## THE ODISHA STATE POLICE HOUSING & WELFARE CORPORATION LTD. JANAPATH, BHOINAGAR, BHUBANESWAR - 22

[Electrical Division]

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## PRICE BID FOR THE WORK UNDER SL. NO :- 01 AS PER IFB

NAME OF THE WORK :- SUPPLY, INSTALLATION, TESTING & COMMISIONING OF FIRE FIGHTING AND SUPPRESSION SYSTEM AT DHAULI HEIGHTS APARTMENT PROJECTS, BADARAGHUNATHPUR, TOMANDO, BHUBANESWAR.

## BID REF NO :- 79/PM/ELECT/OPHWC/2022-23

| BID REF NO                          | :- 79/PM/ELECT/OPHWC/2022-23  |     |   |           |              |
|-------------------------------------|---|-----|---|-----------|--------------|
| NAME &<br>ADDRESS<br>OF THE<br>FIRM |   |     |   |           |              |
| Sl.No                               | Description   |     |   |           | Amount       |
| A                                   | Automatic Detection, Alarm and Talk Back System   |     |   |           | 342,480.00   |
| В                                   | Fire External Hydrant System  |     |   |           | 181,400.00   |
| С                                   | Fire Extinguishers  |     |   |           | 347,900.00   |
| D                                   | Fire Internal Hydrant System  |     |   |           | 680,550.00   |
| Е                                   | Fire Pump Room  |     |   |           | 310,741.00   |
| F                                   | Fire Sprinkler System   |     |   |           | 567,620.00   |
| G                                   | Staircase & Life Pressurisation   |     |   |           | 290,000.00   |
| Н                                   | Signage   |     |   |           | 44,050.00    |
|                                     |   |     |   | T         | 2,764,741.00 |
| A                                   | AUTOMATIC DETECTION, ALARM AND TALK BACK SYSTEM   |     |   |           |              |
| 1.0                                 | Supply,installation, testing and commissioning of Microprocessor based intelligent and electronically addressable fire alarm panel Single Loop expandable to 2 Loops, Maximum 477 addressable devices, 30 Zone, 2 Bell Circuit. The panel shall have 240 volts AC power supply, automatic battery charger, 24 volts, sealed lead acid maintenance free batteries with battery back up for 8 hours normal operation and 15 minutes alarm operation .Panel shall be provided with all accessories and equipment | Set | 1 | 95,000.00 | 95,000.00    |
| 2.0                                 | Supply, installation, testing & comisssioning of dual loop card along with termination of all the control/ signal cables with all the required components and accessories to complete the item.   | Nos |   | 60,000.00 | -            |
| 3.0                                 | Supply, installation, testing & comisssioning of Short circuit isolator with all the required components and accessories to complete the item.  | Nos | 2 | 2,060.00  | 4,120.00     |
| 4.0                                 | Supply, installation, testing & comisssioning of repeater panels along with termination of all the control/ signal cables with all the required components and accessories to complete the item.  | Nos |   | 37,420.00 | -            |
| 5.0                                 | Supply, installation, testing & comisssioning of intelligent smoke detector, Drift Compensation, Sensitivity Adjustment, 8 Bit Processor, Dual LED for 360 viewing angle, white color, Electronically Addressed, LPCB, CE & UL Approved   | Nos |   | 3,370.00  | -            |
| 6.0                                 | Supply, installation, testing & comisssioning of Intelligent<br>Combined Optical Smoke, Fixed Temperature and Rate of Rise<br>Heat Detector, Drift Compensation, Sensitivity Adjustment, 8 Bit<br>Processor.( LPCB, CE & UL Approved)   | Nos |   | 2,700.00  | -            |
| 7.0                                 | Supply, installation, testing & comisssioning of Intelligent Fixed Temperature and Rate of Rise Heat Detector, 8 Bit Processor ,Dual LED for 360 viewing angle, white color, Electronically Addressed, LPCB, CE & UL Approved   | Nos |   | 3,520.00  | -            |
| 8.0                                 | Supply, installation, testing & comisssioning of remote response indicator, dual LED for 360 viewing angle, white color, LPCB, CE & UL Approved   | Nos | _ | 150.00    | -            |

