No. Arch/Acct./NIQ/2019-20/811

Dated: October 21, 2019

To,
The Director,
Information and Publicity,
Government of Goa,
Udyog Bhavan, 4th Floor,
Panaji - Goa

Subject: Release of publication of matter pertaining to Notice Inviting Quotation

Sir,

With reference to above cited subject, kindly publish the matter enclosed herewith in dailies of Bhaangar Bhuin in Konkani, Tarun Bharat in Marathi and Navhind Times in English script to appear on 23/10/2019, in Black and White in 2 column width × length required.

Thanking you,
Yours faithfully,

Sd/-

(Dr. Ashish K. Rege)
Professor and Principal

Copy to:
1. The Director, Information and Technology Government of Goa, Altinho, Panaji- Goa with a request to release the publication of NIQ on Govt. Website
2. Office Copy

Enclosed: Matter to be published

---

**GOA COLLEGE OF ARCHITECTURE, ALTINHO, PANAJI**
**NOTICE INVITING QUOTATION**

No. Arch/Acct./NIQ/2019-20/  Dated: October 14, 2019

The Principal, Goa College of Architecture, invites sealed quotations from reputed firms and Agencies, up to **3.00 P.M. on 04/11/2019** for **“Supply, Installation, testing & Commissioning of FIRE FIGHTING SYSTEM”**

All the original documents included the Notice Inviting Quotation are available at the following link:

[https://www.gcarch.goa.gov.in/NIQ_GCA_FF_04112019.pdf](https://www.gcarch.goa.gov.in/NIQ_GCA_FF_04112019.pdf)

For details and any clarification see Notice Board of this office at Dr. T. B. Cunha Educational Complex, Altinho, Panaji, Goa 403001

**Quotation will be opened on 05/11/2019 at 4.00 P.M.**

Principal
Goa College of Architecture
A Government of Goa Institution

GOA COLLEGE OF ARCHITECTURE
Dr. T. B. Cunha Educational Complex, Altinho, Panaji, Goa.
Tel.: (0832) 2436435, 2227144 Fax: (0832) 2227144
Email: prin.architecture@unigoa.ac.in

NOTICE INVITING QUOTATION

No. Arch/Acct./NIQ/2019-20/811 Dated: October 21, 2019

Dear Sirs,

Sealed quotations are invited by the undersigned, for “Supply, Installation, testing & Commissioning of FIRE FIGHTING SYSTEM (described overleaf) ” in the premises of Goa College of Architecture, Dr. T. B. Cunha Educational Complex, Altinho, Panaji, Goa 403001 from reputed firms and Agencies.

The last date and time of receipt of quotations are 04/11/2019 at 3.00 P.M.

Quotation will be opened on 05/11/2019 at 4.00 P.M.

Representatives of the firm(s) may be present at the time of opening the quotation if they so desire. The quotations should bear full details and where possible, be duly supported with catalogues. Pamphlets, literature of samples of the item/ items as the case may be for comparing the quality and rates of the item(s). The following instructions should be strictly observed for submitting the quotations failing which the quotations shall liable to be rejected:

1. The quotations should be submitted in duplicate and on printed pad preferably with GST number for the firm. The duplicate copy of the quotation must bear original signature and it will be kept safely in the custody of the Principal/ Office for any type of comparison in future.

2. The quotations should be submitted to the undersigned in sealed envelope duly marked “Quotation against NIQ No. Arch/ Acct./ NIQ/2019-20/ dated 21/10/2019 Due on 04/11/2019 ”on the corner of the envelope.

3. Quotation received after the closing date may be not be considered.

4. The quotation document shall be accompanied by earnest money deposit of Rs. 12,000/-, in the form of a demand draft in favor of the Principal, Goa College of Architecture.

5. On acceptance of the quotation document, earnest money will be treated as a part of the security.

6. The rates quoted should include transportation costs up to GCA Panaji clearly mentioning the percentage/ rate of sales tax or all other taxes and duties inclusive and rates should be valid for at least three months from the date of opening of quotation.

7. The rates must be quoted both in figures and words and over-writing should be avoided, however, all cutting / corrections must be duly authenticated.

