</b>	<b>Dampers:</b> Galvanised steel Volume controlled damper, Opposed / parallel Blade Dampers are used to carry out a rough air system balance with closer control being carried out at the individual grilles or diffusers.	<b>No</b>	<b>2</b>
<b>6.0</b>	<b>Supply &amp; Return air grills</b> MOC: CRCA powder Coated 1.2 mm thick with perforation	<b>No</b>	<b>16</b>
<b>7.0</b>	<b>Ceiling Panel:</b>		
	Modular ceiling: Modular ceiling will be made for Clean Room application, pre-engineered 50 mm thick PUF panels with PCGI Sheets with PUF insulation of minimum 38-40 kg/m <sup>3</sup> . Both surfaces should be power coated 0.8 mm thick PCGI sheet and will be installed along the outer walls, partitions and false ceiling to create an impervious shell which is fully sealed.	<b>Sq.ft</b>	<b>700</b>
<b>8.0</b>	<b>Wall Panel:</b>		
	Modular wall: Modular wall will be made for Clean Room application, pre-engineered 50 mm thick PUF panels with PCGI Sheets with PUF insulation of minimum 38-40 kg/m <sup>3</sup> . Both surfaces should be power coated 0.8 mm thick PCGI sheet and will be installed along the outer walls, partitions and false ceiling to create an impervious shell which is fully sealed.	<b>Sq.ft</b>	<b>854</b>
<b>9.0</b>	<b>Covings:</b> Extruded aluminum anodized R75 clip-on type (Male & Female connectors) covings for entire wall to floor, wall to wall & wall to ceiling joints. Extruded aluminum double cove integrated with top track of the partition panels. Corner internal & external coving joining pieces in aluminum anodized finish. Having similar construction and finish as the walls and properly sealed with silicon sealant with wall & ceiling	<b>Rmt</b>	<b>70</b>
<b>10.0</b>	<b>Modular Clean room Door</b>		
	Flush Door finishes shall be 50 mm thick 0.8 mm thick PCGI sheet suitable to fix on 50 mm thick wall panel with provisions for double glazing glass for all door and hardware like push plate. PUF Panels will be with PCGI Sheets, powder coated on both sides and PUF insulation of minimum 38-40 kg/m <sup>3</sup> . Concealed hardware for fixing of door frames, door closure, SS hinges, SS Door handle, SS ball bearing butt hinges, automatic drop seal, concealed tower bolt for the double door, both sides lock and key arrangement etc <b>Size: (Single door) 915 x 2100 mm</b>	<b>No</b>	<b>3</b>
<b>11.0</b>	<b>Differential Pressure Gauge</b>		
	Supply, Installation of Dwyer make Magnahelic Pressure gauges 0 – 10 mm for monitoring differential room pressures	<b>No</b>	<b>2</b>

<b>12.0</b>	<b>Epoxy Flooring:</b> Flooring shall be of 3 mm of industrial epoxy including screed compound for adhesion with bubble free perfect smooth finishing completed into two steps: Hardening and smoothening .Epoxy used for this application will be self-leveling and clean room compatible.	<b>Sq.ft</b>	<b>700</b>
<b>13.0</b>	<b>Epoxy coving</b>	<b>Rft</b>	<b>180</b>
<b>14.0</b>	<b>Curved toughened glass in four sides 8 mm thick</b>	<b>No</b>	<b>8</b>
<b>14.1</b>	<b>Glass Fitting</b>	<b>No</b>	<b>8</b>
<b>15.0</b>	Supply and installation of Biosafety Cabinet Class – 2 A2 with the exhaust	<b>3ftX2 ft</b>	<b>2 nos</b>