| 9.0  | Supply, installation, testing & comisssioning of Common Detector<br>Base for Addressable & Conventional Detectors (Certificated by<br>LPCB)   | Nos   |          | 380.00    | -          |
|------|---|-------|----------|-----------|------------|
| 10.0 | Supply, installation, testing & comisssioning of 4 x 4 GI Box   | Nos   |          | 170.00    | _          |
| 11.0 | Supply, installation, testing & comisssioning of Semi Flush<br>Mounting Re-settable (Non-Breaking Glass),<br>Supplied with Special Reset Tool - Compatible with both I & DI<br>Series (Certified by LPCB)   | Nos   | 12       | 5,590.00  | 67,080.00  |
| 12.0 | Supply, installation, testing & comisssioning of Anti Tamper<br>Security Cover  | Nos   | 12       | 590.00    | 7,080.00   |
| 13.0 | Supply, installation, testing & comisssioning of Addressable loop powered sandwitch type Combined Sounder and Strobe certificated by LPCB   | Nos   | 18       | 4,540.00  | 81,720.00  |
| 14.0 | Supply, installation, testing & comisssioning of Single Input/Output Module (Certificated by LPCB) - Loop Powered   | Nos   | 2        | 6,240.00  | 12,480.00  |
| 15.0 | Supply, installation, testing & comisssioning of 8 Zone master Fire telephone panel with all the required components and accessories to complete the item.  | Nos   |          | 72,810.00 | -          |
| 16.0 | Supply, installation, testing & comisssioning of Fire Fighters Telephone Socket with all the required components and accessories to complete the item.  | Nos   |          | 4,500.00  | -          |
| 17.0 | Supply, installation, testing & comisssioning of Fire Fighters Telephone Receiver with all the required components and accessories to complete the item.  | Nos   |          | 2,920.00  | -          |
| 18.0 | he required ents and accessories to complete the item.  | Nos   |          | 49,000.00 | -          |
| 19.0 | Supply, installation, testing & comissioning of Duct Probe<br>Detector with all the required components and accessories to<br>complete the item.  | Nos   |          | 21,000.00 | -          |
| 20.0 | Supply, installation, testing & comisssioning of UV Flame Detector with all the required components and accessories to complete the item.   | Nos   |          | 22,000.00 | -          |
| 21.0 | Supply, laying, termination, testing & commissioning of 2 Core 1.5 sq.mm.rigid copper cable in MS Conduit.  | Rmt   | 500      | 150.00    | 75,000.00  |
| 22.0 | Supply, laying, termination, testing & commissioning of 2 Core 1.5 sq.mm. Armoured copper cable in surface by saddling using GI metal saddles   | Rmt   |          | 110.00    | -          |
|      |   | AL CO | ST EXCLU | DING GST  | 342,480.00 |
| 1.0  | FIRE EXTERNAL HYDRANT SYSTEM  Supplying, installing, testing and commissioning of M.S Pipes confirming to IS 1239 Pt - I Heavy grade with painting, suitable type of supports (Shall be fabricated by M.S. Channel / Angle / Flat for above 50 mm dia), anchor fasteners, bolts nuts, clamps, "U" bolt, malleable specials such as Reducers, Tees, elbows, flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete. |       |          |           |            |
|      | a 150 mm dia External Hydrant   | Mtr   |          | 2,332.00  | _          |
|      | b 100 mm dia (Terrace Ring Main)  | Rmt   | 50.00    | 1,884.00  | 94,200.00  |
|      | c 80 mm dia (Hydrant Post)  | Rmt   | 20.00    | 1,370.00  | 27,400.00  |
| 2.0  | Supplying, Installing, testing and commissioning ISI Mark CI butterfly valves( PN 16) slim seal standared lever operated type with required flanges, nuts, bolts etc. complete  |       |          |           |            |
|      | a 100mm nominal dia(For Ring Main and 4 Way )   | Nos.  | 5.00     | 6,900.00  | 34,500.00  |
| 3.0  | Single headed hydrant valve as per IS 5290, made of S.S with 63 mm dia instantaneous outlet of 80 mm dia fanged inlet ,Blank caps , chain and hand wheels etc complete.   | Nos.  |          | 5,780.00  | -          |
|      |   |       |          |           |            |