8. While sending rates, the firm shall give an undertaking to the effect that the terms/ conditions mentioned in this NIQ letter including the Technical Specifications and Technical Bid supplied as part of it, against which the rates are being given are acceptable to the firm. In case the firm does not give this undertaking, their rates will not be considered.

9. The quotations should preferably be given for the items in the same orders as in the NIQ letter.

10. The whole supply as per order shall have to be completed within two months of issuing of order failing which the Principal shall have the right to charge penalty for delay of Rs. 5,000/- per day maximum of 10% of cost of the works.

11. If the supplier/ firm is manufacturer/ authorized dealer/ sole distributor/ of any item, the certificate to this effect should be attached.

12. Normally, payment will be made on receipt of material and check with regard to quality and quantity of the material supplied and on submission of pre-receipted bill by the firm.

13. The quantity shown against each item is approximate and may vary as per demand of Goa College of Architecture at the time of placing order.

14. The Principal GCA, reserves the right to reject any quotation wholly or partly without assigning any reason.

Principal:

Accepted by Agency:
<table>
<thead>
<tr>
<th>SN</th>
<th>Description of Item</th>
<th>Qty</th>
<th>Rate</th>
<th>Unit</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>Fire Fighting Pump</strong>&lt;br&gt;Providing and installing Fire Fighting Pump of approved make and 450 LPM capacity capable of maintaining a pressure of not less than 3kg/Cm². Including erection of foundation, coupling with Underground Static Water Storage Tank</td>
<td>01</td>
<td>Each</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td><strong>Motor control panel</strong> of cubical construction, floor mounted type, fabricated out of 2mm. thick CRCA sheet, compartmentalized with hinged lockable doors, dust &amp; vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, interconnection with solid aluminum strip/ single core PVC insulated FRLS copper conducted cable, having suitable mounting for switch gear &amp; accessories &amp; internal control (relay, timer, sensor annunciation window for fault indication, ON/OFF/TRIP indication along with suitable conductors, overload protection, current sensing type single phase preventer) &amp; colour coded power wiring with suitable size fire retardant low smoke PVC insulated copper cable with conductor, earth terminals, numbering</td>
<td>01</td>
<td>Each</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td><strong>Piping Work</strong>&lt;br&gt;Providing &amp; fixing of mild steel black pipe (IS:1239 part-1) heavy class including cutting, screwing, welding etc. complete with fitting like anchor fasteners, bricks masonry support, coupling viz tees, bend, elbow, flanges, reducer, clamp hangers, etc as per satisfactions including cutting holes &amp; chases in bricks or RCC wall/slabs and sealing the sleeves with glass wool and fire proof material as per requirement &amp; making good the same complete including painting with one coat of primer &amp; two or more coat of synthetic enamel paint of approved make &amp; shade including steel work(jindal)</td>
<td>01</td>
<td>Each</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3” diameter</td>
<td>120</td>
<td>Meter</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2” diameter</td>
<td>120</td>
<td>Meter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td><strong>Fire Hose Reel</strong>&lt;br&gt;Supply, installation, testing &amp; commissioning of first-aid fire hose reel wall mounting swinging type complete with drum bracket, 25mm diameter type complete with drum, bracket 25mm diameter stop valve &amp; 20mm diameter 30m long high pressure braided hose reel tubing as per (IS: 444) with gun-metal shut-off nozzle having 5mm diameter orifice. The hose reel shall strictly confirm to IS:884-1985.(MAKE MINIMAX/NEWAGE/GUARD/LIFE GUARD) at locations specified as per Fire Fighting Drawing No. FF-06 and FF-07</td>
<td>04</td>
<td>Each</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td><strong>Manual Call Point</strong>&lt;br&gt;Providing and installing Manual Call Point confirming to BIS:2190/2010 on Ground and First Floor coupled to a Fire Alarm Control Panel</td>
<td>02</td>
<td>Each</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td><strong>Fire Alarm Control Panel</strong>&lt;br&gt;Providing and installing Conventional Type 2 Zone Fire Alarm Control Panel of Ravel or equivalent Make</td>
<td>01</td>
<td>Each</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7. **ABC Type Fire Extinguishers**  
Providing, fixing, testing & commissioning of ABC Type Fire Extinguisher (Stored pressure) ISI marked conforming to IS:15683/2006, capacity 4 Kg complete with delivery hose, locking arrangement, pressure gauge, operation manual, bracket with two screw and sleeve; at appropriate places earmarked on floor plan drawings FF-06 and FF-07 and in accordance with BIS:2190/2010.  