**B) Supply and installation of the equipment: Semi-Automated Round Glass Door with Air Shower**

<b>Work/ Equipment</b>			
<b>S.No</b>	<b>Specifications</b>	<b>Unit</b>	<b>Qty</b>
<b>1.0</b>	Round toughened glass door entry, room size : 10 feet dia meter x 8 feet height with automated curved double leaf door at both the side	<b>No</b>	<b>1</b>
	Semi-automated round glass door should have laboratory grade air shower		
	Air shower should be on the top (6 feet diameter) and a powder coated stage in the corresponding floor area		
	Doors should be sliding to both sides with automatic motor operated		

**C) Roof of the Corridor and Room Area**

<b>Work/ Equipment</b>			
<b>S.No</b>	<b>Specifications</b>	<b>Unit</b>	<b>Qty</b>
<b>1.0</b>	<b>Total area including all the rooms and corridors should be with roof using GI powder coated puff panels at 8 feet</b>		
1.1	<b>Ceiling Panel:</b> Modular ceiling: Modular ceiling will be made for Clean Room application, pre-engineered 50 mm thick PUF panels with PCGI Sheets with PUF insulation of minimum 38-40 kg/m3. Both surfaces should be power coated 0.8 mm thick PCGI sheet and will be installed along the outer walls, partitions and false ceiling to create an impervious shell which is fully sealed.	<b>Sq.ft</b>	<b>303</b>
1.2	<b>Covings:</b> Extruded aluminum anodized R75 clip-on type (Male & Female connectors) covings for entire wall to floor, wall to wall & wall to ceiling joints. Extruded aluminum double cove integrated with top track of the partition panels. Corner internal & external coving joining pieces in aluminum anodized finish. Having similar construction and finish as the	<b>Rmt</b>	<b>45</b>

	walls and properly sealed with silicon sealant with wall & ceiling		
1.3	<b>Epoxy Flooring:</b> Flooring shall be of 3 mm of industrial epoxy including screed compound for adhesion with bubble free perfect smooth finishing completed into two steps: Hardening and smoothing .Epoxy used for this application will be self-leveling and clean room compatible.	<b>Sq.ft</b>	<b>303</b>
1.4	<b>Epoxy coving</b>	<b>Rft</b>	<b>130</b>
2.0	<b>Virus burn out system to reach temperature 200° C</b>	<b>No</b>	<b>1</b>
3.0	<b>Illumination of all the rooms – LED lights</b>	<b>No</b>	<b>28</b>
4.0	<b>UV lights with fitting</b>	<b>No</b>	<b>10</b>
5.0	Electrical Points with double switches at two different locations	<b>Lot</b>	<b>1</b>
6.0	Civils work, demolition of existing items, re-plastering work etc	<b>Lot</b>	<b>1</b>

## **II. (Work:2) CENTRAL LAB – 2 (SEROLOGY LAB)**

**Total Plinth Area: 35 feet x 15 feet**

### **A) Roof of the Corridor and Room Area**

<b>Work/ Equipment</b>			
<b>S.No</b>	<b>Specifications</b>	<b>Unit</b>	<b>Qty</b>
<b>1.0</b>	<b>Total area including all the rooms and corridors should be with roof using GI powder coated puff panels at 8 feet</b>		
1.1	<b>Ceiling Panel:</b> Modular ceiling: Modular ceiling will be made for Clean Room application, pre-engineered 50 mm thick PUF panels with PCGI Sheets with PUF insulation of minimum 38-40 kg/m3. Both surfaces should be power coated 0.8 mm thick PCGI sheet and will be installed along the outer walls, partitions and false ceiling to create an impervious shell which is fully sealed.	<b>Sq.ft</b>	<b>525</b>
1.2	<b>Covings:</b> Extruded aluminum anodized R75 clip-on type (Male & Female connectors) covings for entire wall to floor, wall to wall & wall to ceiling joints. Extruded aluminum double cove integrated with top track of the partition panels. Corner internal & external coving joining pieces in aluminum anodized finish. Having similar construction and finish as the walls and properly sealed with silicon sealant with wall & ceiling	<b>Rmt</b>	<b>50</b>
1.3	<b>Epoxy Flooring:</b> Flooring shall be of 3 mm of industrial epoxy including screed compound for adhesion with bubble free perfect smooth finishing completed into two steps: Hardening and smoothing .Epoxy	<b>Sq.ft</b>	<b>525</b>