| 4.0  | 1 length of 15 M long, 63mm dia RRL hose with instataneous couplings and Hoses shall be stored in side the hose cabinet.  | Nos.       |         | 4,550.00             | -          |
|------|---|------------|---------|----------------------|------------|
| 5.0  | 1 no. S.S short branch pipe with nozzle.  | Nos.       |         | 2,165.00             |            |
| 6.0  | M.S. Hose Cabinet fabricated out of M.S. sheet of 16 swg. with glass fronted (4mm thick glass with rubber beeding) and size of the Cabinet shall be 600 mm (L)x450mm(H)x250mm(Width).Quoted rate shall be includes Hinges, all fasteners etc, and Door shall be powder coated of approved colour both inside and out side.  |            |         | 4,000.00             | -          |
| 7.0  | Coating and wrapping of underground pipelines as per IS 10221: 2008 per running metre.  | Rmt        |         | 650.00               | -          |
| 8.0  | PCC Pedestal  | Nos.       | 20.00   | 750.00               | 15,000.00  |
| 9.0  | 300 MM Hume Pipes as per IS standard  | Rmt        |         | 600.00               | -          |
| 10.0 | Earth Digging and Refilling and making good the same for underground laying of Hydrant Pipe as per IS standard  | Rmt        |         | 100.00               | -          |
| 11.0 | Supplying, installing and commissioning of fire brigade inlet inlet connection of 4 way with 4 nos. 63 mm dia. built - in Gun metal Non-return valves instantaneous coupling type arranged on 150 mm dia. Pipe manifold and connected to wet riser main .   | Nos.       | 1.00    | 10,300.00            | 10,300.00  |
|      | TOTAL   | COST       | EXCLUDI | NG GST               | 181,400.00 |
| 1.0  | FIRE EXTINGUISHERS  Supply installation testing and commissioning of Clean Agent 2 ltrs capacitry Fire Extinguisher with initial charge complete with wall fixing bracket. The extinguisher shall conform to IS 940 and have certification mark engraved.   | Noc        | 18      | 8,500.00             | 153,000.00 |
| 2.0  | Supply installation testing and commissioning of CO2 4.5kg capacitry Fire Extinguisher made from seamless steel cylinder with initial charge complete with wall fixing bracket. The extinguisher shalconform to IS 2878 and have certification mark engraved.   |            | 18      | 6,500.00             | 117,000.00 |
| 3.0  | Supply and installation testing and commissioning of DCP 6kg capacitry Fire Extinguisher with brass forging cap, 120 Gms CO2 gas cartridge inner container, hose and plain nozzle supplied with initial charge complete with wall fixing bracket. The extinguisher shall conform to IS 2171 and have certificate mark engraved.   | Nos        | 18      | 4,000.00             | 72,000.00  |
| 4.0  | Supply installation testing and commissioning of Mechanical foam type 9 ltrs capacitry Fire Extinguisher (AFFFConcentrate) with   |            | 1       | 4,000.00             | 4,000.00   |
| 5.00 | Supply of Fire Buckets  | Nos        | 1       | 1,900.00             | 1,900.00   |
|      | TOTAL   | COST       | EXCLUDI | NG GST               | 347,900.00 |
| 1.0  | Supplying, installing, testing and commissioning of M.S Pipes confirming to IS 1239 Pt - I Medium grade with painting, suitable type of supports (Shall be fabricated by M.S. Channel / Angle / Flat for above 50 mm dia), anchor fasteners, bolts nuts, clamps, "U" bolte, malleable specials such as Reducers, Tees, elbows, flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete. |            |         |                      |            |
|      | a 100mm nominal dia<br>80mm nominal dia   | Rmt<br>Rmt | 100.00  | 1,784.00<br>1,270.00 | 178,400.00 |
| 2.0  | Supplying, Installing, testing and commissioning ISI Mark CI butterfly valves( PN 16) slim seal standared lever operated type with required flanges, nuts, bolts etc. complete  |            |         |                      |            |
|      | a 100mm nominal dia   | Nos.       | 4.00    | 6,900.00             | 27,600.00  |
| 3.0  | Single headed hydrant valve as per IS 5290, made of S.S with 63 mm dia instantaneous outletof 80 mm dia fanged inelt ,Blank caps , chain and hand wheels etc complete.  | Nos.       | 12.00   | 5,780.00             | 69,360.00  |

| 4.0  | 1 lengths of 15 M long, 63mm dia RRL hose with instataneuos couplings and Hoses shall be stored in side the hose cabinet.  | Nos. | 24.00   | 4,550.00   | 109,200.00 |
|------|--|------|---------|------------|------------|
| 5.0  | 1 no. S.S short branch pipe with nozzle  | Nos. | 12.00   | 2,165.00   | 25,980.00  |
| 6.0  | Hose reel drum of swinging type with 19mm dia Rubber braided hose of 30M. length with Gate valve (upstream) and Shut off nozzle, complete.   |      | 12.00   | 6,600.00   | 79,200.00  |
| 7.0  | M.S. Hose Cabinet fabricated out of M.S. sheet of 16 swg. with glass fronted (4mm thick glass with rubber beeding) and size of the Cabinet shall be 600 mm (L)x450mm(H)x250mm(Width).Quoted rate shall be includes Hinges, all fasteners etc, and Door shall be powder coated of approved colour both inside and out side.   |      | 12.00   | 10,700.00  | 128,400.00 |
| 8.0  | Supplying and installation of Fire Air vessel of 150mm dia and 1m high fabricated from 6-8 mm thick M.S. plate suitable for 10kg/sqcm. working pressure with accessories, painted with two coats of Postal red enamel outside over a coat of primer  |      | 2.00    | 15,300.00  | 30,600.00  |
| 9.0  | Supplying, installing and commissioning of fire brigade inlet connection of 4 way with 4nos. 63 mm dia. built - in Gun metal Non- return valves instantaneous coupling type arranged on 150 mm dia. Pipe manifold and connected to wet riser main . Qouted rate shall be included with C.I. Butterfly valve, complete.   | Nos. | 1.00    | 17,650.00  | 17,650.00  |
| 10.0 | Supplying, installing, testing and commissioning of Gun metal /Brass Forged chrome finished Ball valves with fittings of screwed end type.   |      |         | -          | -          |
|      | a 25mm dia.(For hose reel)   | Nos. | 12.00   | 1,180.00   | 14,160.00  |
| E    | TOTAL ( FIRE PUMP ROOM EQUIPMENT   | COST | EXCLUDI | NG GST     | 680,550.00 |
| 1.0  | Supply, erection, testing & commissioning of electrical motor driven main pump of horizontal centrifugal end suction backpull out type with gland packing and capable to deliver 2280LPM at 70MWC.The pump shall be coupled to TEFC motor of suitable HP with speed of 2900 RPM and complete set shall mounted on common base frame. The quoted rate shall includes providing & fixing of coupling, coupling gaurd,etc.  | Nos. |         | 315,000.00 | -          |
| 2.0  | Supply, installation, testing & commissioning of diesel Engine driven common stand by pump, horizontal centrifugal end suction backpull out type with gland packing and capable to deliver 2280LPM at 70MWC. The pump shall coupled to suitable HP of Diesel engine radiator water cooled type with speed of 1800RPM and complete set shall be mounted on common base frame. Batteries & battery leads with stand, Fuel tank ( for 6 Hrs. operation ) with stand & gauge glass, Fuel piping with valves. The quoted rate shall includes radiator water cooling piping (if required) coupling gaurd and other stanadrd accessories. |      |         | 575,000.00 | -          |
| 3.0  | Supply, erection, testing & commissioning of electrical motor driven Jockey pump of horizontal centrifugal end suction back pull out type with gland packing and capable to deliver 180LPM at 70MWC.The pump shall be coupled to TEFC motor of suitable HPwith speed of 2900RPM and complete set shall mounted on common base frame. The quoted rate shall includes providing & fixing of coupling, coupling gaurd etc   |      |         | 118,000.00 | -          |
| 4.0  | Supply, erection, testing & commissioning of electrical motor driven Booster pump with gland packing and capable to deliver 900LPM discharge, with weather proof control panel complete. The quoted rate shall includes providing & fixing of coupling, coupling gaurd etc.  |      | 1.00    | 143,000.00 | 143,000.00 |