8. **Carbon-di-oxide Extinguishers**  
Providing, fixing, testing & commissioning of CO2 (Carbon Dioxide) Fire Extinguisher ISI marked conforming to IS:15683/2006, capacity 4.5 Kg complete with delivery hose, locking arrangement, pressure gauge, operation manual, bracket with two screw and sleeve; at appropriate places earmarked on floor plan drawings FF-06 and FF-07 and in accordance with BIS:2190/2010.

9. **Directional Exit, Fire Safety Sign Boards**  
Providing and installing directional exit and fire safety sign boards corresponding to the specimen and size enclosed in Annexure B at appropriate places earmarked on floor plan drawings FF-06 and FF-07

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 mm × 100 mm</td>
<td>06</td>
<td>Each</td>
</tr>
<tr>
<td>300 mm × 200 mm</td>
<td>03</td>
<td>Each</td>
</tr>
<tr>
<td>200 mm × 250 mm</td>
<td>12</td>
<td>Each</td>
</tr>
<tr>
<td>600 mm × 600 mm</td>
<td>02</td>
<td>Each</td>
</tr>
</tbody>
</table>

10. **Barrier Free Sign Boards**  
Providing and installing barrier free sign boards corresponding to the specimen and size enclosed in Annexure C at appropriate places earmarked on floor plan drawings FF-06 and FF-07  

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
<td>Each</td>
</tr>
</tbody>
</table>

**Note:**  
1. The firm must submit the printed catalogues for items 1 and 3 to 8.  
2. Point by point compliance to all the above mentioned features should be provided by the firm otherwise bid will be rejected. Details of deviation if any must be clearly stated in Technical Bid.  
3. The firm must be authorized by the manufacturer to supply, install and maintain the system. The specific authorization by the manufacturer for participating in this enquiry should be enclosed, otherwise quotation will be rejected.  
4. The Technical Bid (without prices) and Price Bid should be sent in two separate sealed covers put together in one single large envelope distinctly marked accordingly, otherwise it is likely to be rejected.

Yours faithfully

Principal  
Copy to:  
1. O.C. Purchase for his information and necessary action.  
2. Assistant Accounts Officer, GCA, Panaji  
3. Notice Boards of the Department.  
4. Director, Directorate of Technical Education for kind information

Accepted by Agency:
## TECHNICAL SPECIFICATION

### Drawings

The drawings enclosed herewith are for the general guidance to the contractors. The Contractors shall upon the award of work, furnish detailed working drawings necessary to carry out the work at site.

### Inspection and approval

The contractor shall arrange all necessary inspection by the Local Authorities, as required. He shall also arrange for the tests and obtain and deliver to the Owner all necessary approval required as per local bye-laws/rules.

### Painting

All piping, equipment, cabinets furnished under this specification shall be properly painted with one coat of anti-corrosive primer and two coats of 'FIRE RED' synthetic enamel paint after installation.

### Guarantee

The contractor shall guarantee that the materials and workmanship of the entire system are of first class quality. All the equipment/apparatus shall be guaranteed to yield the specified ratings at design standards. Any defective equipment/material/workmanship found short of the specification, quality shall be rejected.

### Defects and Liability

All the equipment/material and the system shall be guaranteed against defective material and workmanship for a period of 12 months from the date of commissioning and handing over to the client along with all relevant documentation. The Contractor shall repair/rectify or replace all the defective materials, components free of cost during the guarantee period. In addition normal maintenance shall be carried out periodically during the defects liability Period including replacement of spares, as required.

### Instruction Manual/Completion Drawings/Training

The contractor shall furnish detailed instruction and operation manual in quadruplicate. The contractor shall also furnish detailed completion drawings in tracing cloth drawn to an approved scale. The drawings shall be inclusive of control schematics, if any. The contractor shall train the Owner's personnel in the operation of maintenance of the system.