	used for this application will be self-leveling and clean room compatible.		
1.4	<b>Epoxy coving</b>	<b>Rft</b>	<b>100</b>
2.0	<b>Illumination of all the rooms – LED lights</b>	<b>No</b>	<b>20</b>
3.0	Electrical Points with double switches at two different locations	<b>Lot</b>	<b>1</b>
4.0	<b>Modular wall:</b> Modular wall will be made for Clean Room application, pre-engineered 50 mm thick PUF panels with PCGI Sheets with PUF insulation of minimum 38-40 kg/m <sup>3</sup> . Both surfaces should be power coated 0.8 mm thick PCGI sheet and will be installed along the outer walls, partitions and false ceiling to create an impervious shell which is fully sealed.	<b>Sq.ft</b>	<b>1060</b>

5.0	<b>Covings:</b> Extruded aluminum anodized R75 clip-on type (Male & Female connectors) covings for entire wall to floor, wall to wall & wall to ceiling joints. Extruded aluminum double cove integrated with top track of the partition panels. Corner internal & external coving joining pieces in aluminum anodized finish. Having similar construction and finish as the walls and properly sealed with silicon sealant with wall & ceiling	<b>Rmt</b>	<b>25</b>
6.0	<b>Modular Clean room Door</b>		
	Flush Door finishes shall be 50 mm thick 0.8 mm thick PCGI sheet suitable to fix on 50 mm thick wall panel with provisions for double glazing glass for all door and hardware like push plate.PUF Panels will be with PCGI Sheets, powder coated on both sides and PUF insulation of minimum 38-40 kg/m <sup>3</sup> . Concealed hardware for fixing of door frames, door closure, SS hinges, SS Door handle, SS ball bearing butt hinges, automatic drop seal, concealed tower bolt for the double door, both sides lock and key arrangement etc  <b>Size: (Single door) 915 x 2100 mm</b>	<b>No</b>	<b>6</b>
7.0	<b>Supply of Air – Conditioning: Cassette AC, 3 Ton</b>	<b>No</b>	<b>2</b>
7.1	<b>Installation of Split Ac</b>	<b>No</b>	<b>2</b>
7.2	<b>Copper tubing</b>	<b>Lot</b>	<b>2</b>
16.0	Supply and installation of Biosafety Cabinet Class – 2 A2 with the exhaust	<b>3ftX2 ft</b>	<b>2 nos</b>

**B) Curve partition in the sides of the work benches:**

--	--	--	--

S.No	Specifications	Unit	Qty
1.0	Curved toughened glass in four sides 8 mm thick	No	8
1.1	Glass Fitting	No	8

C) Supply and installation of the equipment: Semi-Automated Round Glass Door with Air Shower:

Work/ Equipment			
S.No	Specifications	Unit	Qty
1.0	Round toughened glass door entry, room size : 9 feet dia meter x 8 feet height with automated curved double leaf door at both the side	No	1
	Semi-automated round glass door should have laboratory grade air shower		
	Air shower should be on the top (6 feet diameter) and a powder coated stage in the corresponding floor area		
	Doors should be sliding to both sides with automatic motor operated		

3. BSL-3 GROUND FLOOR

Total Plinth Area: 20 feet x 15 feet

A) Sample Handling Laboratory:

Work/ Equipment			
S.No	Specifications	Unit	Qty
1	<b>Supply and installation of the equipment: Supply AHU</b>		
	<ul style="list-style-type: none"> <li>➤ Capacity: 1500 CFM</li> <li>➤ Double skin AHU complete with mixing box, Cooling coil, fan, volume control dampers for Supply, fresh air, fresh air filter.</li> <li>➤ Static Pressure (mm wg) - 100</li> <li>➤ Construction – 28 mm Puf Moulded Double Skin Detachable Panels</li> <li>➤ Structural - Extruded Spl Alloy Al Profiles filled with PUF</li> <li>➤ Panel - External Skin - 0.6 mm Pre plasticised Sheet</li> <li>➤ Panel - Internal Skin - 0.6 mm Plain GI Sheet</li> <li>➤ Insulation Material/thickness - 25mm Thick Puf with 45kg/m3 density</li> <li>➤ Fan Make &amp; Type - Nicotra/Kruger make DIDW Backward Curve</li> </ul>		

	<ul style="list-style-type: none"> <li>➤ Centrifugal Fan</li> <li>➤ Fan Wheel size &amp; No. of Fans - RDH 315R #1</li> <li>➤ Fan Speed in RPM - 2381</li> <li>➤ Critical Fan Speed in RPM – 3100</li> <li>➤ Fan Outlet Velocity in mps - 8.68</li> <li>➤ Motor</li> <li>➤ Drive Arrangement - Taper Lock Pulleys for Fan &amp; Motor Both</li> <li>➤ Type of Balancing/Test Procedure - Statically &amp; Dynamically/AMCA Tested</li> <li>➤ Type of Vibration Isolators - Rubberized Mounts</li> <li>➤ Filters Provision - Pre Filters</li> <li>➤ Pre Filters - 10 Mic - Included</li> <li>➤ Coil Type - Cooling Coil</li> <li>➤ Coil Surface Area - Sq. ft - 6.11</li> <li>➤ No.of. Coil Rows- 6</li> <li>➤ Face Velocity Across the coil - 491</li> <li>➤ Coil Specification - 1/2 " OD 27SWG Copper &amp; 36 SWG Al Fin at FPI</li> <li>➤ Canvass - SRF make Flexible Fire Retardant Canvass</li> <li>➤ Hardware - Galvanized, Operation Wt (Kgs) - Aprox – 240</li> </ul>	<b>No</b>	<b>1</b>
--	--	-----------	----------

<b>2</b>	<b>Supply and installation of the equipment: Exhaust AHU</b>		
	<ul style="list-style-type: none"> <li>➤ Capacity: 2000 CFM</li> <li>➤ Double skin AHU complete with mixing box, volume control dampers for return, fresh air</li> <li>➤ Static Pressure (mm wg) - 100</li> <li>➤ Construction - 28mm Puf Moulded Double Skin Detachable Panels</li> <li>➤ Structural - Extruded Spl Alloy Al Profiles filled with PUF</li> <li>➤ Panel - External Skin - 0.6 mm Pre plasticised Sheet</li> <li>➤ Panel - Internal Skin - 0.6 mm Plain GI Sheet</li> <li>➤ Insulation Material/thickness - 25mm Thick Puf with 45kg/m3 density</li> <li>➤ Fan Make &amp; Type - Nicotra/Kruger make DIDW Backward Curve Centrifugal Fan</li> <li>➤ Fan Wheel size &amp; No. of Fans - RDH 315R #1</li> <li>➤ Fan Speed in RPM - 2381</li> <li>➤ Critical Fan Speed in RPM – 3100</li> <li>➤ Fan Outlet Velocity in mps - 8.68</li> <li>➤ Motor</li> <li>➤ Drive Arrangement - Taper Lock Pulleys for Fan &amp; Motor Both</li> <li>➤ Type of Balancing/Test Procedure - Statically &amp; Dynamically/AMCA Tested</li> <li>➤ Type of Vibration Isolators - Rubberized Mounts</li> <li>➤ Filters Provision - Pre Filters, Hardware etc</li> <li>➤</li> </ul>	<b>No</b>	<b>1</b>
<b>2.2</b>	<b>Supply and installation of the equipment: EXHAUST BIBO:</b> The HEPA filter plenums (Containment Housing) shall be made in CRCA Powder Coated with air tight and leak proof construction. The HEPA filter plenums shall be provided Isolation dampers at Inlet and Outlet,	<b>No</b>	<b>1</b>