| 5.0  | Control Panel for Fire pumps.  |            |       |                       |             |
|------|--|------------|-------|-----------------------|-------------|
| 8    | Fabricating & Supply, installing, testing and commissioning of compartmentalised common control panel for Electrical motor driven pumps and Diesel engine driven pumps.  |            |       | 203,000.00            | -           |
| ŀ    | Fabricating & Supply, installing, testing and commissioning of control panel for Terrace Pump.   | No.        | 1.00  | 25,000.00             | 25,000.00   |
| 6.0  | 1100 V GRADE POWER / CONTROL CABLES  |            |       |                       |             |
|      | Supplying, laying, testing & commissioning of PVC outer sheath, steel armoured, aluminium / copper conductor, 1100v grade power cables with glands etc.The cables shall be laid in tray / Hume pipe / in trenches / on walls / floor etc. as required. For cables laid out door the rate shall exclude earth excavation providing brick and sand protection, refilling and compacting the earth.   |            |       |                       |             |
|      | 95 sq.mm 3.5 Core Aluminium Cable (Main Pump)  | Rmt        |       | 678.56                | -           |
|      | 16 sq.mm 4 Core Aluminium Cable (For Jockey Pump)  | Rmt        | 50.00 | 291.82                | - 14.501.00 |
|      | 1 1.5 sq.mm 1 Core Aluminium Cable (For Booster Pump) 1 1.5 sq.mm 12 Core copper Cable (Diesel Engine)   | Rmt<br>Rmt | 50.00 | 291.82<br>403.00      | 14,591.00   |
| 7.0  | CABLE TRAY   | Kiiit      |       | 403.00                |             |
| 7.0  | Supplying and fixing of perforated G.I.sheet cable tray with neccessory angle iron suspension supports, anchor fasteners etc. complete. Maximum height of suspension shall not exceed 500 mm.  |            |       | 5,100.00              | _           |
| 8.0  | G.I. Earthing strips of 50mm x 6mm thick, strip shall be run on floor / ceiling / walls, from the equipment to the nearest Earth pit with neccessory accessories as required. ( Earth pit shall be executed by other agencies).  |            | 50.00 | 245.00                | 12,250.00   |
| 9.0  | Supplying, installing, testing and commissioning of M.S. Pipes confirming to IS 1239 Pt - I Heavy grade with painting, suitable type of supports, anchor fasteners, bolts nuts, clamps, "U" bolt, malleable specials such as Reducers,Tees, elbows, flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete. |            |       |                       |             |
|      | a 250mm nominal dia  | Rmt        |       | 3,350.00              | -           |
|      | 200mm nominal dia  | Rmt        |       | 2,780.00              | -           |
|      | 150mm nominal dia  | Rmt        |       | 2,332.00              | -           |
|      | 1 100mm nominal dia<br>2 80mm nominal dia  | Rmt<br>Rmt |       | 1,884.00<br>1,370.00  |             |
| 10.0 | Supplying, installing, testing and commissioning of ISI Mark Dual Plate Wafer Type Non-return valves (PN 16) with required flanges, nuts, bolts and gaskets etc. complete  |            |       |                       |             |
|      | 150 mm nominal dia<br>100 mm nominal dia for (Terrace )  | Nos.       | 1.00  | 10,000.00<br>7,250.00 | 7,250.00    |
|      | 2 80 mm nominal dia  | Nos.       | 1.00  | 5,600.00              | 7,230.00    |
| 11.0 | Supplying, Installing, testing and commissioning ISI Mark CI butterfly valves( PN 16) slim seal standared lever operated type with required flanges, nuts, bolts etc. complete.  |            |       |                       |             |
| 2    | a 250mm nominal dia (Tank Connection)<br>150mm nominal dia   | Nos.       |       | 33,500.00             | -           |
|      | c 100mm nominal dia (For Terrace)  | Nos.       | 2.00  | 18,750.00<br>6,850.00 | 13,700.00   |
|      | 1 80mm nominal dia   | Nos.       | 2.00  | 4,450.00              | -           |
| 12.0 | Supplying, Installing, testing and commissioning ISI Mark Rubber<br>Bellow with required flanges, nuts, bolts etc. complete.   |            |       |                       |             |
|      | Lea  | Nos.       |       | 8,300.00              | -           |
|      | a 150mm nominal dia  | _          |       |                       |             |
|      | a 150mm nominal dia 80mm nominal dia Supplying, installing and commissioning C.I.flanged "Y Srainer" with suitable flanges, nuts, bolts, gaskets etc. complete.  | Nos.       |       | 5,600.00              | -           |