### Testing

The contractor shall arrange to test the entire system as per the procedure enumerated under particular specifications, after the erection is completed. If the results of the tests are not found to be satisfactory by the College/Architect, necessary rectifications shall be done until the test results are found to be satisfactory. The installation shall be deemed to be completed only after the successful completion of the tests, to the satisfaction of the College/Architect.

### Technical Data

The Quotation Documenter shall furnish details of their equipment as per the pro forma under 'Technical Data'. The Quotation Document without technical data is liable to be rejected.

### Completion drawings

After the completion of the work and before issuance of certificate of 'Virtual Completion' the Contractor shall submit to the Architect, layout drawings drawn at approved scale indicating the complete details of work actually executed at site.

### Hydrant System

#### Piping work:

The underground pipe lines shall be G.I. Class 'C' pipes and shall include all necessary make up pieces, GI, fittings, Nut-Bolts, Gaskets, necessary excavation in any kind of soil, back filling, consolidation of trenches, carting away excess earth as directed etc.

The above ground pipe line shall be G.I. heavy duty Class 'C' pipes and shall include necessary G.I. heavy fittings like Tee, Elbows/Coupling, Nipples, Flanges etc. necessary chasing in masonry if required, making holes in masonry walls or R.C.C. structure and making it good to original surface, MS supports, etc. The pipe line shall be properly supported with suitable brackets, clamps as required.

The entire piping installation shall be tested to a hydraulic test of 12 kg/sq.cm. without any leakage of any kind for 2 hours. In case any defect/leakage is observed, the contractor shall replace/repair the same and re-test the lines to the entire satisfaction of the Architect/Principal.
All exposed pipe line shall be painted with two coats of synthetic enamel (P.O. Red) over one coat of primer of approved make and the underground pipes shall be painted with two coats of anticoagorative primer and two wraps of bitumen hessian.

All the material supplied for the job shall conform to the relevant I.S. Standard. The Contractor shall submit Test Certificates from manufacturers for all such supplies.

### STANDARDS

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.I.D.F. Pipes</td>
<td>Conforming to IS-1537/IS-7181, Class 'B' C.I.F. Fittings</td>
</tr>
<tr>
<td>G.I. Pipes</td>
<td>Conforming to IS-1239 Class 'C', ISI marked</td>
</tr>
<tr>
<td>G.I. Fittings</td>
<td>Conforming to IS-1239 Class 'C1' 'Heavy'</td>
</tr>
</tbody>
</table>

#### Sluice Valves

The Valve shall be double flanged type with non rising spindle and with C.I. body and hand wheel. The spindle of the valve shall be of SS 410 and the trim material shall be leaded tin bronze. The valve shall confirm to IS-14846 Class-PN-1 and shall be ISI marked (Kirloskar make preferred).

#### C.I. Non Return Valves

The valve shall be swing check type with flanged ends for horizontal/vertical application; The valve shall confirm 15-5312 and shall be ISI marked.

#### Hydrant Valves (Single, outlet)

The valve shall be Female Oblique type in gun metal construction with Body painted red as per IS 5290 and ISI marked.

- The closing of the valve shall be screw down type with cast iron hand wheel with marked indications for closing and opening the valve.
- The inlet of the valve shall be of 75 mm dia with flange of 200 mm dia and the outlet shall be 63 mm dia instantaneous type with blank cap.
- The valve shall confirm to IS-5290 type 'A' and shall be ISI marked. Manufacturer's Test Certificate shall be furnished for such supplies.

It shall be provided with suitable 6mm thick G.M. orifice, where necessary, to adjust the outlet pressure to 3.5 kg/sq.cm.

#### Branch Pipes

The branch pipe shall be of Gun-Metal suitable to fit in 63 mm dia instantaneous hose coupling. The branch pipe shall be with detachable G.M. nozzle with 16 mm dia discharge bore.

The branch pipe shall confirm to IS-903 and shall be ISI marked. The manufacturer’s Test Certificate shall be furnished for such supplies.

#### Hose Coupling

The hose coupling shall be instantaneous type and made out of Gun-Metal. The hose coupling shall confirm to IS-903 and shall be ISI marked. Manufacturer’s Test Certificate shall be furnished for such supplies.

#### Hose Pipes

- It shall be of 63 mm dia RRL type ‘A’ conforming to IS-636 ISI marked.