	fumigation ports to allow IN-SITU decontamination of HEPA filters and Bag-In- Bag-Out facility for change/replacement of filters. The quantity of HEPA filter should be provided on the basis of supply air room volume, length of duct.		
<b>2.3</b>	<b>Supply and installation of the equipment: Supply HEPA Filter with Plenum Box,</b>  <b>Plenum Box : Made up of SS 304</b>  Type : Box type, Media : Ultra clean glass fibre paper-imported, Casing : Aluminium Powder coated, Retention : 0.3 Micron, Efficiency : 99.97%, Pressure drop: 18 mm of W.C.	<b>No</b>	<b>1</b>
<b>3.0</b>	<b>Ducting:</b> Ventilation ducting will be made out of minimum 24 gauge GI sheet, exhaust duct from the lab to the AHU will be 24 Gauge GI Duct. All the ventilation ducting including return air riser will be leak proof. Insulation material with Nit Rile foam/cross linked Polyethylene material (Aluminum Foil insulation)	<b>lot</b>	<b>1</b>

<b>4.0</b>	<b>Condensing unit:</b>  Supply and Installation of Condensing unit with 5.5 Tr capacity	<b>No</b>	<b>1</b>
<b>5.0</b>	<b>Dampers:</b>  Galvanised steel Volume controlled damper, Opposed / parallel Blade Dampers are used to carry out a rough air system balance with closer control being carried out at the individual grilles or diffusers.	<b>No</b>	<b>4</b>
<b>6.0</b>	<b>Supply &amp; Return air grills</b>  MOC: CRCA powder Coated  1.2 mm thick with perforation	<b>No</b>	<b>8</b>
<b>7.0</b>	<b>Ceiling Panel:</b>  Modular ceiling: Modular ceiling will be made for Clean Room application, pre-engineered 50 mm thick PUF panels with PCGI Sheets with PUF insulation of minimum 38-40 kg/m <sup>3</sup> . Both surfaces should be power coated 0.8 mm thick PCGI sheet and will be installed along the outer walls, partitions and false ceiling to create an impervious shell which is fully sealed.	<b>Sq.ft</b>	<b>200</b>
<b>9.0</b>	<b>Wall Panel:</b>		

	Modular wall: Modular wall will be made for Clean Room application, pre-engineered 50 mm thick PUF panels with PCGI Sheets with PUF insulation of minimum 38-40 kg/m <sup>3</sup> . Both surfaces should be power coated 0.8 mm thick PCGI sheet and will be installed along the outer walls, partitions and false ceiling to create an impervious shell which is fully sealed.	<b>Sq.ft</b>	<b>1200</b>
<b>10.0</b>	<b>Covings:</b> Extruded aluminum anodized R75 clip-on type (Male & Female connectors) covings for entire wall to floor, wall to wall & wall to ceiling joints. Extruded aluminum double cove integrated with top track of the partition panels. Corner internal & external coving joining pieces in aluminum anodized finish. Having similar construction and finish as the walls and properly sealed with silicon sealant with wall & ceiling	<b>Rmt</b>	<b>105</b>
<b>11.0</b>	<b>Modular Clean room Door</b>		
	Flush Door finishes shall be 50 mm thick 0.8 mm thick PCGI sheet suitable to fix on 50 mm thick wall panel with provisions for double glazing glass for all door and hardware like push plate. PUF Panels will be with PCGI Sheets, powder coated on both sides and PUF insulation of minimum 38-40 kg/m <sup>3</sup> . Concealed hardware for fixing of door frames, door closure, SS hinges, SS Door handle, SS ball bearing butt hinges, automatic drop seal, concealed tower bolt for the double door, both sides lock and key arrangement etc  <b>Size: (Single door) 915 x 2100 mm</b>	<b>No</b>	<b>3</b>