|      | b 100mm dia.  | Nos.   | 1.00    | 18,800.00  | 18,800.00  |
|------|---|--|---------|--|--|
| 14.0 | Supply and installation of Pressure switches of suitable range (0 to 12 bar) for pumpsets with Fittings like Ball Valve unions / colors / reducers etc.   | Set  | 1.00    | 5,950.00   | 5,950.00   |
| 15.0 | Supply and installation of Pressure gauges of suitable range (0-16  | Set  | 1.00    | 1,700.00   | 1,700.00   |
| 13.0 | bar), 100 mm diamter dial for pumpsets with Fittings like Ball Valve, Unions / colors / reducers etc.   |  | 1.00    | 1,700.00   | 1,700.00   |
| 16.0 | Supplying and installation of Fire pressure vessel of 300mm dia   | Nos.   | 1.00    | 43,500.00  | 43,500.00  |
|      | and 2.0m high fabricated from 6-8 mm thick M.S. plate suitable for  |  |         |  |  |
|      | 10kg/sqcm. working pressure with accessories, painted with two  |  |         |  |  |
|      | coats of Postal red enamel outside over a coat of primer for automatic operation of pump.   |  |         |  |  |
| 17.0 | Supplying & fixing MS Class 'C' diesel engine exhaust pipe duly   |  |         |  |  |
| 17.0 | insulated with 50mm. thick glass wool with 1 mm, thick  |  |         |  |  |
|      | aluminium sheet cladding, residential silencer, including all fittings,   |  |         |  |  |
|      | clamps, steel support of suitable dia for the engine. The pipe shall  |  |         |  |  |
|      | be provided with 12 mm thick supercera ceramic fibre rope.  |  |         |  |  |
| a    | 80mm dia  | Rmt  |         | 2,000.00   | -  |
| 18.0 | 12V 10A Float Cum Boost Charger   | Nos.   |         | 9,500.00   | -  |
| 19.0 | Anti Vibration Mounts   | Nos.   |         | 3,000.00   | -  |
| 20.0 | Supplying, installing, testing and commissioning of flow switch   |  |         |  |  |
|      | (water flow detector), Flow switch shall have a paddle made of  |  |         |  |  |
|      | flexible material of the widthto fit within the pipe bore. The  |  |         |  |  |
|      | terminal box shall be mounted over the paddle/ pipe through a connecting socket. The switch shall be potential free in either NO  |  |         |  |  |
|      | or NC position as required. The switch shall be able to trip and  |  |         |  |  |
|      | make/ break contact on the operation of a sprinkler head. The   |  |         |  |  |
|      | terminal box shall have connections for wiring to the Fire alarm  |  |         |  |  |
|      | panel. The seat shall be of stainless steel. The flow switch shall  |  |         |  |  |
|      | have IP: 55 protection.   |  |         |  |  |
|      | a 100mm dia   | Nos.   |         | 12,000.00  |  |
| 21.0 | Entire fire Supression /FACP /Fire Telephone System   | LS   | 1.00    | 25,000.00  | 25,000.00  |
|      | Instrumentaiton, Integration, testing & training charges.   |  |         |  |  |
|      |   | COST   | EXCLUDI | NG GST   | 310,741.00   |
| 1.0  | AUTOMATIC SPRINKLER SYSTEM  Supplying, installing, testing and commissioning of M.S. Pipes  |  |         |  |  |
| 1.0  | confirming to IS 1239 Pt - I Heavy grade with painting, suitable  |  |         |  |  |
|      | type of supports ( for above 50 mm dia, shall be fabricated by M.S.   |  |         |  |  |
|      | Channel / Angle / Falts etc), anchor fasteners, bolts nuts, clamps,   |  |         |  |  |
|      |   |  |         |  |  |
|      | "U" bolte, malleable specials such as Reducers, Tees, elbows,   |  |         |  |  |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by   |  |         |  |  |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall   |  |         |  |  |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by   |  |         |  |  |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in   |  |         |  |  |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and   |  |         |  |  |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  | Rmt  | 125.00  | 1,884.00   | 235,500.00   |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  a 100mm nominal dia b 80mm nominal dia  | Rmt<br>Rmt                                     | 125.00  | 1,370.00   | 235,500.00   |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  | Rmt  | 125.00  |  | -  |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  a 100mm nominal dia b 80mm nominal dia c 65mm nominal dia   | Rmt<br>Rmt<br>Rmt                              |         | 1,370.00<br>1,152.00   | -  |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  a 100mm nominal dia b 80mm nominal dia c 65mm nominal dia d 50mm nominal dia e 40mm nominal dia f 32mm nominal dia  | Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt         | 150.00  | 1,370.00<br>1,152.00<br>960.00<br>702.00<br>574.00           | 144,000.00<br>-  |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  a 100mm nominal dia b 80mm nominal dia c 65mm nominal dia d 50mm nominal dia e 40mm nominal dia f 32mm nominal dia g 25mm nominal dia   | Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt                |         | 1,370.00<br>1,152.00<br>960.00<br>702.00                     | 144,000.00<br>-<br>-                                       |