#### Hose Reels

It shall be suitable to accommodate 25mm dia * 30 m long hoses. It shall be swinging type and of sturdy construction, all parts coming in contact with water shall be either of non corrosive material or shall be suitably treated to resist corrosion. It shall rotate freely on its spindle/bearing with full length of hose reel tubing charged with water. The spindle gland and all moving parts shall be leakproof. It shall be rigidly fixed with wall with suitable bolts/anchor fasteners. It shall be supplied with 25mm dia 30m long Nylon braided PVC hose pipe of approved make, 25mm dia S.S. Ball valve on inlet inside and chrome plated Gun Metal shut off nozzle with 6 mm outlet bore. It shall be connected with riser main through 25mm dia piping.

#### Siamese Connection

- It shall be in gunmetal construction. It shall have 100mm dia flanged inlet. It shall have spring type non return valve.
**Fire Pump**

**Pump:**
It shall be centrifugal pump, either Horizontal split casing type or Back Pull Out type. It shall be with C.I. casing with bronze impeller and bronze fitted construction. It shall be of capacity 450 LPM at 3Kg/Cm² for main Electric Motor Driven. It shall be capable for delivering 150% of rated discharge at not less than 65% of the rated head. The shut-off head shall not exceed 120% of the rated head. In case of horizontal split casing pump, it shall be provided with flexible type coupling and in case of back pull out type pump, it shall be provided with spacer type coupling. It shall be coupled directly with prime mover such that the prime mover can be dismantled independently. The pumps shall be supplied with its performance test certificate from manufacturer.

On/off switches located near the hose reel hose or hydrant outlet, at each floor for the main firepump at underground water tank with a capacity to discharge 900 liters per minute at 3 bar pressure as measured at the terrace level should be installed.

**Motor:**
It shall be of suitable H.P. for the pumps stated above, It shall be squirrel cage, TEPL, type with class – B insulation. The motor for the main fire pump shall be provided with space heaters.

**Base Plate:**
The base plate shall be C.I./M.S. fabricated, " common for pump and the primer mover."

**Excavation & Trenching**
All trenches 1.10m or more in depth.

Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done. The Contractor shall take all measures on the site of the work to protect the public from accidents and shall be bound to bear the expenses of defense of every suit, action or other proceedings at law that may be brought by any persons for injury sustained owing to neglect of the above precautions and to pay any such persons or which may with the consent of the contractor be paid to compromise any claim by any such person.

**Demolition**
Before any demolition work is commenced and also during the process of the work: All roads and open areas adjacent to the work site shall either be closed or suitably protected. No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.

All practical steps shall be taken to prevent danger to persons employed from the risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so ever loaded with debris or materials as to render it unsafe.
### TECHNICAL BID: DATA TO BE FURNISHED BY CONTRACTOR

#### Fire Pump
- **Type:** Back Pull Out.
- **Make:** Kirloskar
- **Capacity in LPM:** 450
- **Delivery pressure:** 3Kg/Cm²
- **Materials of impeller:** Bronze
- **Diameter of impeller:** By Quotation Documenter
- **Rated Speed in rpm:** 2900
- **Suction and deliver Size in mm:** 100x80mm
- **Type of drive recommended:** Speed 45 KW/60HP Motor rating
- **Recommended motor rating:** 60 HP
- **Material of casing shaft:** CI Shaft steel
- **Efficiency of the pump at the rated capacity and head:** By Quotation Documenter

#### Pipes
- **Make:** Tata/Jindal/Asian or ISI Marked (ISI Marked).

#### Landing Valve.
- **Make:** SBJ/Newage/Swati
- **Type:** Oblique
- **Standard:** ISI Marked
- **Whether approved by TAC:** Yes / No

#### Valve.
- **Make:** Kirloskar make / ISI marked / equivalent
- **Material of Dody:** C.I.
- **Material of seat:** G.M