<b>12.0</b>	<b>Differential Pressure Gauge</b>		
	Supply, Installation of Dwyer make Magnahelic Pressure gauges 0 – 10 mm for monitoring differential room pressures	<b>No</b>	<b>2</b>
<b>13.0</b>	<b>Epoxy Flooring:</b> Flooring shall be of 3 mm of industrial epoxy including screed compound for adhesion with bubble free perfect smooth finishing completed into two steps: Hardening and smoothening .Epoxy used for this application will be self-leveling and clean room compatible.	<b>Sq.ft</b>	<b>200</b>
<b>14.0</b>	<b>Epoxy coving</b>	<b>Rft</b>	<b>150</b>
<b>15.0</b>	<b>Illumination of all the rooms – LED lights</b>	<b>No</b>	<b>10</b>
<b>16.0</b>	Electrical Points with double switches at two different locations	<b>Lot</b>	<b>1</b>

#### **IV. WINDOWS MODIFICATION:**

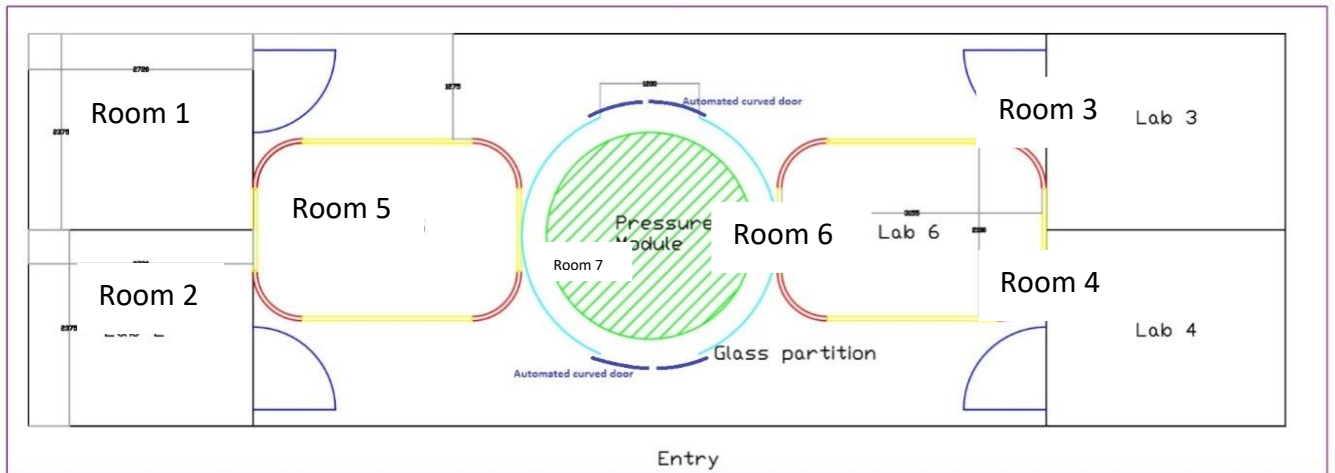
**A) Modification of the windows in the front side**

<b>Work/ Equipment</b>			
<b>S.No</b>	<b>Specifications</b>	<b>Unit</b>	<b>Qty</b>
<b>1.0</b>	Fourteen windows (each size approx 4.3 Height x 8 feet width) in the front view of the ground floor should be replaced with 12 mm tinted glass with aluminium frame	<b>No</b>	<b>14</b>
	Removing of existing glass work		