| 2.0  | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  a 100mm nominal dia b 80mm nominal dia c 65mm nominal dia d 50mm nominal dia e 40mm nominal dia f 32mm nominal dia g 25mm nominal dia Supplying, Installing, testing and commissioning CI butterfly   | Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt         | 150.00  | 1,370.00<br>1,152.00<br>960.00<br>702.00<br>574.00           | 144,000.00<br>-<br>-                                       |
| 2.0  | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  a 100mm nominal dia b 80mm nominal dia c 65mm nominal dia d 50mm nominal dia e 40mm nominal dia f 32mm nominal dia g 25mm nominal dia Supplying, Installing, testing and commissioning CI butterfly valves ( PN 16) as per BS 5155 slim seal standared lever operated   | Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt         | 150.00  | 1,370.00<br>1,152.00<br>960.00<br>702.00<br>574.00           | 144,000.00<br>-<br>-                                       |
| 2.0  | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  a 100mm nominal dia b 80mm nominal dia c 65mm nominal dia d 50mm nominal dia e 40mm nominal dia f 32mm nominal dia g 25mm nominal dia Supplying, Installing, testing and commissioning CI butterfly   | Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt         | 150.00  | 1,370.00<br>1,152.00<br>960.00<br>702.00<br>574.00           | 144,000.00<br>-<br>-                                       |
| 2.0  | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  a 100mm nominal dia b 80mm nominal dia c 65mm nominal dia d 50mm nominal dia e 40mm nominal dia g 25mm nominal dia Supplying, Installing, testing and commissioning CI butterfly valves ( PN 16) as per BS 5155 slim seal standared lever operated type with required flanges, nuts, bolts etc. complete  | Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt         | 150.00  | 1,370.00<br>1,152.00<br>960.00<br>702.00<br>574.00<br>480.00 | 144,000.00<br>   |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  a 100mm nominal dia b 80mm nominal dia c 65mm nominal dia d 50mm nominal dia e 40mm nominal dia g 25mm nominal dia Supplying, Installing, testing and commissioning CI butterfly valves (PN 16) as per BS 5155 slim seal standared lever operated type with required flanges, nuts, bolts etc. complete  a 100mm nominal dia b 80mm nominal dia   | Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt         | 150.00  | 1,370.00<br>1,152.00<br>960.00<br>702.00<br>574.00<br>480.00 | 144,000.00<br>   |
| 2.0  | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  a 100mm nominal dia b 80mm nominal dia c 65mm nominal dia d 50mm nominal dia e 40mm nominal dia g 25mm nominal dia Supplying, Installing, testing and commissioning CI butterfly valves (PN 16) as per BS 5155 slim seal standared lever operated type with required flanges, nuts, bolts etc. complete  a 100mm nominal dia b 80mm nominal dia Supplying, installing, testing and commissioning of hydraulically   | Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt<br>Nos. | 150.00  | 1,370.00<br>1,152.00<br>960.00<br>702.00<br>574.00<br>480.00 | 144,000.00<br>   |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  a 100mm nominal dia b 80mm nominal dia c 65mm nominal dia d 50mm nominal dia e 40mm nominal dia g 25mm nominal dia Supplying, Installing, testing and commissioning CI butterfly valves (PN 16) as per BS 5155 slim seal standared lever operated type with required flanges, nuts, bolts etc. complete  a 100mm nominal dia b 80mm nominal dia Supplying, installing, testing and commissioning of hydraulically operated Sprinkler control valve, with water motor gong bell and  | Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt<br>Nos. | 150.00  | 1,370.00<br>1,152.00<br>960.00<br>702.00<br>574.00<br>480.00 | 144,000.00<br>   |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  a 100mm nominal dia b 80mm nominal dia c 65mm nominal dia d 50mm nominal dia e 40mm nominal dia g 25mm nominal dia Supplying, Installing, testing and commissioning CI butterfly valves (PN 16) as per BS 5155 slim seal standared lever operated type with required flanges, nuts, bolts etc. complete  a 100mm nominal dia b 80mm nominal dia Supplying, installing, testing and commissioning of hydraulically operated Sprinkler control valve, with water motor gong bell and trims as required, pressure gauges, drain valves, ball valves, check | Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt<br>Nos. | 150.00  | 1,370.00<br>1,152.00<br>960.00<br>702.00<br>574.00<br>480.00 | 144,000.00<br>   |
|      | flanges. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc, as per drawings. The quoted rate shall also include for chasing / chipping walls, making bore holes in walls / floor and making them good with filler material and finished in cement morter etc. complete.  a 100mm nominal dia b 80mm nominal dia c 65mm nominal dia d 50mm nominal dia e 40mm nominal dia g 25mm nominal dia Supplying, Installing, testing and commissioning CI butterfly valves (PN 16) as per BS 5155 slim seal standared lever operated type with required flanges, nuts, bolts etc. complete  a 100mm nominal dia b 80mm nominal dia Supplying, installing, testing and commissioning of hydraulically operated Sprinkler control valve, with water motor gong bell and  | Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt<br>Rmt<br>Nos. | 150.00  | 1,370.00<br>1,152.00<br>960.00<br>702.00<br>574.00<br>480.00 | 235,500.00<br>-<br>-<br>144,000.00<br>-<br>-<br>120,000.00 |