#### Hose Pipe.
- **Make:** New Age
- **Material:** Cotton synthetic yarn circular
- **Whether as per IS Standard:** Yes / No
- **Whether approved by TAC:** Yes / No
- **Material:** Approved Standard
- **G.I. Pipes:** IS-1239, Class ‘C’ ISI Marked
- **G.I. Fittings:** IS-1239, class ‘Heavy’ C ISI marked
- **C.I. sluice Valves:** IS-14846 class FN-1.0’Kirloskar make ISI Mark
- **C.I. Non-Return Valve:** IS- 5312, Kirloskar mark
- **C.I. Foot valve:** IS- 4038, Kirloskar’ mark
- **Hydrant valve:** IS- 5290, ISI mark
- **Hose Coupling:** IS- 903, ISI mark
- **Branch Pipes:** IS- 903, ISI Mark
- **Hose Pipes:** IS- 636, ISI Marked
- **CIDF Pipes:** IS- 1537 ISI Marked
- **CIF Fittings:** IS- 1538 ‘Heavy’

#### LIST OF APPROVED MAKES
- **CT double flanged pipes and fittings:** NJWM/ Kesoram/EQ
- **CT double flanged valves:** Kirloskar
<table>
<thead>
<tr>
<th><strong>GI Pipes</strong></th>
<th>: Jindal/ Tata/ Asian (ISI Marked)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gun Metal/Brass Valves</strong></td>
<td>: Leader, GG,SANT IS-778 (ISI Marked)</td>
</tr>
<tr>
<td><strong>CI manhole covers</strong></td>
<td>: RIF (Agra), BC (Agra).</td>
</tr>
<tr>
<td><strong>Pumps and Motors</strong></td>
<td>: Kirloskar / M&amp;P</td>
</tr>
<tr>
<td><strong>Reinforced Rubber Lined Canvass Hose pipes</strong></td>
<td>: CRL /Newage</td>
</tr>
<tr>
<td><strong>Hydrant valve/Branch pipes as per ISI 5290</strong></td>
<td>: SBJ/Newage/approved eq. ISI Marked</td>
</tr>
<tr>
<td><strong>Hose reels</strong></td>
<td>: SBJ/Newage/approved eq.as per ISI Marked</td>
</tr>
<tr>
<td><strong>SIGN BOARDS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Backing Sheet Material / Thickness</strong></td>
<td>: PVC Rigid Sheet 1.5 mm thickness</td>
</tr>
<tr>
<td><strong>Photoluminescent Properties for Fire Safety Sign boards</strong></td>
<td>: 8 Hrs Night Glow</td>
</tr>
<tr>
<td><strong>Graphic Sheet Properties for Directional Signs</strong></td>
<td>:</td>
</tr>
</tbody>
</table>
### ANNEXURE “B”

The colour of the Directional and Fire Safety signages shall be **RED** with Graphic symbol in **WHITE** colour and the colour of the Emergency escape signages shall be **GREEN** with Graphic symbol in **WHITE** colour as per IS 9457:2005.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>DESCRIPTION</th>
<th>SIZE (mm)</th>
<th>IMAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Emergency Exit Signages (Photoluminescent)</td>
<td></td>
<td><img src="exit.png" alt="Exit" /></td>
</tr>
<tr>
<td></td>
<td>Emergency Exit light Wall mounted with Rechargeable Battery Backup</td>
<td>100 X 300</td>
<td><img src="exit.png" alt="Exit" /></td>
</tr>
<tr>
<td>2</td>
<td>Exit Signage</td>
<td>100 X 300</td>
<td><img src="exit.png" alt="Exit" /></td>
</tr>
<tr>
<td>3</td>
<td>Staircase Identification Signage (Photoluminescent)</td>
<td>100 X 300</td>
<td><img src="exit.png" alt="Exit" /></td>
</tr>
<tr>
<td>4</td>
<td>Staircase Identification Signage (Photoluminescent)</td>
<td>100 X 300</td>
<td><img src="exit.png" alt="Exit" /></td>
</tr>
<tr>
<td>5</td>
<td>Fire Alarm Signage</td>
<td>200 X 250</td>
<td><img src="fire_alarm.png" alt="Fire Alarm" /></td>
</tr>
<tr>
<td>6</td>
<td>Fire Extinguisher Signage</td>
<td>200 X 250</td>
<td><img src="fire_extinguisher.png" alt="Fire Extinguisher" /></td>
</tr>
<tr>
<td>7</td>
<td>Hose Reel Hose Signage</td>
<td>200 X 250</td>
<td><img src="hose_reel_hose.png" alt="Hose Reel Hose" /></td>
</tr>
<tr>
<td>8</td>
<td>Assembly Point Signage</td>
<td>600 X 600</td>
<td><img src="assembly_point.png" alt="Assembly Point" /></td>
</tr>
<tr>
<td>9</td>
<td>Emergency Escape Plan Signage</td>
<td>A3 Size</td>
<td><img src="escape_plan.png" alt="Escape Plan" /></td>
</tr>
<tr>
<td>10</td>
<td>Arrow Tape (Line of Escape) Signage</td>
<td>80mm x 10mtr</td>
<td><img src="arrow_tape.png" alt="Arrow Tape" /></td>
</tr>
<tr>
<td>11</td>
<td>Signage to be installed near AHU Room, Hub Room, UPS Room Battery Room, Electrical Panel Room etc.</td>
<td>100 X 300</td>
<td><img src="notice.png" alt="Notice" /></td>
</tr>
<tr>
<td>12</td>
<td>Stairway Marking Sign</td>
<td>300 X 200</td>
<td><img src="stairway_marking.png" alt="Stairway Marking" /></td>
</tr>
</tbody>
</table>