**V. OTHER COMMON ITEMS:**

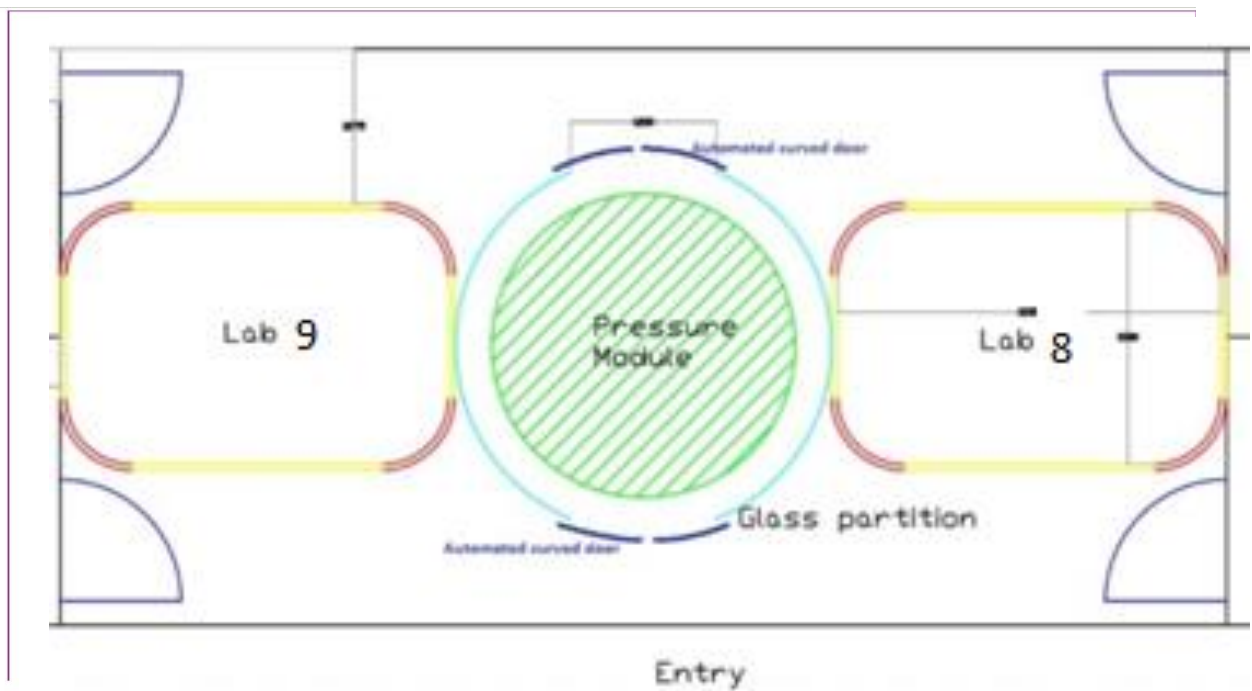
<b>S.No</b>	<b>Specifications</b>	<b>Unit</b>	<b>Qty</b>
<b>1.0</b>	Static Pass box: MOC: Stainless steel 304 Inner size: 1 feet x 1 feet x 1 feet (L x H x W) (Specification enclosed)	<b>No</b>	<b>4</b>
<b>2.0</b>	Internet node for connecting the lab computers	<b>Lot</b>	<b>1</b>
<b>3.0</b>	Laboratory revolving chairs	<b>No</b>	<b>50</b>
<b>4.0</b>	Wall Mounted cupboards size 2 ft x 6 ft made of powder coated GI with doors	<b>No</b>	<b>12</b>
<b>5.0</b>	View panel: size – 3ft x 3ft, double glass	<b>No</b>	<b>6</b>
<b>6.0</b>	Intercom facility between labs	<b>Lot</b>	<b>1</b>
<b>7.0</b>	CCTV facility	<b>Lot</b>	<b>1</b>
<b>8.0</b>	Supply and installation of Biosafety Cabinet Class – 2 A2		<b>4 nos</b>
<b>9.0</b>	Wash basin 4 Nos with mini storage tank for disinfection of the drain	<b>No</b>	<b>4</b>