| 4.0      | Supplying, installing, testing and commissioning conventional   |      |         |            |           |
|----------|---|------|---------|------------|-----------|
|          | Sprinkler quartzoid bulb type with 15mm screwed end connection  |      |         |            |           |
|          | of 68 deg. C. temperature rating, K 80 and orifice shall not be less  |      |         |            |           |
|          | than 6mm.Sprinklers shall be UL Listed / FM approved with   |      |         |            |           |
|          | Chrome finished.  |      |         |            |           |
|          | Upright Sprinkler   | Nos  |         | 390.00     |           |
| b        |   | Nos  |         |            |           |
|          |   | +    | 100.00  | 450.00     | 20,000.0  |
| С        | 1   | Nos  | 100.00  | 390.00     | 39,000.0  |
| 5.0      | Supplying, installing, testing and commissioning of Gun metal   |      |         |            |           |
|          | /Brass Forged chrome finished Ball valves with fittings of screwed  |      |         |            |           |
|          | end type.   |      |         |            |           |
|          |   |      |         |            |           |
| 9        | 50mm dia.(Drainage)   | Nos. | 1.00    | 3,320.00   | 3,320.0   |
| ( )      |   |      | 1.00    | 3,320.00   | 3,320.0   |
| 6.0      | Supplying, installing, testing and commissioning of Stainless steel   |      |         |            |           |
|          | corrugated flexible pipe(hose) for dropping sprinklers below false  | Data |         |            |           |
|          | ceiling, pipe shall be 16 bar pressure rating and 1500 mm long 25   | Only |         | 1,700.00   |           |
|          | mm dia with union / reducer collar, clamps etc. as required.  | Omy  |         |            |           |
|          |   |      |         |            |           |
| 7.0      | Supplying, installing, testing and commissioning of flow switch   |      |         |            |           |
|          | (water flow detector), Flow switch shall have a paddle made of  |      |         |            |           |
|          | flexible material of the widthto fit within the pipe bore. The  |      |         |            |           |
|          | terminal box shall be mounted over the paddle/ pipe through a   |      |         |            |           |
|          | connecting socket. The switch shall be potential free in either NO  |      |         |            |           |
|          | or NC position as required. The switch shall be able to trip and  |      |         |            |           |
|          | make/ break contact on the operation of a sprinkler head. The   |      |         |            |           |
|          | terminal box shall have connections for wiring to the Fire alarm  |      |         |            |           |
|          | panel. The seat shall be of stainless steel. The flow switch shall  |      |         |            |           |
|          | -   |      |         |            |           |
|          | have IP: 55 protection.   |      |         |            |           |
|          |   |      |         |            |           |
| a        | 100mm dia   | Nos. | 1.00    | 12,000.00  | 12,000.0  |
|          | TOTAL   | COST | EXCLUDI | NG GST     | 567,620.0 |
| G        | STAIR CASE AND LIFE PRESSURISATION  |      |         |            |           |
|          | Supply, erection, testing and commissioning of ceiling  |      |         |            |           |
|          | _ == = = = = = = = = = = = = = = = = =  |      |         |            |           |
|          | hunged Tube Axial flow fans with adjustable pitch blade,  |      |         |            |           |
|          | MS casing, cast aluminium alloy impeller complete   |      |         |            |           |
|          | with TEFC Sq. Cage Induction motor suitable for 415 volts   |      |         |            |           |
| 1        | $\pm$ 10%, 50Hz $\pm$ 3 %, 4 pole, three phase A.C supply of class  |      |         |            |           |
|          | "F" insulation with support, mountings with vibration   |      |         |            |           |
|          | isolator spring and fire rated canvas flexible connection etc.  |      |         |            |           |
|          | & of following capacity as per approved shop drawings.  |      |         |            |           |
|          | as per approved shop drawings.  |      |         |            |           |
|          | 0 . D 16 E E  |      |         |            |           |
|          | Starter Panel for Fans The starter should be capable to run   |      |         |            |           |
| a        | automatically in case of fire. Operation of the Fan will only   | Nos. | 1       | 25,000.00  | 25,000.0  |
|          | in case of Fire .   |      |         |            |           |
| b        | For Staircase Pressurisation:   | Nos. |         | 485,000.00 | -         |
|          | Air Qty. $= 14,500 \text{ CFM}$   |      |         |            |           |
|          | Static Pressure = 30 mm Wg  |      |         |            |           |
|          | Motor = Not exceed 7.5 Kw.  |      |         |            |           |
|          |   | Mag  | 1       | 265,000,00 | 265,000,0 |
| C        | Lift Well   | Nos. | 1       | 265,000.00 | 265,000.0 |
|          | Air Qty. = $6,500 \text{ CFM}$  |      |         |            |           |
|          | Static Pressure = 30 mm Wg  |      |         |            |           |
|          | Motor = Not exceed 3.7 Kw.  |      |         |            |           |
|          | TOTAL   | COST | EXCLUDI | NG GST     | 290,000.0 |
|          | SIGNAGES  |      |         |            |           |
| Н        |   |      |         |            |           |
| <b>H</b> | Providing and installing in position the following type of sign   |      |         |            |           |
|          | Providing and installing in position the following type of sign<br>boards made out of 3mm thick "Opaque" PVC foam board with  |      |         |            |           |
|          |   |      |         |            |           |
|          | boards made out of 3mm thick "Opaque" PVC foam board with computer cut, PVC non-reflective self adhesive vinyle painted   |      |         |            |           |
|          | boards made out of 3mm thick "Opaque" PVC foam board with computer cut, PVC non-reflective self adhesive vinyle painted foam board, complete with mirror fasteners.   |      |         |            |           |
|          | boards made out of 3mm thick "Opaque" PVC foam board with computer cut, PVC non-reflective self adhesive vinyle painted foam board, complete with mirror fasteners.  Floor indentification signage ( ie, GROUND FLOORetc.) at   |      |         | -          |           |
|          | boards made out of 3mm thick "Opaque" PVC foam board with computer cut, PVC non-reflective self adhesive vinyle painted foam board, complete with mirror fasteners.  Floor indentification signage ( ie, GROUND FLOORetc.) at each stair enclosure on every floor, indicating the floor number in   |      |         | -          |           |
|          | boards made out of 3mm thick "Opaque" PVC foam board with computer cut, PVC non-reflective self adhesive vinyle painted foam board, complete with mirror fasteners.  Floor indentification signage (ie, GROUND FLOORetc.) at each stair enclosure on every floor, indicating the floor number in words, lettering size shall be 7.5 cm with contrasting colour from |      | 12.00   | 650.00     | 7,800.0   |
|          | boards made out of 3mm thick "Opaque" PVC foam board with computer cut, PVC non-reflective self adhesive vinyle painted foam board, complete with mirror fasteners.  Floor indentification signage ( ie, GROUND FLOORetc.) at each stair enclosure on every floor, indicating the floor number in   |      | 12.00   | 650.00     | 7,800.    |