Principal: [Signature]

(Ashok Menon)

Director

FIRE & EMERGENCY SERVICES
ANNEXURE “C”

The colour of the Signages will be **BLUE** with Graphic symbol in **WHITE** colour as per IS 9457:2005.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>DESCRIPTION</th>
<th>SIZE (mm)</th>
<th>IMAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Access symbol</td>
<td>200 X 200</td>
<td><img src="image" alt="Accessibility Symbol" /></td>
</tr>
<tr>
<td>2</td>
<td>Ramp</td>
<td>200 X 200</td>
<td><img src="image" alt="Accessibility Symbol" /></td>
</tr>
<tr>
<td>3</td>
<td>Telephone</td>
<td>200 X 200</td>
<td><img src="image" alt="Accessibility Symbol" /></td>
</tr>
<tr>
<td>4</td>
<td>Lift</td>
<td>200 X 200</td>
<td><img src="image" alt="Accessibility Symbol" /></td>
</tr>
<tr>
<td>5</td>
<td>Parking</td>
<td>200 X 200</td>
<td><img src="image" alt="Accessibility Symbol" /></td>
</tr>
<tr>
<td>6</td>
<td>Directional Signs</td>
<td>200 X 200</td>
<td><img src="image" alt="Accessibility Symbol" /></td>
</tr>
</tbody>
</table>

Director of Fire & Emergency Services

**ASHOK MENON**
DIRECTOR
FIRE & EMERGENCY SERVICES
FIRST FLOOR PLAN

NOTES:

Hose Reel shall conform with IS: 884363

The Hose Reel shall consist of following components:
1. Hub
2. Two sides
3. Swivel joint
4. Pipe with fitting
5. Wall bracket
6. Hose reel
7. Nozzle with shut off arrangement
8. Stop valve

MATERIALS:

The details of materials for the above components are given in Table 1.

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hub</td>
<td>Steel</td>
</tr>
<tr>
<td>Two sides</td>
<td>Steel</td>
</tr>
<tr>
<td>Swivel joint</td>
<td>Steel</td>
</tr>
<tr>
<td>Pipe with fitting</td>
<td>Steel</td>
</tr>
<tr>
<td>Wall bracket</td>
<td>Steel</td>
</tr>
<tr>
<td>Hose reel</td>
<td>Rubber</td>
</tr>
<tr>
<td>Nozzle with shut off arrangement</td>
<td>Brass</td>
</tr>
<tr>
<td>Stop valve</td>
<td>Brass</td>
</tr>
</tbody>
</table>

PROPOSAL FOR FIRE SAFETY COMPLIANCE, MANAGEMENT AND EVACUATION STRATEGY PLAN FOR GOA COLLEGE OF ARCHITECTURE BUILDING

GOVERNMENT OF GOA
DIRECTORATE OF FIRE & EMERGENCY SERVICES
ST. INEZ, PANAJI - GOA

DRAWING NO.: FF-07

DRAWN BY: NISHA GOAERE
CHECKED BY: DATE:

SCHEME: 1:250

SHEET NO.: FF-07