### 1. Molecular Diagnosis Laboratory

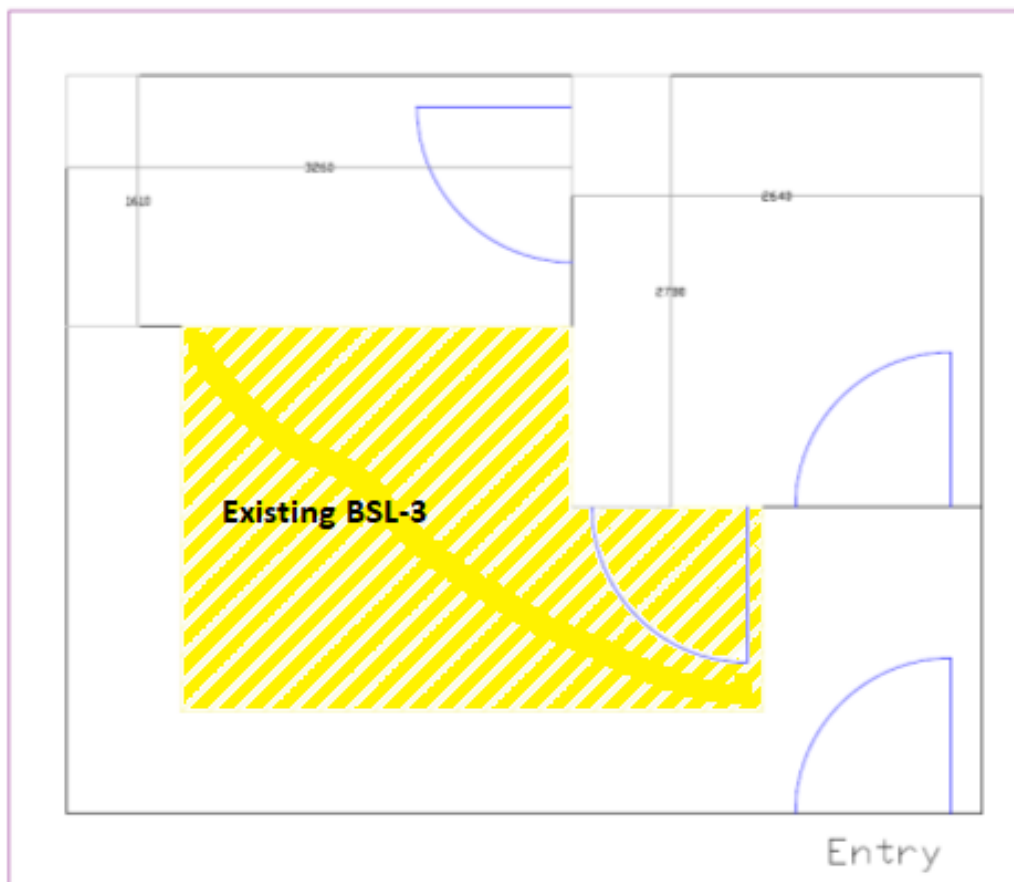


Molecular LAB

### 2. Serodiagnosis Laboratory



## Sample Handling Laboratory (Old BSL-3)



### Terms and condition:

In submitting your estimate, following particulars should be noted otherwise it may not be considered at all:-

- The last date for submission of quotation may strictly to be followed.
- The rates quoted should be inclusive of supply, installation and taxes as applicable.
- The terms & conditions for supply, installation and warranty period, if any is to be mentioned.
- The work should be completed in all respect within 30 days on receipt of the work order.
- The interested firms may contact or visit the Centre for clarification, if any.
- The EMD of 2 % on the rate quoted in the shape of demand draft drawn in favour of the Director, ICMR-Regional Medical Research Centre, Port Blair must be enclosed with quotation.
- The rate should be quoted for each items of each categories individually.
- The Director of this Centre reserves the right to accept or reject any or all quotations without assigning any reason thereof.

**Accounts Officer  
For Director**