| b      | Providing and fixing the signages "Fire Exit, Fire Exit Arrow Down, Fire Exit Arrow Left, Fire Exit Arrow Right" of 1.5in height letters in white with green back ground. The size of the board shall be 25cm x 15 cm and shall be fixed at the height of 2 mts | Nos   | 36.00     | 650.00                  | 23,400.00                                 |
|--------|---|-------|-----------|-------------------------|---|
| С      | Providing and fixing the signages "In case of fire pull down - with Manual call point symbol ". Size $6$ " x $8$ "  | Nos   | 12.00     | 400.00                  | 4,800.00                                  |
| d      | Providing and fixing the signages "Main fire alarm panel." Size $6$ " x $8$ "   | Nos   | 1.00      | 500.00                  | 500.00                                    |
| e      | Providing and fixing the signages "In case of fire, Do not use Lift, Use Stair - with symbol." Size 8" x 8"   | Nos   | 12.00     | 550.00                  | 6,600.00                                  |
| f      | Providing and fixing the signages "Assembly point - with symbol (A2 Size)" - Size 17" x 22"   | Nos   | 1.00      | 950.00                  | 950.00                                    |
| g      | Illumination Glow light for Exit Indication with Battery Back-up.   | Nos   |           | 6,500.00                | -   |
|        | TOTAL   | COST  | EXCLUDI   | NG GST                  | 44,050.00                                 |
|        | TOTAL CO.   |       |           |                         |   |
|        | TOTAL CO  | ST (A | TO H) EX  | CLUDING GST             | 2,764,741.00                              |
|        | TOTAL CO  | ST (A | ТО Н) ЕХО | CLUDING GST<br>CESS @1% | 2,764,741.00<br>27,647.41                 |
|        | Total Estimated Cost  | ST (A | ТО Н) ЕХО |                         | , ,                                       |
|        |   | ST (A | TO H) EXC |                         | 27,647.41                                 |
| EXCESS | Total Estimated Cost  | ST (A | TO H) EXC |                         | 27,647.41<br>2,792,388.41<br>2,792,388.00 |
| EXCESS | Total Estimated Cost  Total Estimated Cost in Figures   | ST (A | то н) ехс | CESS @1%                | 27,647.41<br>2,792,388.41<br>2,792,388.00 |

N:B- The Estimated cost is exclusive of GST.

Signature of Tenderer with seal

Sd/-

Asst. Project Manager (Elect)

Sd/-

Asst. Project Manager (Elect)(Hqr)

Sd/-

Project Manager(Elect.)